I. May 21, 2015 Minutes

Motion (Shea): Approve as presented. Second by Boehlert. Passed unanimously.

II. Presentation of Proposed Bylaw Changes

Sullivan presented information on a few minor bylaw amendments. There being no objections, the bylaw changes will be put on the agenda for a vote at the BCRC's September meeting.

III. Public Hearing - Arlington, Bennington, Dorset, and Woodford Town Plans

BCRC staff has reviewed the plans for these four towns and found them to be in conformance with statutory requirements. General comments and discussion of the plans. Ballots were accepted and counted - each of the plans were approved (unanimous) and the towns confirmed pursuant to 24 VSA Section 4350.
IV. Mobile Home Parks and Emergency Preparedness

Sarah Woodward, Champlain Valley Office of Economic Opportunity/Mobile Home Project and Kelly Hamshaw, UVM Department of Community Development and Applied Economics presented information about emergency planning and mobile home parks (see attached presentation).

Noted there are significant flood-related vulnerabilities with Bennington Region mobile home parks. Also, Vermont has a lot of older mobile homes (pre MH building standards developed in 1976) that are particularly susceptible to damage. Infrastructure issues also can present significant challenges. Poor insulation/air sealing results in high heating costs and/or residents being cold and needing to go to shelters during cold periods in the winter. About 1/3 of Vermont MHs are located in parks.

Significant socio-economic vulnerabilities, too. Potential for widespread residential displacement, high costs for many residents who are on fixed incomes, many residents are elderly or have serious health issues or disabilities.

High level of homeownership in MH parks. Average age of mobile homes in VT = 24 years. Many residents don't know if the home is adequately tied down or anchored to its lot. Fuel spills and inadequate anchoring of fuel tanks another issue in many places.

Tropical Storm Irene: MHs comprise 7% of the state's housing stock, but sustained 15% of the damage to residences.

GIS used to map building locations relative to flood hazard areas. About 1/3 of MH parks are located at least partially in flood hazard areas. Largest percentage of housing types in flood hazard areas are MHs in parks.

Bennington Region: Concentration of MH parks located in Bennington and Pownal (25 total parks in county). Ten parks in region located at least partially in flood hazard areas (8 of those have MHs in flood hazard areas). Alta Gardens and Green Mountain in Pownal have most significant potential flood damage. (Walt Klinger noted there also is a significant hazard to those parks based on proximity to freight rail traffic and potential spills.) Also discussed Royal Pines (Pownal), Burdick & Burdick (Pownal), Mears (Arlington), Willows (Bennington), Smiths (Woodford), Dorr (Manchester), Cozy Meadow (Pownal)

Discussed relocation possibilities and also the problem that established village centers, where we generally want to concentrate development, are often located along rivers and streams where there are significant flood hazards.

Mobile home park maps and data available for use in town and regional planning.

Meeting adjourned at 7:35 PM.

Respectfully submitted,

James Sullivan
Emergency Planning & Mobile Home Parks

LEPC #7
Bennington County Regional Commission
July 16, 2015
Presented by
Sarah Woodward, CVOEO
Kelly Hamshaw, MS  University of Vermont

Funded by Vermont Community Foundation & US EPA
Introductions

• CVOEO Mobile Home Program
  • Resident organizing
  • Leadership development
  • Policy guidance and planning

• UVM Department of Community Development & Applied Economics
  • Research and outreach
    • Disaster resilience
    • MH deconstruction
    • Weatherization and Energy efficiency for MHs

We work together to raise public awareness of opportunities to create more resilient communities through collaborative research and partnership development throughout Vermont with many partners, including:
  • LEPC’s
  • Vermont State Agencies & Municipal governments
  • Park residents
  • Non-profits
Why do we care about emergency planning for mobile home parks?

What have we done with parks in the past

What we know about your parks in BCRC/LEPCs #7

Table of park info and past history

Map of parks in the BCRC/LEPC #7 region

Selected maps of parks with known issues

The Charge: We want to involve LEPC folks in identifying folks in parks who might be interested and build from our past experiences to include fire chiefs, emergency managers, etc.
Now starting two 1-year projects to expand and extend what we learned in the 3 year grant.

Better integration is a primary objective
Park Hazards & Vulnerabilities

- Socio-economic
- Social Capital
- Physical

Photo Credit: Kelly Hamshaw
Physical Conditions & Issues

• Park sited in higher risk areas
  • Flooding, wildfire

• Park layout
  • Fire (dense housing, difficulty of access)
  • Location of infrastructure

• Park Maintenance
  • Hazardous tree trimming
  • Road & water systems

• Age/condition of structures
  • Wind damage
  • Insufficient insulation
  • Inadequate site prep & anchoring

• Hazardous Waste & Spills

Photo Credits: Bing Maps, Hamshaw & Baker
**Socio-Economic Vulnerabilities**

- Potential for whole communities to be displaced
- Limited economic resources
  - Low/fixed income
  - Lack of affordable housing alternatives
  - High energy costs
- High percentage of elderly & people with health condition or disability
- Limited community organization, planning & social capital
- Misconceptions
  - Diversity of MHP Communities
  - Working families

<table>
<thead>
<tr>
<th>Vermont’s Mobile Home Park Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Household Size</td>
</tr>
<tr>
<td>Average Age of Respondent</td>
</tr>
<tr>
<td>Median Highest Household Education Level</td>
</tr>
</tbody>
</table>

- 26% of households had at least one child **under the age of 18**
- 37% of households had at least one person **over the age of 65**
- 41.2% of households reported at least person with a **health condition or disability** that would be a concern in an emergency situation
- 14% would be considered to be “**extremely low income**” according to HUD Area Median Income guidelines

Source: UVM-CDAE Survey 2011
Aging Mobile Homes: Vermont Mobile Home Park Housing Characteristics

- High levels of home ownership
  - 87% of residents own their homes (n=361)

- Many older homes
  - 1/5 are pre-1976 (n=306)
    - Pre-HUD Code
      - Inadequate insulation
      - More vulnerable to high winds

- Average VT MH home age: 24 years

- Less than a third reported knowing that their home was tied down or anchored to its lot (30.4%)

Source: Baker, Hamshaw and Hamshaw, 2014
Fuel Tank Anchoring

Fuel spills are hazard for any park

Best practice: Anchor, cover, and elevate (if in flood zone)

ANR Grant Program

$2000 Fuel Tank Replacement Grants

Is your oil tank getting old, or has a fuel company refused to deliver to your tank? Grants of up to $2000 are available to help you replace your tank. Under 2011 Agency of Natural Resources (ANR) rules, fuel companies must inspect your tank and cannot deliver to you if the tank could leak or spill. In addition, new storage tanks must have a concrete pad and a protective roof. ANR has grants to help you if the cost of upgrading your tank is too high. For more information, call Maria Stadlmayer at 802-241-3881 or e-mail Maria.Stadlmayer@state.vt.us.

Image Source: FEMA.
Tropical Storm Irene highlighted the vulnerability of parks in Vermont

- Nearly 1/3 (31.5%) of all VT mobile homes are in parks
- 244 registered parks
  - 7,149 lots
  - 22% are owned by non-profits
  - 6 cooperatives
- Flooded Parks: 17
- Parks with homes destroyed: 14
- Flooded Mobile Homes in Parks (includes destroyed): 226
- Destroyed Mobile Homes in Parks: 133
- Mobile homes are 7% of the state’s housing yet sustained 15% of damaged to residences

Map Source: Baker, Hamshaw & Hamshaw, 2012
E911 has widespread adoption across US—all but 3 states having more than 80% of their counties E911 capable

This analysis made possible through Vermont’s decision to geolocate addresses and determine home type
Findings from the Flood Hazard Assessment

### MOBILE HOME PARKS WITH HOMES IN FLOODPLAINS

<table>
<thead>
<tr>
<th>Flood Hazard</th>
<th>Number of Mobile Home Parks</th>
<th>% of Mobile Home Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOODWAY</td>
<td>15</td>
<td>6.1%</td>
</tr>
<tr>
<td>100 YEAR FLOOD or within DEC Stream Setback</td>
<td>30</td>
<td>12%</td>
</tr>
<tr>
<td>500 YEAR FLOOD</td>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>NONE</td>
<td>197</td>
<td>79.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>247</td>
<td>100%</td>
</tr>
</tbody>
</table>

### FLOOD RISK OF MOBILE HOMES LOCATED IN PARKS

<table>
<thead>
<tr>
<th>Flood Hazard</th>
<th>Number of Mobile Homes Located in Parks</th>
<th>% of all Mobile Homes Located in Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOODWAY</td>
<td>140</td>
<td>2%</td>
</tr>
<tr>
<td>100 YEAR FLOOD or within DEC Stream Setback</td>
<td>562</td>
<td>8%</td>
</tr>
<tr>
<td>500 YEAR FLOOD</td>
<td>125</td>
<td>2%</td>
</tr>
<tr>
<td>NONE</td>
<td>6,278</td>
<td>88%</td>
</tr>
<tr>
<td>Total</td>
<td>7,105</td>
<td>100%</td>
</tr>
</tbody>
</table>

- 20.2% of mobile home parks have at least one lot located in a flood hazard area
- 31.9% of parks have portion of property in floodplain

11.7% of all mobile home lots in parks are located in a flood hazard area

Source: Baker, Hamshaw & Hamshaw, 2014
Disproportionate Risk Exposure of Mobile Homes in Parks

Percentage of Housing Type Located in a Flood Hazard Area

- Mobile Homes Located in Parks: 11.7%
- Mobile Homes on Private Land: 6.3%
- Single Family Homes: 4%
BCRC (LEPC #7) Regional Park Map
BCRC Parks Table

- 25 Mobile home parks in Bennington Cty.
- 8 parks with **homes** in a flood hazard area
- 10 parks with **land** in a flood hazard area
- Tropical Storm Irene damage in Green Mountain Park

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Town</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mears</td>
<td>Arlington</td>
</tr>
<tr>
<td>100 Mountain View Rd</td>
<td>Bennington</td>
</tr>
<tr>
<td>Catamount MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>East Mountain MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>Gore Road MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>Mountain View Court</td>
<td>Bennington</td>
</tr>
<tr>
<td>Smith’s Way</td>
<td>Bennington</td>
</tr>
<tr>
<td>Sunset Farm MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>Sweet’s MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>West Road MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>White Birches MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>Willows MHP</td>
<td>Bennington</td>
</tr>
<tr>
<td>Dorr MHP</td>
<td>Manchester</td>
</tr>
<tr>
<td>Manchester MHP</td>
<td>Manchester</td>
</tr>
<tr>
<td>Squires MHP</td>
<td>Manchester</td>
</tr>
<tr>
<td>Alta Garden Estates MHP</td>
<td>Pownal</td>
</tr>
<tr>
<td>Barbers Pond Trailer Park</td>
<td>Pownal</td>
</tr>
<tr>
<td>Burdick &amp; Burdick Trailer Pk.</td>
<td>Pownal</td>
</tr>
<tr>
<td>Cozy Meadow</td>
<td>Pownal</td>
</tr>
<tr>
<td>Evergreen MHP</td>
<td>Pownal</td>
</tr>
<tr>
<td>Green Mountain MHP</td>
<td>Pownal</td>
</tr>
<tr>
<td>Hillside MHP</td>
<td>Pownal</td>
</tr>
<tr>
<td>Royal Pine Villa MH Court</td>
<td>Pownal</td>
</tr>
<tr>
<td>Harrington MHP</td>
<td>Shaftsbury</td>
</tr>
<tr>
<td>Smith’s MHP</td>
<td>Woodford</td>
</tr>
</tbody>
</table>
Alta Gardens & Green Mountain, Pownal

56 and 42 unit parks

Highest flood hazard risk to homes: 100 year flood zone
Royal Pine Villa, Pownal

63 unit park

25 lots in 100 year flood zone
Burdick & Burdick, Pownal

16 unit park

All units in 100 or 500 year flood zone
Mears, Arlington

- 5 lots
- In 100 year flood plain
- Adjacent to railroad tracks
Willow’s, Bennington

24 lots

In 500 year flood plain

Adjacent to railroad tracks
Smith’s, Woodford

16 lots

No direct hazard.

Proximity to 100 year flood.
Dorr Mobile Home Park, Manchester

35 lots

Adjacent to railroad tracks
Cozy Meadow, Pownal

43 lots

1 lot in 100 year flood plain
Our Approach to Park Planning: Vermont

- Data collection and dissemination
- Capacity Building
- Development of park specific emergency management plans
- Integration with town, regional and state planning processes

Photo Credit: Kelly Hamshaw
Vermont MHP Community Data

- Individual Park Profiles including maps
  - Link to Park Profile

Vermont Mobile Home Park Community Data

Resources for exploring data and maps to support Mobile Home Park Emergency Preparedness

**PARK SPECIFIC INFORMATION**
- Obtain information on an individual park including maps
  - Park Profile
  - Detailed Park Map
  - Park Workbook Map

**VERMONT MOBILE HOME PARK DATA**
- Search data about Mobile Home Parks in Vermont including hazard information and perform custom queries.
  - View MHP Data by Town/County/LEPC/RPC
  - Custom MHP Data Query

**STATEWIDE MOBILE HOME PARK DATA**
- View statewide mobile home parks and hazard information.

**Park Profile of Berlin Mobile Home Park**

**Basic Park Information**

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Town</th>
<th>Park ID</th>
<th>County</th>
<th>LEPC</th>
<th>RPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berlin Mobile Home Park</td>
<td>Berlin</td>
<td>154</td>
<td>Washington</td>
<td>LEPC 5</td>
<td>Central Vermont RPC</td>
</tr>
</tbody>
</table>

**Detailed Park Information**

Source: FEMA, Vermont Agency of Natural Resources

<table>
<thead>
<tr>
<th>Park Address</th>
<th>Town</th>
<th>Year Established</th>
<th>Year Purchased</th>
<th>Park Type</th>
<th>Owner</th>
<th>Owner Address</th>
<th>Owner Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Drive, Berlin</td>
<td>Berlin</td>
<td>1965</td>
<td>1984</td>
<td>For profit</td>
<td>R and G Properties Inc</td>
<td>149 Partridge Rd, Barre, VT 05641</td>
<td>802-223-6571</td>
</tr>
</tbody>
</table>

**Lot Information**

<table>
<thead>
<tr>
<th>Total Lots</th>
<th>Leased Lots</th>
<th>Vacant Lots</th>
<th>Owner Owned Lots</th>
<th>Leaseholder Owned Lots</th>
<th>Other Owned Lots</th>
<th>Total Lot Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>28</td>
<td>2</td>
<td>0</td>
<td>27</td>
<td>1</td>
<td>$380.00</td>
</tr>
</tbody>
</table>

**Flood Hazard Information**

Source: Mobile Home Park Registry, Vermont Dept. of Housing & Community Development

<table>
<thead>
<tr>
<th>Highest Flood Hazard Area of Lots</th>
<th>Highest Flood Hazard Area of Land</th>
<th>Flood Hazard Area Data Source</th>
<th>Highest FEH Zone</th>
<th>Number of Lots in a FEH Zone</th>
<th>Number of Lots in a Flood Hazard Area</th>
<th>Percent of Lots In a Flood Hazard Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floodway</td>
<td>Floodway</td>
<td>Draft FIRM</td>
<td>Extreme</td>
<td>32</td>
<td>32</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Infrastructure Information**

Source: Vermont Dept. of Housing & Community Development, Vermont Agency of Natural Resources
Developing a Park Emergency Plan

- Park Emergency Preparedness Committee Contacts (identify roles)
- Hazard assessment (regional & in-park)
- Park resources (volunteers, skills & equipment)
- Evacuation plan (maps)
- List of persons needing special assistance
- Local emergency shelter locations
- Local contacts and resource directory
**“AnyCoop” Mobile Home Cooperative Emergency Plan**

Signed: _______________ Name Jane Doe Title/Position President, Coop Board

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### Section 1: Park Description

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Park Name</strong></td>
<td>Milton Mobile Home Cooperative</td>
</tr>
<tr>
<td><strong>Town</strong></td>
<td>Sometown, VT</td>
</tr>
<tr>
<td><strong>Park Address/Physical Location</strong></td>
<td>999 Route ___</td>
</tr>
<tr>
<td><strong>Describe Location</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Number of occupied homes</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>Elevation of property</strong></td>
<td>Elevation range being determined</td>
</tr>
</tbody>
</table>

**Park Owner Contact Information**
- **Name**: Owner’s Name
- **Address**: Route South, VT 05000
- **Email**: Jane Doe
- **Phone Number**: 802-999-9999

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### Section 3: Hazards Specific to your Park

<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivers or streams</td>
<td>__ tiny stream in ravine (not a big concern)__</td>
</tr>
<tr>
<td>Flood Hazard Areas</td>
<td>__</td>
</tr>
<tr>
<td>Dam failure</td>
<td>__</td>
</tr>
<tr>
<td>Sloping banks/ravines</td>
<td>__</td>
</tr>
<tr>
<td>Swampy areas/standing water</td>
<td><strong>in ravine</strong></td>
</tr>
<tr>
<td>Culvert/drain blockage</td>
<td>__ in front of Lot 44__</td>
</tr>
<tr>
<td>Truck routes/railroads</td>
<td>__ Rt. 7 truck route__</td>
</tr>
<tr>
<td>Diseased trees/large dead limbs</td>
<td>some Recently cut back diseased trees__</td>
</tr>
</tbody>
</table>

---

Click here for full example plan
Integration of Town—Park Planning

- Park Point of Contact
  - Communications Person
  - Medical Special Needs Assistant
  - Record Keeper
  - Volunteer & Donations Coordinator
- Security
- Operations
- Planning
- Logistics
- Admin./Finance
- Town Incident Commander
Milton Coop a pilot park to test plans within Vermont’s 2014 CAT2 Exercise—
CAT2 Participant Parks

Milton Mobile Home Cooperative

Bunker Hill Cooperative
Milton Mobile Home Cooperative

Community Description:

- 100 unit park
- Resident-owned in 2012
- Close to center of town directly on Route 7
- 7 Person exercise team
Milton MHP - Local hazards and issues identified through the planning process

• Within Park:
  • Social
  • Ravine
  • Structural fires
  • High winds/storms

• Outside the Park:
  • Tire dump
  • Route 7 truck route
E-911 Signage

- Relatively easy and low-cost action
- Transition was not easy
- Confusion between lot numbers and E911 addresses

Some parks use both old and new signage during transition
Milton Coop – Table Top & Discussion-Based Exercise

Issues

• Establishing alternates/backups

• Job training tools, task checklists & sample messaging

• Identify all community notification strategies

• Identify vulnerable households
Milton Coop – CAT2 Exercise

• Situation was water emergency

• Point of contact and Park EOC stand-up was smooth

• Great volunteer participation

• Close communication between record keeper and POC

• Majority of homes were contacted quickly
  • Messaging was inconsistent

• Field teams had trouble with record-keeping (documenting homes notified)

• Notifications and updates while teams were in the field were problematic

• Communication between Field Teams and PEOC was problematic
Milton Coop – AAR Strengths

• Strengths—
  • Volunteer recruitment

• Prompt notification
  • Door to door system worked

• Central PEOC setup

• Some systems in place for notification/communication
  • Cell phones, division of park in sections, clear Point of Contact)
Milton Coop—AAR Areas for Improvement

• Exercise-Issues:
  • Didn’t test ability of group to convene
  • Participants didn’t receive full explanation of sim cell
  • Disconnect with the town

• Within-Park Issues:
  • Inconsistent messaging (teams sent out without written notification script)
  • No procedure for managing notification updates
  • Need for standardized record keeping tools & volunteer training on tools
  • Need to improve communication with town & park manager
  • Need to insure that batteries charged and options in event of no electricity are assessed
  • Need simpler basemap
CAT 2 Exercise Summary

- Park notification procedures were tested

- Substantial improvements before and after action

- Technical assistance is essential

- Community confidence clearly increased

- Integration with municipal EMD’s, Fire Chiefs, EMS was the greatest challenge

Photo Credit: Dan Baker
Connecting outside of the park: NVDA Perspective?

• What are your thoughts and recommendations?

• Do you know park residents or owners who might be interested in park planning?

• Who locally should we include in the conversation? (fire chiefs, emergency management directors, RPC)

Importantly, HOW do we get these critical partners involved?
UVM CDAE Website and Park Database: www.uvm.edu/mobilehomes

- Mobile Home Park Community Data and Mapping
- Park Planning Resources
- Links to other resources
  - CVOEO Mobile Home Program
  - VT DHCD
  - DEMHS
  - VCGI
  - Others?
Contact Information

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Scott Hamshaw, MS
GIS Analyst
University of Vermont
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Visit our website for updates and more information:
www.uvm.edu/mobilehomes