COVID-19 Utility Resilience Planning

MITIGATION PLANNING CONSIDERATIONS TO ALLEVIATE UTILITY CHALLENGES CAUSED BY COVID-19 PANDEMIC

BLACK & VEATCH
Resilience Planning Amplified

Vulnerability and emergency response planning for the COVID-19 pandemic goes far beyond the norm for water and wastewater utilities. Previous resilience planning likely focused on business continuity, asset vulnerability and emergency response. However, planning with the impacts of COVID-19 in mind means greater magnitude and longer duration of impacts to the utility’s workforce, vendors, consultants and contractors.

COVID-19 has impacted nearly all functional areas of water and wastewater utilities, from utility operations to capital planning and from safety, health and wellness to financial planning.

Seven Areas of Adversity and Mitigation Planning Considerations

Utilities are rapidly responding to mitigate impacts from the initial challenges – all while continuing to deliver safe, reliable service to their customers. As they continue to respond to the challenges posed by COVID-19, utilities should consider the following as part of resilience planning as they move forward in these unprecedented times.
WORKFORCE

- Establish a pandemic team with defined roles and responsibilities for preparedness, response and recovery planning.
- Plan for environmental cleaning and decontamination.
- Define who is a critical service employee.
  - Critical services are functions and duties that are required to be done and cannot be deferred during an emergency; these duties must be performed continuously or resumed quickly following a disruption.
- Create a policy for high risk professionals.
  - Consider alternate work schedule/location request.
- Determine which employees can work remotely.
- Create a plan for reporting confirmed or presumptive COVID-19 diagnosis.
- Decide how the utility will identify and inform potentially exposed co-workers, vendor, or contractors if an employee is confirmed to have COVID-19.
- Develop and communicate self-quarantine guidelines for individuals who are exposed.
- Determine how the organization will inform local health officials.
- Establish policies for employee compensation and sick-leave absences unique to a pandemic.
- Consider employee absences during a pandemic due to factors such as personal illness, family member, illness, community containment measures, agency closures, and public transportation closures. Time away for sick or dependent sick care.
- Clarify leave options.
- Develop a plan for when personnel may return to work, including potential phased transition or different role sensitive to other employees.
- Provide resources for employee assistance programming, including stress, anxiety and fears related to coronavirus.

SAFETY, HEALTH AND WELLNESS

- Educate staff on COVID-19, how it’s spread, and how to minimize risk. Develop training and signage, leveraging CDC resources.
- Communicate and encourage employees to STAY HOME if sick.
- Focus on social distancing. Maintain 6-foot distancing in all areas.
- Minimize in-person meetings.
- Use face-coverings.
- Procure hand sanitizer/disinfectant wipes for hands and surfaces.
- Consider additional hand-washing facilities.
- Require all subcontractors/consultants to submit a COVID-19 site preparedness plan.
- Develop requirements for subs to report confirmed positive cases as soon as possible.
- Set requirements for return-to-office for any positive/presumed/symptomatic employee and for subcontractors/consultants.
- Implement temperature screenings or additional health and wellness monitoring for high-risk staff.
- Develop signage for visual reminders about social distancing/proper hand washing/face coverage/cleaning and disinfection.
- Develop plan for return-to-office for employees/staff consider phase approached or alternate weeks.
- Review administrative offices floorplan to allow for social distancing.
- Consider ergonomic resources for those working at home.
- Develop communications for mental well-being focused on resources to assist.
**FINANCIAL PLANNING**

- Review policies and procedures to ensure ability to make decisions regarding customer economic impacts.
- Establish a method of operation for handling delinquencies, late fees, and service cutoffs.
- Consider payment plans for customers impacted.
- Consider potential grants, or subsidies (such as from the general fund) to offer “crisis” assistance.
- In the absence of current, applicable billing data, monitor daily production data during the impacted time frame to help determine impact on flows and consumption.
- Consider possibility of rate/tier adjustments to provide customer assistance.
- Consider policies toward reserve funding.
- Consider the possibility for debt refunding and stimulus funding.
- Review options for alternative funding sources such as WIFIA/SRF/other alternative funding.

**OPERATIONS FIELD AND FACILITY**

- Identify critical staff and develop emergency response plans (assess exposure potential, review job procedures, develop specific safety, health and wellness guidelines or best practices).
- Consider staggered or split shifts for critical/essential employees. Establish distinct teams for cyclical operations shifts to provide resilience.
- Use proper personal protective equipment when around or handling raw wastewater.
- Use sound hygiene practices such as frequently washing your hands, changing clothes prior to leaving the site at the end of the day, or disinfecting areas such as break rooms, control room, or vehicles.
- Develop a contingency plan if work personnel get sick, such as having call lists for other utilities, retired operations personnel, or consultants (operations specialist) who could fill in for sick personnel.
- Consider reduced sampling of process control samples. Continue all permit required sampling as required to be compliance.
- Develop and implement alternative standard operating procedures and/or operator round sheets to minimize exposure of workers to virus and to manage workload of a reduced staff due to sickness.
- Prioritize maintenance activities to perform critical tasks as necessary to avoid exposure.
- Be proactive in communicating to stakeholders your efforts to deal with COVID-19 in order to gain or maintain public trust.
- Understand and manage potential supply chain disruptions for chemicals, spare parts, personal protective equipment, and other consumables.
- Document cost impacts of COVID-19 to the utility which may be reimbursable from the federal government during the declaration of emergency.
- Consider isolated or remote “control” facilities for critical operations staff.
**MANAGEMENT OPERATIONS/CAPITAL PLANNING/AM**

- Establish a cross functional team to undertake scenario planning related to COVID (vary duration - short, medium, long, waves; understanding impacts to CIP, operations, information technology, financial).
- Develop dashboards to provide command center level access for decision makers, crisis management and leadership team, to identify and mitigate risks early (e.g. operational, ongoing projects, financial planning and revenue monitoring).
- Implement stepwise gap mitigation bringing in digital and remote support systems through remote access and staff shadowing.
- Utilize digital reporting to provide continuity in water quality recording and wastewater compliance, alarm attendance during off hours, also coordinating with regulators to ensure permit compliance.
- Assess stockpiles of critical spares, review lead times, and adjust spares strategy as needed.
- Review approach to mutual aid programs, like WARN, to provide additional workers if needed. Assess whether there is possibility to supply some types of workers to such programs.
- Assess whether some of the organization’s facilities are business critical. Review provisions for staffing these facilities. Review accommodations for “shelter in place.” Assess enhancements to these, if needed to facilitate business continuity.
- Network with peer and neighbor utilities for knowledge transfer, best practices, support planning and communication consistency.

**INFORMATION MANAGEMENT DIGITAL, DATA AND IT**

- Develop updated office and field staff responsibility, and shift plans to monitor the process and make adjustments as required. Identify skill gaps due to lost staff, reduced shifts or contracting challenges.
- Develop dashboards to provide command center level access for decision makers, crisis management and leadership team, to identify and mitigate risks early (e.g. operational, ongoing projects, financial planning and revenue monitoring).
- Interview cross section of board, customers, senior, middle management staff, suppliers and partners to assess the effectiveness of COVID-19 response. Course correct as necessary. Document lessons learned in AWIA Emergency Response Plan (ERP).
  - Assess cadence of senior management meetings to review actions.
- Use asset criticality to prioritize O&M in light of reduced staffing and/or budgets.
  - Consider balancing investments in aging infrastructure with investments in resilience.
  - Prioritize maintenance to focus on critical assets only, reduce frequency of non-critical maintenance activities.
- Develop a plan and implement sensor based monitoring, in coordination with the compliance team.
- Implement out of hours call-out/standby plans, supplement staff with subject matter experts for remote assistance.
- Review and implement clean-up of incoming data streams and unify the incoming data effectively processing remotely and digitally.
- Developing a digital twin of your operations, starting from a skeleton of essential functions, for monitoring and remote visualization and operation transition, asset conditions tracking, work orders management, remote operations, and failure mitigation.
COMMUNICATIONS  EXTERNAL

- Keep websites and social media updated and informative.
- Communication is expected. Many voices will fill the silent void.
- Take care with tone - have a kind, compassionate, empathetic, trustworthy tone in communications. Put people and safety first. Be human. Trust is what’s needed right now.
- Focus on clarity and simplicity of message. Remember that when stressed, people need information broken into chunks to aid in clarity.
- Have an FAQ format to stay up to date on needs and current with questions.
- Use imagery from your library to allow the public to see with operational transparency. Photos of facilities. Photos of water quality analysis. Photos of professionals appropriately working in the field.
- Capitalize on opportunity to raise public awareness regarding the critical service we provide. The critical nature of water. Even what gets flushed and what doesn’t. Maximize opportunities to educate on the criticality of water.
- Communicate that your water is safe.
- Communicate what you’re doing about delinquencies and shutoffs. Compassionately recognize how to move forward when the bill comes due, and communicate how you will handle.
- Identify your spokespersons, recognizing that they may not always be the CEO.

COMMUNICATIONS  INTERNAL

- Trust your gut. What would reasonable people expect a responsible organization to do in this situation?
- Your staff are your ambassadors. Let them help you tell your story. They are living with the crisis, too. Highlight the people who make it work!
- Senior management best practices are key communication needs during a crisis.
- Have a FAQ format to stay up to date on needs, and current with questions.
- Have draft statements prepared for both internal and external in case of larger people issues (positive tests, illnesses, hospitalization, death).
- Short video messages. Short email messages. Repeat messages in various channels (multi-channel, multi-tactic). Recognize that some may even need messages texted to them in the field.
- Use social media to reach employees and customers. Let employees be honorary members of the communications team. Arm them with material to share.
As initial COVID-19 response and impact mitigation actions are implemented and the full impacts of the pandemic are further understood, utilities are gaining a heightened situational awareness. As a result, they will be able to plan for and adapt to the longer-term challenges, as well as refine business processes to withstand similar events and challenges in the future.