Emergency Response Plans & Response Culture

- Response capacity is supported by emergency response plans (ERP) that not only are kept current, are supported by resources, staff awareness, preparedness activities but also by an explicit concept of a "Preparedness Culture"

- Emergency Response Plans development includes organizational commitment;

- Participation

- Planning

- Messaging

- Recognition

Preparedness Culture

- The development of a preparedness culture creates the foundation for preparedness programs.

- A Preparedness Cultures is support by plans, tools and a visible and recognizable commitment that is easily communicated and is branded.

- Elements of a Preparedness Culture involve:
  - ➢ Explicit Commitment from the top & key program stakeholders
  - ➢ Development: ERPs, Printed Material; Participation, Training, Awareness, Branding, Communication
  - ➢ Support, Adoption, Funding
  - ➢ Evaluation, Renewal, Revisions

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Supporting the Culture: ERP
Risk Assessment, Development & Design

- Water Distribution Systems continue to be the focus of increased risk and the need for readiness from an emergency management perspective continues to grow.

- When developing an ERP, consider how the plan might support the Preparedness Culture;

- How the ERP contributes to the response of incidents/threats and their consequences;

- Consider the ERP to optimize quick action that can be holistically positioned;

- Think about the response team needs.

Emergency Management Plans:
Risk Assessment and Critical Self-Analysis

- A template gets you started, but analysis of your risk and consequences is warranted to drive your ERP.

- As more serious non-routine emergencies continue to growing, applying risk assessments and critical self-analysis to ERP development are important considerations.

- The process of emergency response planning share some common elements that can be leveraged in providing staff with the information they need during actual emergencies, support the preparedness culture and stay in pace to the dynamic emerging risks: malevolent incidents, vandalism, natural disasters, power interruption, contaminants, cyber-attacks, pandemics, drone threat, even human error.

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Risk Assessment & Critical-Self Analysis

- A Risk Assessment approach should be considered;

- Analyze your risk by Incident Type, Risk and Consequence, internal readiness,

- Needs: multi-agencies collaborations, expertise and resources.

- So, What do we think about as we draft: A risk/threat-based to guide Plan design.

- Consider:
  - ➤ Incident Type
  - ➤ Likelihood/Probability
  - ➤ Consequences/Impact
  - ➤ Mitigation/Countermeasures/Response
  - ➤ Recognition/Communication/Knowledge Management

- A risk-base criteria that measures incidents and scenarios are key to guide Plan development but consider leveraging design, core and specific response procedures for response optimization through;
  - ➤ Hardwiring processes, standardization and recognition
  - ➤ Re-enforcement of Requirements
  - ➤ Holistic response rather than Plan proliferation & complexity
  - ➤ Assist response team Recall
  - ➤ Format design/structure as a multi-purpose tool
  - ➤ Creating Plans that work, are relevant and fits for system type, size and complexity & Works for staff

- Optimize solutions and mitigation options that guide optimal planning and responses.

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Plan Considerations

- Ask yourself are we designing to the emergency or are we designing to a provided response rules from a larger set of response?

- Designing supporting vulnerability mitigation through systemic activities/rules that guide internal response teams and coordination with external responding agencies, regulatory obligations and drills down to specific threat response.

- So how do we get started? Asking fundament questions in Plan development.
  - ➢What can go wrong?
  - ➢What is the likelihood that it would go wrong?
  - ➢If it does occur, what are the consequences?
  - ➢How do we respond?

- Considers the **worst reasonable case scenario,** design in a risk-based approach.

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Elements of a Risk-base Plan

- Begin with a Template Plan. ☺ Consider One Plan Design and design responses based on your risk.

- Begin with what is required: Regulations and Requirements

- Leverage Core Procedures and augment with Incident Specific Procedures;

- Tables/Flow Charts/Attachments/Sections/Forms/Templates: Keep multipurpose in mind; Words & Terms Standardization;

- Perform your risk assessment and Critical Self-Analysis "resilience assessment". Be candid!
  - ➢ **WHAT CAN HAPPEN**: Incident Type, characterization of critical scenarios:
    - ➢ events ranging from rare extreme-impact scenarios;
    - ➢ scenarios associated with lower consequence but maximum risk;
    - ➢ scenarios with different levels of credibility;
  - ➢ **LIKELIHOOD**: Likelihood scenarios rating;
    - ➢ prevalence/ & frequency
    - ➢ emerging risks
  - ➢ **WHAT ARE THE CONSEQUENCE**: Consequences rating for impact:
    - ➢ internal operations and disruption;
    - ➢ external to consumers potential consequence;
    - ➢ lower and maximum consequence scenarios;
    - ➢ regulatory implications;
  - ➢ **HOW TO RESPONSE**: Mitigation efforts:
    - ➢ response fundamentals and actions;
    - ➢ investigation, remediation efforts;
    - ➢ possible response actions and needs;
    - ➢ procedures: core and specific;
    - ➢ communication & coordination internal and external.

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Design: Standardization & Core Procedures

- Standardization, Consistency Matters: Keep it simple, consider multi-purpose
- Evaluated what sections of are adaptive to Branding, Standardization & Core Procedures

  ➤ Design & Format

  ➤ System Information, Access Routes/Maps & Design Plans

  ➤ Response Fundamental & Related Phases Cycle: Investigate, Remediate, Communicate

  ➤ Roles and Names/Functions: Emergency Response Teams & Plan Glossary

  ➤ Communication & Information Management Procedures: Methods and Alternative Communication Platform outside of networks & Information dissemination procedures

  ➤ Chain of Command and Lines of Authority (the first response step)

  ➤ Emergency Notification Procedures (defined who oversee and who carriers out, activation of call up lists & Alerts Systems (internal, Inter-facility and eternal)

  ➤ Handling of incoming inquires & call and administrative support

  ➤ Coordination with providing information to customer, public and media Harmonize Risk Communication Plans roles, procedures, action and templates

  ➤ Partnership; local community groups, emergency planning committees , law enforcement , local primary agency, drinking water officials, city officials and emergency responders and priority customers

  ➤ Personnel notification on-call or off-duty & Effective communication strategy

  ➤ Security Measures and Notification of Services contractors and repair contractors; Supply chain management

  ➤ Contacting neighboring water systems for assistance and arranging alternative water supply procedures

  ➤ Standardization in down time procedures & technological challenges readiness

  ➤ Training & Exercises (Drills, Tabletops), functional exercises, education

  ➤ Documentation management & budget management

Design: Incident Specific Procedures

- Prioritize steps to be taken (immediate actions to save lives, reduce injuries and system damage)
- Bullet out starting points for each risk/incident/threat actions, notifications and follow-up actions
- Repairs on a priority demand basis to mitigate
- Leverage Tables/Flow Charts/Attachments/Sections/Forms: Multipurpose in mind; Words & Terms Standardization
- Design with multipurpose use in mind.
- Identify and address Specific Response Procedures or Elements Design for Incident Specific Responses identified in your risk assessment.
  - ➢ Coordinate and dovetail with other ERP internally & externally do not repeat
  - ➢ Specific Response Fundamental & Related Phases Cycle: Investigate, Remediate, Communicate
  - ➢ Equipment, Suppliers/Supplies, Vendors
  - ➢ Resources & Responding Partners
  - ➢ Key logistic assistance providers, responders and medical services, mutual aid, MOU arrangements
  - ➢ Use, Storage and Handling of Chemicals/locations
  - ➢ Address specialized procedures & SOPs & Downtime procedures
  - ➢ Include information on detection, delay and response to incidents
  - ➢ Completement do not repeat core procedures
  - ➢ Consider portability and optimization of use

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Partnership & Getting Started:

- Evaluate the Strength of Your Preparedness Culture
  - ➢ Organizational commitment
  - ➢ Aim to develop the culture supported by Tools and Tactics (Your Brand)

- Risk Assessment & Critical Self Analysis
  - ➢ Use a risk assessment tool
  - ➢ Be critically honest
  - ➢ Define your Goals
  - ➢ Assess your threats

- Develop an ERP
  - ➢ Consider types of Plans
  - ➢ Components
  - ➢ Maintenance

- Partnership and Mutual Aid
  - ➢ Identify Key Partners
  - ➢ Collaboration
  - ➢ Coordination with Local, State and Federal Incident Responders and External Agencies
  - ➢ Management and ERP Teams
  - ➢ Socialize your ERP

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Partnership & Getting Started:

- Communication, Communication, Communication
    - General Communications
    - Internal Communication including Employees, branding
    - Communication with Emergency Response Agencies and Local Agencies and Government
    - Customer and Public at large, Media
    - Regulatory Agencies
    - Maintenance and deployment contacts and communication platforms and venues
    - Communication Platforms and & Technology (moving beyond a call)
- Training and Exercises
- Mitigation
- Ongoing Evaluation

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Considerations for Future Work

- Plans that address diverse threat scenarios and multi-incident response may serve best to guide the actions to be taken by response staff, while staying in pace in a dynamic environment and promoting team knowledge management and recognition.

- Additionally, the support of standardization and consistency in Plan development and tools aids in readiness via branding, standardization and simplification to serve response teams recall in emergencies.

- Multi-purpose Plans as a mitigation tool assist in guiding managers and response teams' activity that at times is based on information, past real events, likelihood and at times hypothetical information with uncertainty estimated.

- ERP that aid in emergency readiness response can assist in readiness and recognition, training, buy in and collectively forming an important element of a Preparedness Culture.

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- Emergency Response for Drinking Water and Wastewater Utilities | US EPA

- National Infrastructure Protection Plan and Resources | CISA