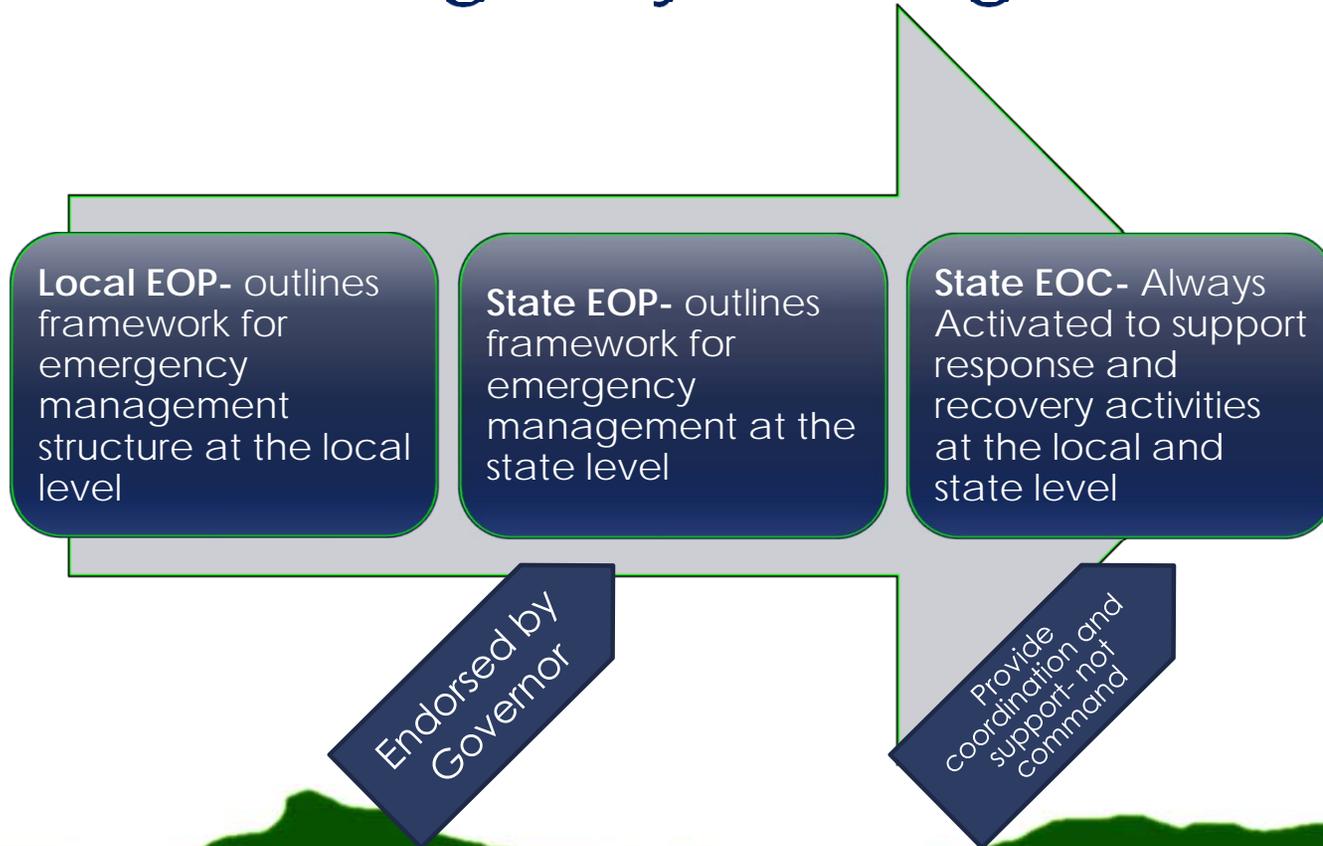


Emergency Planning & Hazard Mitigation

An Overview For The
Water & Wastewater Systems Sector



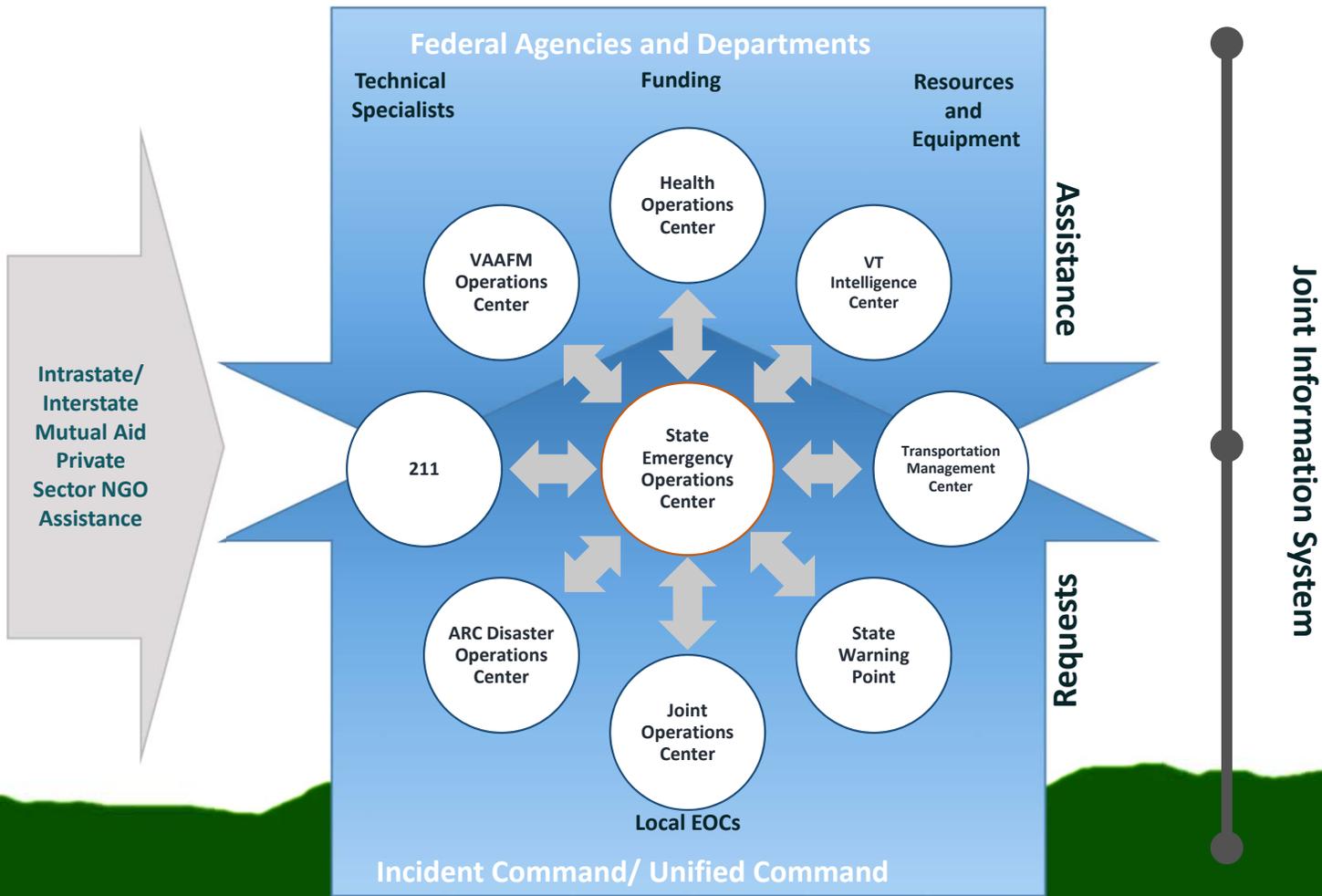
State Emergency Management

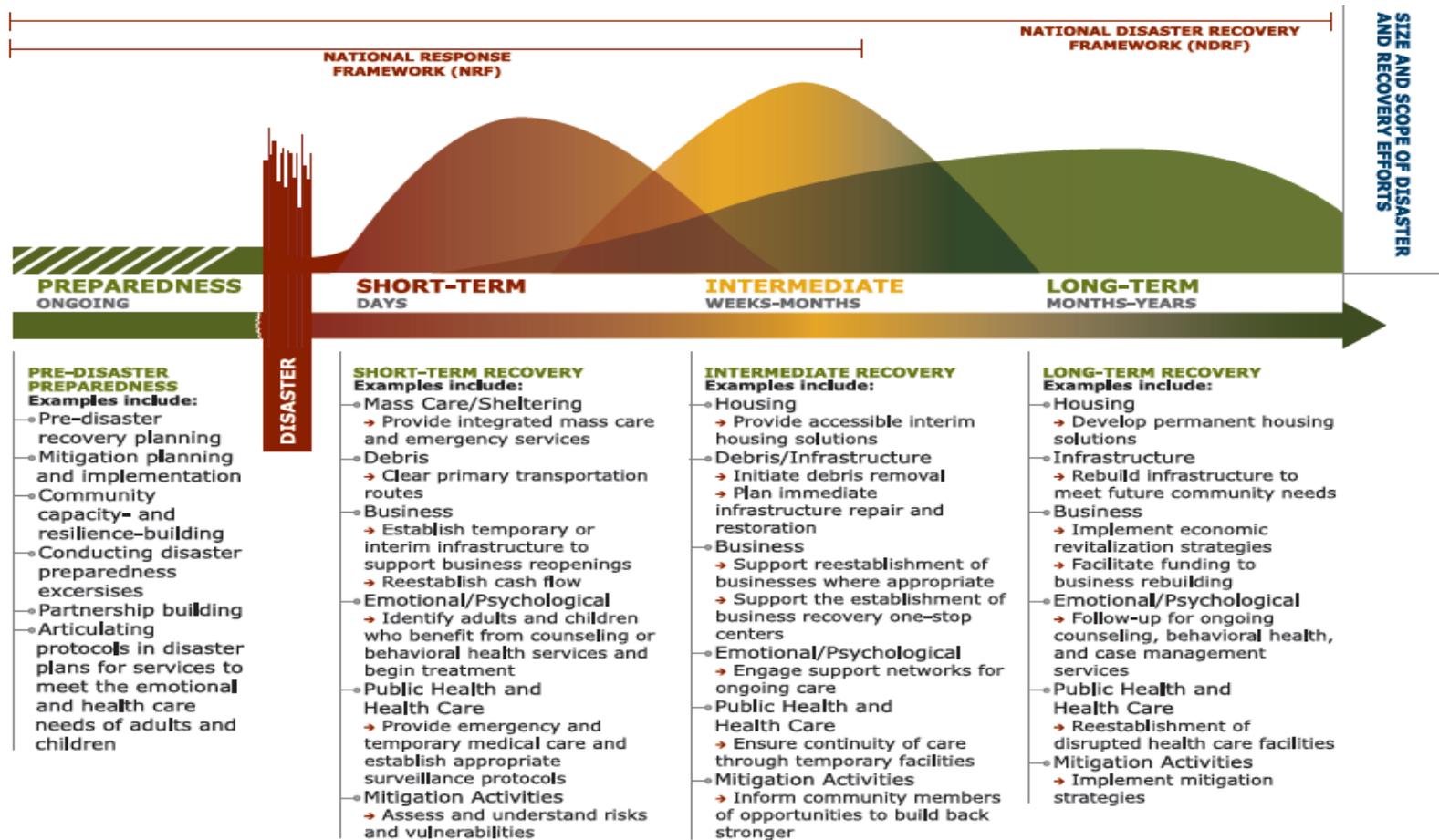


State Emergency Management

- SSF 1 – Transportation (AOT)
- SSF 2 – Communications (DII & DPS)
- **SSF 3 – Public Works & Engineering** (ANR-DEC)
- SSF 4 – Firefighting (FPR & DFS)
- SSF 5 – Emergency Management, Recovery & Mitigation (DEMHS)
- SSF 6 – Mass Care, Housing, Emergency Assistance & Human Services
- SSF 7 – Resource Support (AHS)
(BGS & SerVermont)
(VDH)
- SSF 8 – Health & Medical Services (DPS)
- SSF 9 – Search & Rescue (DFS)
- SSF 10 – Hazardous Materials (AG & ANR)
- SSF 11 – Agriculture & Natural Resources (PSD)
- SSF 12 – Energy (VSP)
- SSF 13 – Law Enforcement (DEMHS)
- SSF 14 – Public Information
- Military Support







INCIDENT COMMAND POSTS VS. EMERGENCY OPERATIONS CENTERS

INCIDENT COMMAND POST

- On scene
- Command and control
- Real-time tactical response



EMERGENCY OPERATIONS CENTER

- Coordinate and support incident
- Planning 48-72 hour ahead
- Consolidated information



SEOC ACTIVATION LEVELS

- Monitoring

- Partial Activation

- Full Activation

LEVEL	DEFINITION
Monitoring	The DEMHS Watch Officer (WO) receives and acts upon calls from the public and/or other branches of state government or local agencies notifying the State of emergent situations such as flooding, ice storms, hazardous materials incidents, etc. Monitoring may include the activation of a Supervisory WO and/or additional DPS staff (this may be accomplished "virtually" by use of the state disaster management software)
Partial Activation (Additional Support Staff, and some SSFs)	When the situations outlined below are encountered, operations may shift to Partial Activation: <ul style="list-style-type: none"> • With multiple or simultaneous events/incidents • When events/incidents anticipated to require protracted coordination or response within multiple functional disciplines by the State • When events/incidents affect large geographic areas • Upon declaration of an ALERT at the Vermont Yankee Power Plant • When local officials activate an incident command post • When another state agency activates an operations center • When state special teams are deployed
Full Activation (Additional Support Staff, All SSFs and Federal representation)	The State will activate the SEOC at either the primary site in Waterbury or a secondary location shifting to Full Activation when: <ul style="list-style-type: none"> • More than two (2) operational periods are anticipated • There is an escalation of event(s) • Significant State resources are activated and deployed • There is a need for resources outside the affected area(s) • Directed by the Governor, Commissioner of Public Safety or Director of DEMHS • Preliminary damage assessments (PDAs) may lead to a Governor's request for a Presidential declaration • The incident exceeds the capability of the Incident Coordination Team (ICT) to coordinate resources during a Major or Catastrophic incident • Warning or anticipation of WMD or Terrorism incident • Federal representation is likely

SEOC ACTIVATION



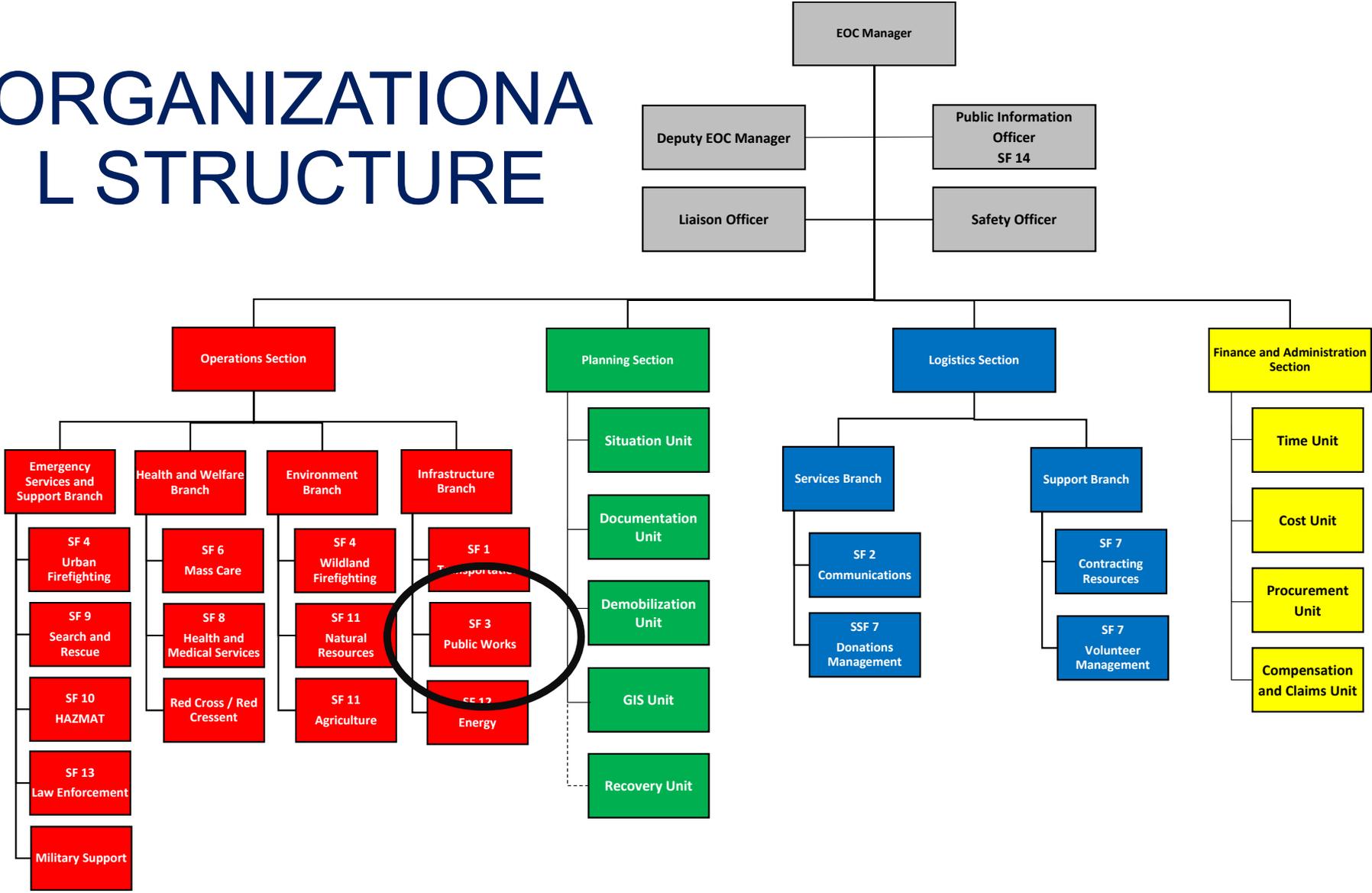
- **No-notice events (via VT Alert)**
 - Require immediate support
 - Quickly escalate beyond the local and/or regional ability to handle
 - Notifications to appropriate state agencies
 - Frequent situational updates to State leadership
 - Main priorities = life safety and property preservation
- **Notice and planned activations**
 - Forecasted (weather) or planned events. Also includes impacts that could have the potential to activate the SEOC
 - Activation times communicated through VT Alert, email or conference call
- **Other pre-event activities**
 - Situational briefings with state agencies and Emergency Management Directors (EMDs)

Personnel Representing State Agencies In The SEOC

- Decision-making authority on behalf of their agency
- Understanding of agency capability, responsibilities and plans
- “Depth on the Bench” for personnel
- Pertinent SEOC training
- Previous SEOC experience
- Understanding of State Emergency Operations Plan (SEOP)



ORGANIZATIONAL STRUCTURE



RECOVERY ORGANIZATIONAL OVERVIEW

Recovery Support Functions provide support throughout the recovery phase.

- **Individual and Family Needs** (AHS)
- **Housing** (ACCD)
- **Infrastructure and Environmental Restoration (AOT and ANR-DEC)** (AOT and ANR-DEC)
- **Economic and Community Development** (ACCD)
- **Health and Medical Services** (VDH)
- **Debris Management** (ANR)
- **Historical and Cultural Restoration** (ACCD)
- **Agricultural Restoration** (VAAFAM)
- **Volunteer and Donations Management** (BGS, VDRF, and SerVermont)

Hazard Mitigation

....huh?



Hazard Mitigation is:

Any sustained action taken to reduce or eliminate long-term risk to people and property due to natural or man-made disasters

...essentially, the **best long-term fix to a problem.**





Project Types



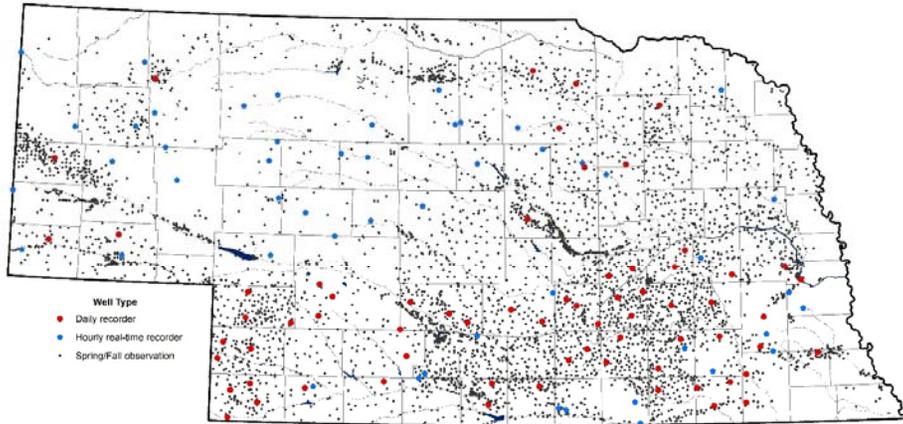
Vulnerability	Hazard	Solution
House	Landslide	Remove or Relocate
Culvert	Flood	Upsize
Road	Fluvial Erosion	Relocate

Water/Wastewater Sector Mitigation

- Identify location of all groundwater resources in your village/town/region/state (Drought)
- Develop and implement stormwater management plan
- Flood barriers, where applicable
- Floodplain restoration and site stabilization via *native* vegetation
- Adherence to Required Agricultural Practices (RAPs) – Water Quality Bill



Location of Observation Wells by Type



CONSERVATION AND SURVEY DIVISION, (<http://ncrsd.educr.edu/csd>)
 School of Natural Resources (<http://snr.unl.edu/>)
 Institute of Agriculture and Natural Resources
 University of Nebraska-Lincoln
 Aaron Young, Survey Geologist, CSD
 Mark Puthach, Water Levels Program Supervisor, CSD
 Les Howard, GIS Manager, CSD
 Michele Wozniak, Research Technician, CSD

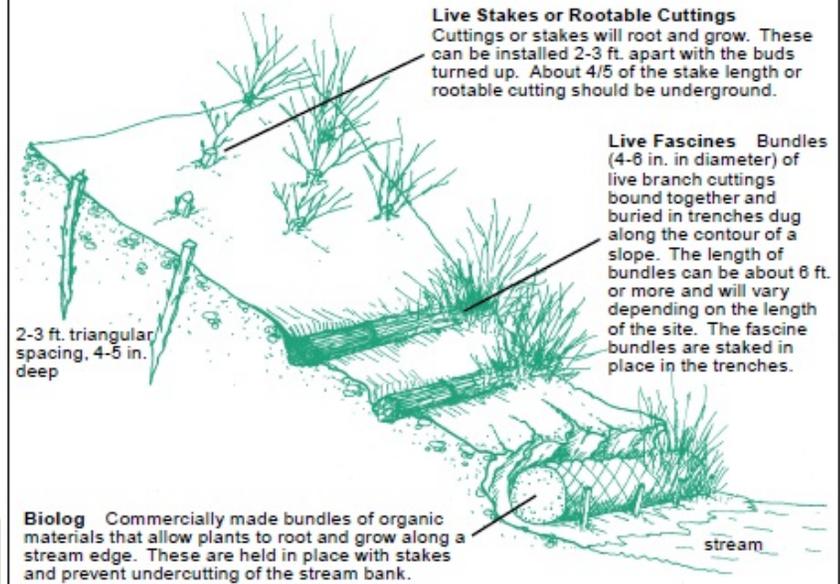
U.S. Geological Survey
 Nebraska Water Science Center
 U.S. Bureau of Reclamation
 Kansas-Nebraska Area Office
 Nebraska Natural Resources Districts
 Central Nebraska Public Power and Irrigation Districts

December 2016

N CONSERVATION AND SURVEY DIVISION
 School of Natural Resources
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Streambank Stabilization Techniques

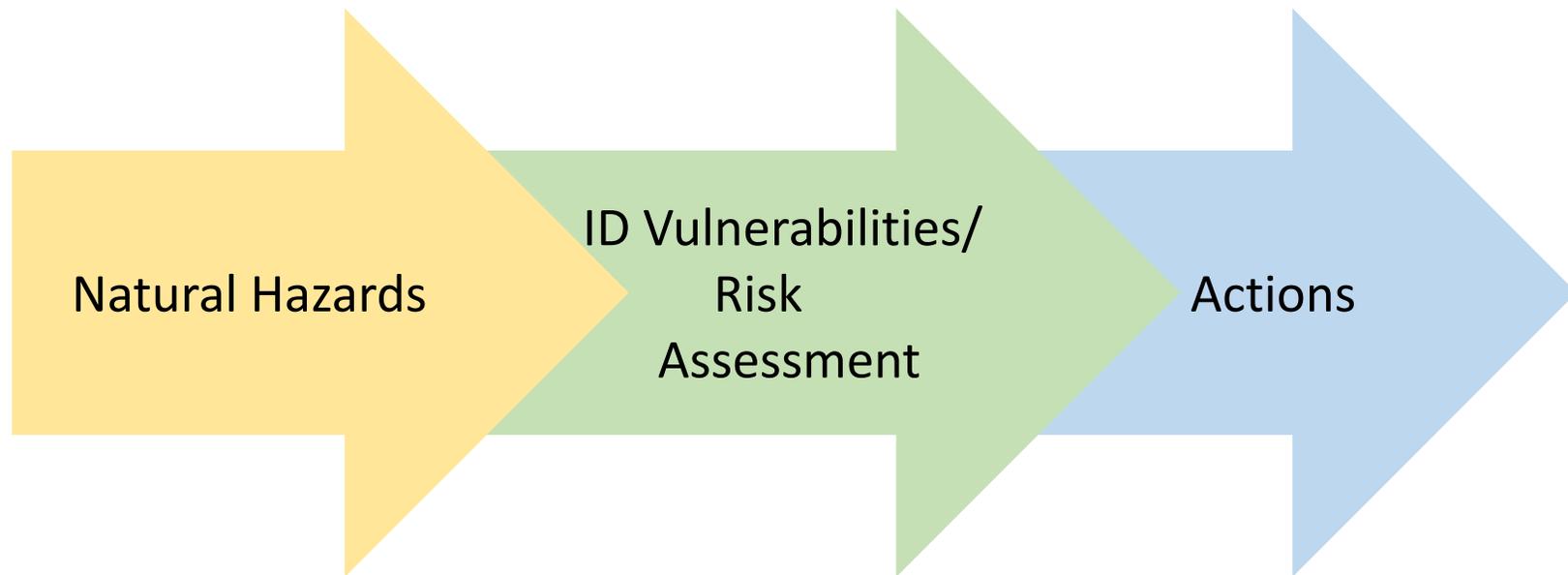


Funding

- There are two streams of funding:
 - Disaster (Hazard Mitigation Grant Program) – no funding currently available
 - Non-Disaster (Pre-Disaster Mitigation Grant Program) – **applications due October 2017!** *only municipalities and states can apply
- Applications are processed through VEM, then FEMA



Hazard Mitigation Plan



Questions?

