



Homeland Security
and Emergency Services

Dam Safety Planning in New York State

Presented by the NYS Office of
Emergency Management

October, 2015

Why are we here?

- Newly promulgated regulations requiring dam “facility” planning.
- Warrants off-site involvement and should instill local government planning efforts.
- Overview planning guidance.
- Provide clarity on the scope and role of each side of the planning effort.

Points to Overview

- Dam safety history
- Regulations
- Planning clarity and distinction.
- The value of an EAP
- Local government planning
- Expectations and next steps



Dam Safety History

- Teton (Idaho)
- Rio, Mongaup, Swinging Bridge
- Hadlock Pond
- Lake Delhi (Iowa)



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Regulatory Landscape

- New State Regulations (6 NYCRR 673)
 - Class C and B dams
- Existing FERC Regulations (18 CFR 12.22-25)
 - Class C and B dams
- USACE dams (EP 1110-2-13)
 - Specific to owning, operating and maintaining dams.

Impact on Local Government

- The regulations do not require local government to develop the EAP.
- Exception: publically-owned dams.
- The regulations do not require local government to develop disaster plans.
- The regulations DO require your involvement. Plan review and input.

Contents of an EAP

- Mirrored the FERC Regulations.
- Emergency notification procedures.
- Inundation maps or other acceptable description of the inundation area.
- Procedures for implementing all other aspects of the EAP.
- Procedures for updating the plan
- Other provisions DEC deems necessary.



The EAP Planning Process

- We recognize the amount of work, time and resources dam owner/operators must commit in meeting the new regulatory requirements.
- The planning process in developing, posting and exercising the EAP is extremely valuable to local government planning efforts.



Parallel Planning Efforts

Dam owner
or operator
develops
the EAP



Local
government
amends local
disaster plans



Debunking Planning Myths

- Myth #1: The EAP is the local government's disaster plan for a dam failure.
 - The EAP is NOT the jurisdiction's dam safety plan.
 - The scope of an EAP applies to activities and measures the owner/operator will take in mitigating the event and notifying off-site officials.

Debunking Planning Myths

- Myth #2: A flood plan will adequately prepare a jurisdiction for a dam failure.
 - A jurisdictional “flood” plan will NOT adequately prepare a jurisdiction for a catastrophic dam failure.
 - These are usually mitigation plans.
 - Inconsistent technical basis (risk assessment)
 - Public awareness
 - No-notice event versus forewarned events.



Using EAP Information

- Extremely valuable for local government planners.
 - Insight into dam owner/operator actions
 - Jointly preplan for events, as appropriate
 - Ensure proper off-site notifications
 - Relationship building and information sharing.
 - What the jurisdiction should plan for!



Into Existing Planning Efforts

- Comprehensive Emergency Management Plan (CEMP).
- Warrants the development of a Dam Safety Annex.
- Impact on shelter, evacuation and public warning plans, procedures, and more!



Local Emergency Planning 101

- NYS Executive Law, Article 2-B §23, authorizes local governments to develop disaster preparedness plans. The purpose of the plans is to:
 - Minimize the effects of disasters.
 - Develop coordination of local resources.
 - Provide a centralized coordination and direction of requests for assistance.
 - Utilize clear lines of authority.

Planning Structure

- Mitigation/Preparedness, Response and Recovery
- Formulates the development of a Comprehensive Emergency Management Plan (CEMP).
 - All hazards
 - Overarching
 - Basic command and control
 - Heavy on policy, strategies and identifies core missions of agencies.

The CEMP/Annex Relationship

Risk Reduction
Response
Recovery



Actions for All
Hazards



Detailed Strategies

Annex

Specific
Response
Actions



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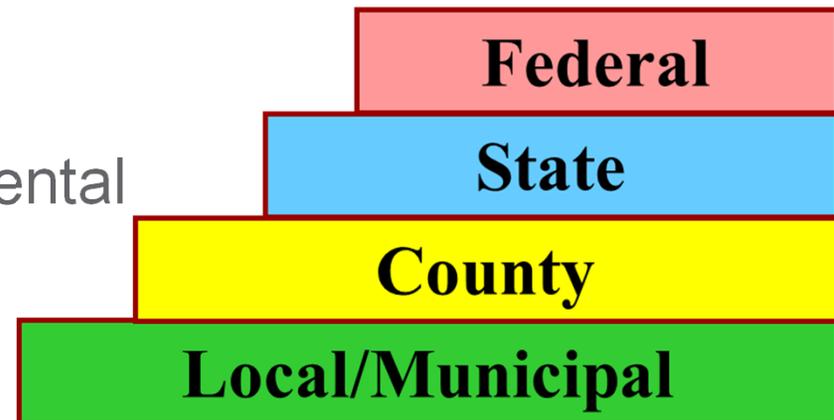
Dam Safety Annex

	CEMP	Dam Safety Annex
Incident Management	✓	Details
Alert & Notification	✓	Details
Activation	✓	←
Public Warning	✓	Details
Emergency Information	✓	←
Emergency Declaration	✓	←
Emergency Orders	✓	←
EOC Operations	✓	←
Recovery	✓	←



Planning/Response Relationship

- All emergencies begin and end locally
- Concept of Operations
- Exhaustion of resources
- Multi-agency Interoperability
- State assistance is supplemental



Points to Consider When Building Annexes...

Annexes and appendices should:

- Support the concepts and functions to address the hazard.
- Utilize the policy, authority, mechanisms and lines of authorities in the CEMP.
- Build upon the CEMP.
- NOT usurp what has been agreed to in the CEMP.
- Be done in a team approach.
- Be done utilizing a formal Planning Process.



Topical Outlines for Annexes

- Introduction
- Purpose
- Scope
- Situation / Assumptions
- Policy / Authorities
- Concept of Operations
- Preparedness
- Response
- Recovery
- Attachments

These are the
basic tenets
of an annex or
appendix



Topical Outlines for Annexes

- Introduction
 - Background on what is needed.
 - Considered the “preamble” to the document.
- Purpose
 - Why are we doing this effort?
- Scope
 - What does this document apply to?
 - What can the functions outlined in this document be applied to?



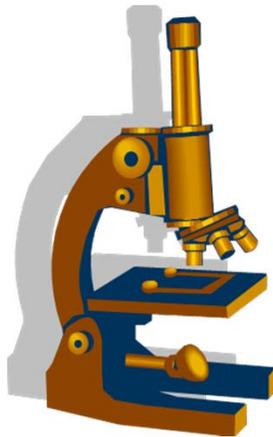
Topical Outlines for Annexes

- Situation and Assumptions
 - What are the overriding factors in developing this document?
 - What is the overarching thought or strategy that drives this document?
 - Simply stated, what can we assume in developing this document?
 - What are the impacts, needs, response capabilities, gaps, limitations?

The assumptions serve as the basis for what you need to plan for!

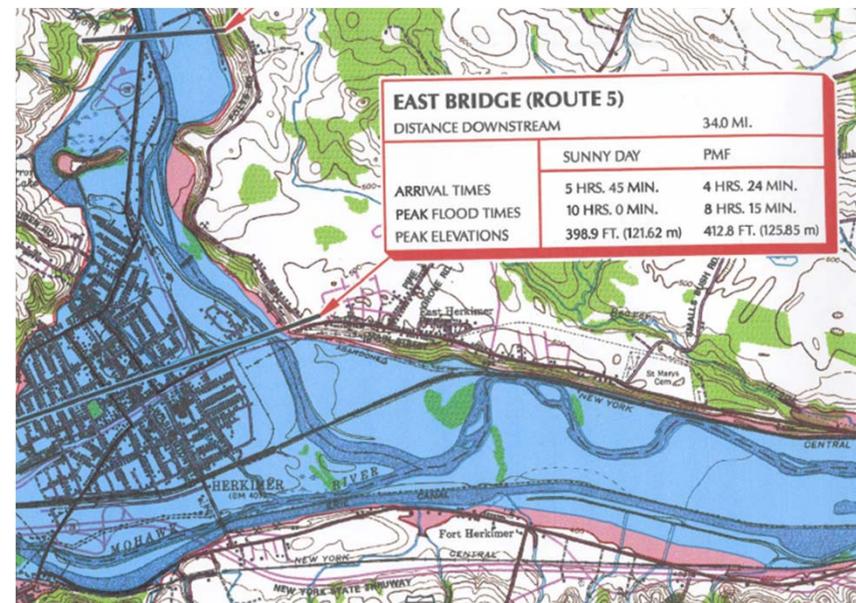
Points to Consider...

Fully analyze and evaluate the situation at hand--do your homework!



The Value of Mapping

- Distance downstream from the dam.
- Flood arrival times.
- Levels, peak levels and reference points.
- Impacts



Map Courtesy of NYPA



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Risk and Vulnerability

Inundation areas in maps identify:

- At-risk populations
- Critical infrastructure
- Shelter, reception center locations
- Agriculture, industry
- Access/egress
- Cascading hazards (i.e., chemicals)
- Public and private properties
- Cemeteries





Topical Outlines for Annexes

- Policy / authorities
 - Identify the laws, regulations that support this effort.
- Concept of Operations
 - The sequence of events from the onset.
 - The escalation of the event and the response mechanisms that could be activated along the way.
 - The height of the response, and what you expect to occur.
 - The demobilization of the response.
 - The transition into recovery.

Risk Reduction

- Planning
 - CEMP/Dam Safety Annex
 - Agency-specific planning to support the Annex.
 - Mitigation planning efforts
 - Participate in EAP development
 - COOP/COG
- Revisit existing shelter locations
- Review risk assessment from hazard mitigation efforts.
- Evacuation routes.
- Public facilities, schools, hospitals.

Risk Reduction

- Public education
 - Individual and family preparedness
- Floodplain management practices
- Revisit public warning mechanisms
 - EAS
 - Pre-canned messaging
 - Route alerting
 - NY-Alert
- Training
- Exercising



Response Trigger Points

Dam Emergency Classifications:

- Level A: Failure is imminent or has occurred.
- Level B: Potential failure situation is developing.
- Level C: Advisory condition.

EAP to Annex Trigger Points

- “On-site” conditions should serve as a catalyst to initiate off-site response activities.
- Alert, notification and activation of the local/county response organization.



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Making the Connection

- Each local CEMP possesses response levels.
- Those levels are indicative of the level of response, event severity, and the response structure being employed.
- Response levels in a Dam Safety Annex can be customized to meet the demands of the incident.

Pre-Identified Scalable Response

Level	Activity	Agency Actions
5	Routine Activity	Day-to-day monitoring.
4	Minimal Activity	Increased monitoring; select agencies and activities involved.
3	Moderate Activity	Level 4 and additional staff/actions.
2	Significant Activity	Level 3 – all staff involved; State and regional activities.
1	Extensive Activity (Catastrophic Event)	Level 2 – all staff involved; State and federal activities.



A Simplified Example

EAP Condition Level	Local EOC Activation Level	Agencies and Actions Be specific!
N/A	None	Day-to-day monitoring.
C	4	Increased monitoring. Agency “heads-up” messaging. OEM dialogue with operator.
B	3	Continued monitoring; EOC activation, select agencies, external notifications, stand-by posture, contingency plan.
A	2	All agencies, full activation and mobilization, public warning, multiple agency roles and responsibilities, implement PADs, shelter, etc.
A	1	State and Federal involvement.

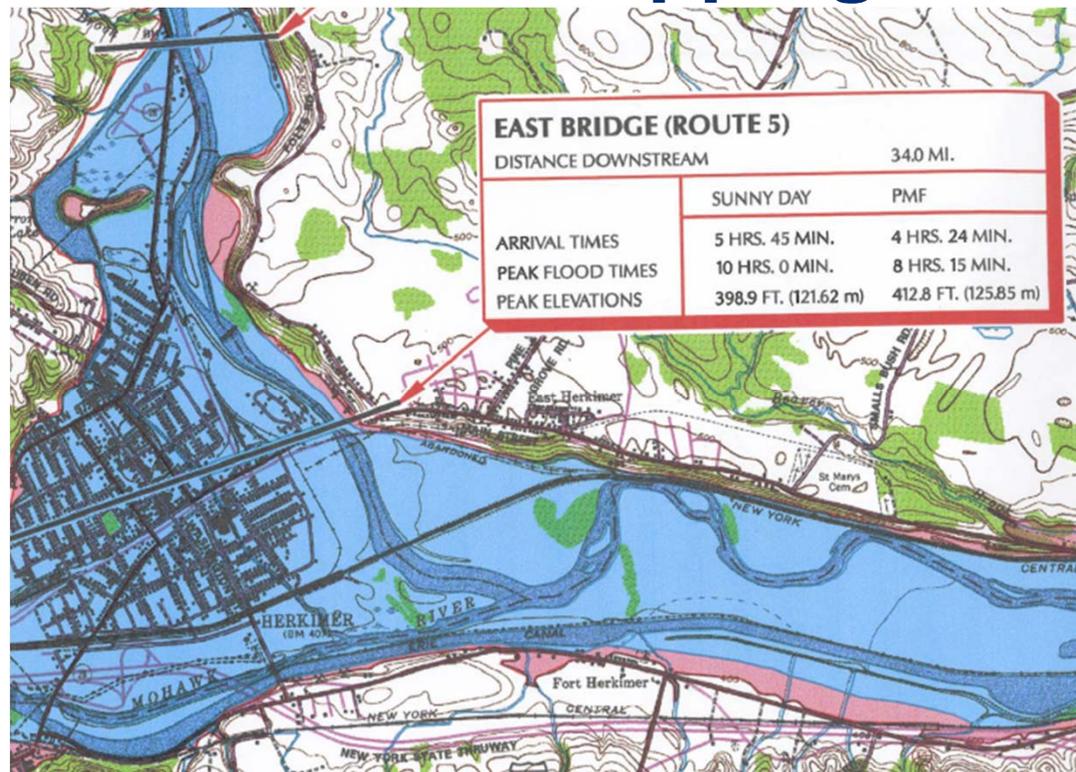


Planning Nodes

- Tied to “on-site” conditions.
- Scalable, flexible.
- Be specific
- What agency, when, where.
- Back up with procedures.



Again...the Value of Mapping



Map Courtesy of NYPA



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Response Operations

- Notification protocols.
- Warning and Emergency Information.
- Evacuation, access, egress, rescue.
- Human needs, sheltering, pets.
- Security, protection, enforcement.
- Debris, contamination, disease.
- Impacts on infrastructure.
- Fatality management.
- Multi-agency coordination.



Short-Term Recovery

- Recovery areas in the CEMP versus an Annex
 - CEMP contents of IA, PA, PDAs.
 - Narrow the scope of the CEMP.
 - Identify hazard-specific concerns.
 - Demobilization of the response organization.
- Short-Term Issues
 - Vital and basic human needs.
 - Security, public health, liability, indemnity.
 - Family reunification; repatriation
 - Emergency work and protective measures.
 - Turnover (transfer) to other authority/entity.
 - Social and economic concerns.



Long-Term Recovery

Long-Term Issues:

- Regulatory relief, reform.
- Acquisitions, buy-outs, augmentation.
- Mitigation into the rebuilding process.
- After action reports.
- Implementing corrective actions.

Supporting Documents

Attachments:

- Resource lists, supportive data.
- Maps, risk areas, assessment information.
- Regulatory citations, state / local laws.
- Fact sheets, cheat sheets.

Other Catch Points

- This event requires quick initiation of pre-planned activities.
- NWS messaging.
- Redundant and tailored public warning (phased).
- Public perception, complacency.
- Worst-case scenario
 - SDF
 - PMF

Local Government Role

- Provide input/comment into the EAP.
- Ensure notifications are consistent.
 - Do NOT take on added notification responsibilities (liability).
- Read the EAP.
 - Ensure the “role” for the jurisdiction is correctly identified in the EAP.
- Participate in the exercises.
- Train, educate.
- Prepare and Plan!

For Owner/Operators

- State assistance is supplemental.
- Directly contact the State Watch Center on ALL classified events.
- Roles/responsibilities in EAP are for the operator.
 - Local/State roles should only contain mission statements.
- Send copies of EAPs to SEMO regional office and HQ.

Questions?

Thank you!!



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