British Columbia’s Approach to Post Disaster Building Assessments

Steven Bibby
Director, Security and Emergency Services
sbibby@bchousing.org
POST-DISASTER DAMAGE AND SAFETY ASSESSMENT OF THE BUILT ENVIRONMENT PROJECT

CSSP-2016-CP-2268

Funded by:
PDBA as a “System of Systems”
Components:

- Recruitment & Training
- Pre/Post Event
- Strategies
- Other Assessments
- Legislative Framework
- Information
- Management
- Administration
- Assessment
- Procedures
- Outcomes
Post Disaster Building Assessment

Building Safety Indicators
- Applied Technology Council (ATC)
- Earthquake Engineering Research Institute
- Engineers & Geoscientists BC
- Emerging Technology (e.g. PPR)

Governance and Administration
- Pre-Disaster Planning
- Program Direction
- Training & Certification
- Personnel Deployment
- Data Collection
- Situational Awareness
- Support & Mutual Aid
- Building Typology

Program Management and Habitability
- Authority to Enter
- Placard Authority & Change/Removal
- Team Assignment & Integration
- Habitability Standards
- Habitability Milestones
- Information Management
- Building Prioritization & Assessment Type
Governance and Administration

- **BC Housing**
  - Establish and lead the Building Damage Assessment Branch at the PECC/PERRC. Manage Registry & Co-Chair Committee.

- **BC Post-Disaster Building Assessment Advisory Committee**
  - Advise, Recommend, Implement, Promote, Integrate

- **Working Groups**
  - Governance
  - Forms & Placards
  - Curriculum & Training
Adapting to Changing Goals
Personnel & Deployment

- Police and Fire
- Building Officials
- Engineers
- Architects
- Housing Inspectors
- Emergency Coordinators
- Facility Managers
- Construction Trades
Other Provinces

- Alberta Emergency Management Agency
- Manitoba Emergency Management Organization
- Sûreté publique Québec

+ Other Provincial and Territorial emergency management organizations (EMOs)

Emergency Management BC

- Provincially organized in 6 Regions
- Headquartered in Victoria
- In the event of an emergency, EMBC would receive request from local authority for EMBC task number (cost capture, liability, and insurance, event tracking)
- May start preplanning and warning key stakeholders
- Coordination of damage assessment executed at provincial, regional and/or municipal level

- Provincial Emergency Operations Centre (PEOC) already determined by EMBC
- Regional Provincial Regional Emergency Operation Centre (PREOC) determined by EMBC
- Municipal Emergency Operations Centre (EOC), determined at the local authority

*Damage Assessment Coordination Centres will be on-site of the EOC. EOCs may have a primary or secondary location. Location may change.*

Federal Organizations

- Department of National Defence (search-and-rescue (SAR))
- Public Safety Canada, etc.
- Organizations that can help with damage assessment

Public Safety Canada

- Public Safety.gc.ca

South East Region (PREOC)

- Damage assessment activities will likely begin with local authorities. In some cases, they may have mutual aid agreement in place with neighboring Local Authorities. Once local authorities' capacity is exceeded, they will reach out to their PREOCs for additional assistance. The PREOC will vet the request and determine if it is necessary to task BC Housing to assist.
Information Management & Common Operating Picture

**DATA REPOSITORY**

- Multiuser, Editable, Central Spatial Database

**FIELD STAFF**

- Data Creators
- Damage Assessment App/Form
- ESRI Collector

**GIS STAFF**

- App, Map, Dashboard Creation/Maintenance,
  Damage Assessment Coordination

**DECISION MAKERS**

- Users of Data
- Dynamic/Interactive Web Map and Dashboards on Desktop
  for Clients/Decision Makers
Ongoing Challenges

- Ownership of PDBA processes
- Summarized building typology
- Typology and credential matching
- Reflecting PDBA/EM transition from response to recovery
- Placard modification, change, removal
- Clarity of civil liability protection

• Personnel
  - Types of personnel involved in PDBA
  - Desired credentials or certification
  - Use of non-credentialed personnel in PDBA
  - Recruitment of personnel for PDBA
  - Prior training
  - Just-in-time training and/or preparation for PDBA
  - Liability for personnel involved in PDBA

• BDSA Operations
  - Overall management of PDBA
  - Decision-making and priority determination
  - Logistics and dispatching of PDBA teams
  - Data collection
  - Data reporting
  - Data management
  - Use of data in subsequent decision-making
  - Use of technology in data management
  - Team size and composition
Unique or Ground Breaking?

- Credentialed and non-credentialed personnel
- Defined ICS processes for deployment, team selection, and allocation
- Links academic requirements, habitability and building typologies in a Canadian context
- First ever in Canada:
  - Provincial Registry of Assessors
  - Provincial Advisory Committee
Questions?

Steven Bibby
Director, Security & Emergency Services
sbibby@bchousing.org
www.bchousing.org