City of San Diego
Public Utilities Department

Dam Emergency Action Planning
Public Utilities Department

- Water and Wastewater Facilities
  - 2.5 million customers, 170 mgd
- 1700 Employees
- 6000 Miles of Pipelines
- 150 Pump Stations
- 7 Treatment Plants
- 29 Standpipes & Reservoirs
- 9 Extremely High Hazard Dams & Surface Impound Reservoirs
- 3 High Hazard Dams/Reservoirs

Sutherland Dam

Lake Hodges Dam
Emergency Action Plans

- July 1, 2017 - New State Legislation
- December 2017 - Submitted Existing EAPs/Maps
- 2018 - Updated Maps per FEMA 946 and new State requirements
- 2019 - Updated EAPs per FEMA 64
- August 2019 - All PUD Extreme High Haz Class EAPs submitted
  - Hodges approved June 20th
  - Murray approved August 27th
  - 7 others pending review.
Inundation Map

Challenges

- Getting contracts established
- Qualified consulting firms all busy
  - Used two consulting firms
- Time - field studies and run models
- Create maps for dam and appurtenant structures
- Establishing the right team members
  - Multi-discipline
- Consistent map formatting:
  - Map sizes
  - Color palate
  - Fonts
- Criteria – usable in an emergency
Emergency Action Plan

Challenges

- Minimal baseline - starting from scratch
- Evolving regulatory environment and guidance documents
- Flowcharts – EAP vs ERP
- Shear size and number of documents
- Identifying ALL of our stakeholders
- Now included reservoirs
- Diverse locations and types of dams
- Bi-National relations
Emergency Action Planning

Positive Aspects - Successes

- Developed new and stronger relations with County/Cal OES and DSOD
- Connecting with Emergency Managers and first responders
- Partnering across the industry here in SD
- Vastly improved inundation maps and EAPs
- Public outreach and education
- Better prepared community
What’s in store for future?

- All inundation maps submitted to DSOD and approved
- All Extremely High Hazard class EAPS submitted to Cal OES
- 2 of 9 EAPs approved
- Approval of all Extremely High Hazard class dam EAPS

- Revise and resubmit 3 High Hazard dam EAPS and get them approved
- Continue planning with stakeholder emergency managers
- Focus on the public outreach and community education

El Capitan Dam
Construction 1933

Dedication 1935

Present day
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