National Flood Insurance Program (NFIP) updates in Minnesota

presented by
DNR Ecological & Water Resources
Agenda

- Regulations
- FEMA maps & map updates
- Mitigation
- Flood insurance
- 2012 & 2014 reform acts
- Interaction of new maps & flood insurance
- Demo of key helpful web sites
NATIONAL FLOOD INSURANCE PROGRAM (NFIP) - 1968

1) ID FLOODPLAIN (FEMA Maps)
2) DEVELOPMENT STANDARDS (administered locally)
3) FLOOD INSURANCE (not mandatory yet)
4) Mitigation
Sample FEMA Map with SFHA

National Standard of “100-year flood” chosen

High Flood Risk
- Zone A & AE (old)
- Zone A & AE (new)

Medium Flood Risk
- Zone B (old maps)
- Zone X (shaded)

Low Flood Risk
- Zone C (old maps)
- Zone X (unshaded)
Key Updates

- **1973** - Flood Disaster Protection Act
  - mandatory flood insurance purchase

- **1977** – EO 11988 – federal projects in FP
  - January 2015 EO 13690 amended EO 11988

- **1994** – NFIP Reform Act
  - lender fines/penalties; 5 day waiting period to 30 day

- **2004** – Stafford Act - Repetitive Losses targeted

- **2012** – Biggert-Waters reform act
  - Extends National Flood Insurance Program 5 years
  - Phasing pre-FIRM to full risk rates (some immediate)

- **2014** – Homeowners Flood Insurance Affordability Act (aka Grimm-Waters Act)
Roles & Responsibilities

- **Zoning Authority (city, county or township)**
  - Most important!
  - Adopts ordinance, enrolls in National Flood Insurance Program (NFIP), administers & enforces, KEEPS RECORDS

- **State** – Oversight; technical assistance & training; approve ordinances & some data/mapping; coordinate between FEMA & community (& watersheds, HSEM, etc.)

- **Watershed District** – may have overlapping regulations &/or mitigation projects; often key data source

- **FEMA** – Oversees NFIP (enrolls; can suspend); produces / approves maps & data
Participating in National Flood Insurance Program (NFIP)

492 Cities

15 Townships

2 Tribes

85 Counties (all with zoning; not Hennepin & Ramsey)

594 Total

* >95% of State Population Eligible
Federal Emergency Management Agency
Community Status Book Report

MINNESOTA

Report Level: State

Communities Participating in the National Flood Program

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# Federal Emergency Management Agency
## Community Status Book Report
### MINNESOTA
#### Communities Not in the National Flood Program

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~89 Communities in MN
# FLOOD FREQUENCY

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<td>500-Year</td>
<td>0.2% *</td>
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* Chance of being equaled or exceeded in any given year.
SYNONYMOUS TERMS

- One-Percent (1%) Chance Flood
- 100-Year Flood
- Base Flood Elevation, or BFE (FEMA)
- Regional Flood (MN DNR)
- Special Flood Hazard Area, or SFHA (FEMA)
- High Flood Risk Area
Floodplain Cross-Section
Floodway versus Flood Fringe

100 YEAR FLOODPLAIN

FLOOD FRINGE

FLOODWAY

STREAM
Floodplain Cross-Section

Encroachment Allowed

100 YEAR FLOODPLAIN

FLOOD FRINGE

FLOODWAY

SURCHARGE < 0.5 FOOT*

*As long as no increase in flood damage potential (no buildings impacted)
Typical Zoning Map with General Floodplain District
Top View of Floodway vs Flood Fringe
MN REGULATORY FLOOD PROTECTION ELEVATION (RFPE) – Minimum lowest floor

1% chance

100-year flood elevation/BFE

+ Stage increase due to Flood Fringe

+ 1 Foot (minimum) of freeboard*

= Regulatory Flood Protection Elevation (State of MN)

* Mandatory after 1997 State law change
Ice Jam!

Benson, MN - 2010
State Minimums for Structures in Flood Fringe Areas

Top of Floor at RFPE*

100-year flood elevation (BFE + stage increase)

> 15'

> 15'

> 1'

*RFPE = 100-year flood (BFE) + stage increase + 1' freeboard (minimum)
Flood Risk Assessment Methods Evolving . . .
Flood Hazard Boundary Map (FHBM)
FIS NARRATIVE
Flood Insurance Rate Map (FIRM)
Two-Map Format (Pre-1988)
Flood Boundary Floodway Map (FBFM)
Two-Map Format (Pre 1988)
Flood Insurance Rate Map (FIRM)

One-Map Format (Post 1988)
Floodplain Mapping Modernization

St. Paul Digital FIRM

FW
1 %
0.2 %
Floodplain Mapping Modernization

St. Paul Digital FIRM

- FW
- 1%
- 0.2%
Status of County Floodplain Map Updates (as of 8/31/15)

Start of 6-Month Window for Ordinance Updates

- 2015
- 2016 and after
- Complete
- In Progress
- No New Map
- Unmapped
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<td>01/22/07</td>
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<td>07/08/12</td>
<td>07/08/12</td>
<td>07/08/12</td>
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<td>06/10/11</td>
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<td>01/08/13</td>
<td>05/29/13</td>
<td>05/17/13</td>
<td>05/17/13</td>
<td>05/17/13</td>
<td>05/17/13</td>
</tr>
</tbody>
</table>

For more information, visit [http://files.dnr.state.mn.us/waters/watermgmt_section/floodplain/map_update_process_county_timing.pdf](http://files.dnr.state.mn.us/waters/watermgmt_section/floodplain/map_update_process_county_timing.pdf)

Or go to mndnr.gov & search “FEMA map update status”
Preliminary & Effective DFIRMs

- DNR Eco/Waters posts electronic copies at:
  ftp://ftp.dnr.state.mn.us/pub/waters/floodplain/County_data/

Can view:

- FIRM panels as pdfs (FIRM)
- FIS as pdf (FIS)
- GIS files (DFIRM_DB)
Estimated 1% Water Surface Elevation (available soon in G.O.O.D.)

Detailed in Effective DFIRM
Detailed in Preliminary DFIRM
Detailed in “FEMA Unmodernized” layer (aka Q3)
Detailed on Paper Maps
Estimated 1% Water Surface Elevation (available soon in G.O.O.D.)
Model Based A Zone ("Pink Line") Example
MN Geo Commons
https://gisdata.mn.gov/
“FEMA Digital Flood Rate Insurance Maps (DFIRM), Minnesota”
St Louis –
April 2016

Zone A Map and Model Status

- Digital Maps
- Zone A models
- FOA Models
- No Zone A models
What’s the Option if House is Really High?

Lender must require flood insurance if they are “in” the Special Flood Hazard Area (Zone A) on the map, no matter how high they really are.

Can only be changed by FEMA with Letter of Map Amendment (LOMA)
LOMA
Letter of Map Amendment

- A letter from FEMA stating that an existing structure or parcel of land that has *not* been elevated by fill would not be inundated by the 100-year flood

- The FEMA map is wrong – *better topographic contour lines or a field survey shows site is above BFE*
Natural Grade

Lowest Adjacent Grade (LAG)

BFE

LOMA
Use of LiDAR for LOMAs

This abbreviated LOMA application process is intended for locations where it is clear that the entire building (or the entire lot) is above the base flood elevation (BFE) based on review of the LiDAR derived contour elevations compared to the base flood elevation.
LiDAR Data Collected by Blocks

- SE Minnesota
- SW Minnesota
- Arrowhead Region
- Metro Area
- Individual Counties
- North Central MN
- Red River Valley
Can be done by community, surveyor or PE
Online Map Resources

- FEMA’s Map Service Center (MSC) - Good starting point www.MSC.FEMA.gov

- FEMA National Flood Hazard Layer (NFHL) viewer - Best source for Digital Flood Insurance Rate Maps (DFIRMs)
  http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30

- MNTOPPO – Can see 2-ft contours statewide, and floodplain layers (where available)
  http://arcgis.dnr.state.mn.us/maps/mntopo/
Have Interactive Map link if finalized DFIRM county.
GOT FLOOD INSURANCE?
Who Can Buy Flood Insurance?

- Community Participation
- All Zones
Sample FEMA Map with SFHA

National Standard of “100-year flood” chosen

High Flood Risk
- Zone A & AE (old)
- Zone A & AE (new)

Medium Flood Risk
- Zone B (old maps)
- Zone X (shaded)

Low Flood Risk
- Zone C (old maps)
- Zone X (unshaded)
Mandatory Flood Insurance

- If **STRUCTURE** is in Zone A, AE, AO, A1-30 **AND** they have loan from federally regulated institution (since 1974)
- Even if structure is really high, unless they obtain a Letter of Map Amendment (LOMA)
- NOTE: Some lenders have more restrictive requirements for their business (i.e., in 500-year, or replacement cost vs loan balance)
NON-SFHA Flood Zones

- Zones B, C, and X
- Voluntary Market
- \( \frac{1}{4} \) of all claims paid in these zones
Flood Risk is Seen as Black & White!
Percent Chance of Flooding over a 30-yr Period

96% +

26%

11%
Standard vs. Preferred Risk

- **Standard Rates** -
  - Rate Tables provided in Flood Insurance Manual
  - Fixed premiums; fixed limits
  - For those not eligible for Preferred Risk Policy due to loss history

- **Preferred Risk Rates** -
  - Must be in Zone B, C, or X at time of application AND each subsequent renewal*
  - Limited loss history

**NOTE:**
*A building which becomes ineligible for PRP due to a zone change will renew using Standard Rates. However, the old low- or moderate-risk zone can still be “locked” in.*
### Table 1. The PRP Coverage Limits

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Maximum Limits by Occupancy Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-4 Family</td>
</tr>
<tr>
<td>Combined Building/Contents</td>
<td>$250,000/$100,000</td>
</tr>
<tr>
<td>Contents Only</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

### Table 3A. PRP Coverage Limits and Premiums

For properties currently mapped in B, C, or X Zones

#### 1-4 Family Residential Building and Contents Coverage Combinations

<table>
<thead>
<tr>
<th>With Basement or Enclosure</th>
<th>Without Basement or Enclosure</th>
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</thead>
<tbody>
<tr>
<td>Building</td>
<td>Contents</td>
</tr>
<tr>
<td>$ 20,000</td>
<td>$ 8,000</td>
</tr>
<tr>
<td>$ 30,000</td>
<td>$12,000</td>
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<tr>
<td>$ 50,000</td>
<td>$20,000</td>
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<td>$ 75,000</td>
<td>$30,000</td>
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<td>$125,000</td>
<td>$50,000</td>
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<td>$150,000</td>
<td>$60,000</td>
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<tr>
<td>$200,000</td>
<td>$80,000</td>
</tr>
<tr>
<td>$250,000</td>
<td>$100,000</td>
</tr>
</tbody>
</table>

#### Residential Contents-Only Coverage

<table>
<thead>
<tr>
<th>Contents Above Ground Level More Than 1 Floor</th>
<th>All Other Locations (Basement-Only Not Eligible)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>Premium</td>
</tr>
<tr>
<td>$ 8,000</td>
<td>$44</td>
</tr>
<tr>
<td>$12,000</td>
<td>$63</td>
</tr>
</tbody>
</table>
Sample FEMA Map with SFHA

National Standard of “100-year flood” chosen

High Flood Risk
- Zone A & AE (old)
- Zone A & AE (new)

Medium Flood Risk
- Zone B (old maps)
- Zone X (shaded)

Low Flood Risk
- Zone C (old maps)
- Zone X (unshaded)
For Structures IN SFHA
Two rate structures:

- **Pre-FIRM**
  - Before initial FIRM
  - On or Before 12/31/1974
  - Whichever is LATER
  - “OLD STANDARDS”

- **Post-FIRM**
  - On or After the initial FIRM
  - After 12/31/1974
  - Whichever is LATER
  - “NEW STANDARDS” or “In Compliance”
Comparison of Flood Insurance Costs Over a 30-yr Period

*Existing Pre-FIRM House slab on grade*

$941 yearly

($28,230) Life of Loan

$941 yearly

($28,230)

BFE

$941 yearly

($28,230)

+2 FT

-1 FT

-7 FT

Based on $100,000 building & no contents coverage; $1,000 deductible (10/1/09 rates)
Comparison of Flood Insurance Costs Over a 30-yr Period

**Existing POST-FIRM House**

<table>
<thead>
<tr>
<th>Level difference</th>
<th>Yearly Cost</th>
<th>Total Cost for Life of Loan</th>
</tr>
</thead>
<tbody>
<tr>
<td>+2 FT*</td>
<td>$305 yearly</td>
<td>($9,150)</td>
</tr>
<tr>
<td>-1 FT</td>
<td>$2,875</td>
<td>($86,250)</td>
</tr>
<tr>
<td>-7 FT</td>
<td>$13,417</td>
<td>($402,510)</td>
</tr>
</tbody>
</table>

*Legally-built at RFPE is +1

**BFE**

Based on $100,000 BLDG & NO CONTENTS COVERAGE; $1,000 deductible (10/1/09 rates)
Reform Acts

- Biggert-Waters Act of 2012 (BW-12)
- Homeowners Flood Insurance Affordability Act of 2014 (HFIAA)
NICE PILINGS!
Philosophy Behind Biggert-Waters

- Signed July 6, 2012 - Extends NFIP 5 years
- Establishment of the National Flood Mapping Program; Technical Mapping Advisory Council (TMAC) set up; recognizes mapping importance
- Grant program changes
- Majority of reforms focused on financial solvency of the program
  - Those living at risk should pay more
  - Truly pricing risk may equal better mitigation decisions

Philosophy behind Grimm-Waters

- Signed March 21, 2014
- Retreat from some provisions of BW-12, especially the big pain points!
BW-12 Changes with Biggest Impacts (on pre-FIRM buildings in Zones A, D & V)

- Policies went straight to full risk rates
  - New sales
  - New policies
  - Policies that had lapsed for certain time period

- Impacts
  - Sales stalled – huge impacts in some markets
  - Those who got new policy or had sale between 7/6/2012 and when the full risk rates took effect after 10/1/2013 got sticker shock
  - Lots more interest in mitigation options
How Does Elevation Affect Premiums?
Phased in & Immediate Changes

Rates for $200K Building/$80K Contents coverage on 10/1/2013 (except as noted).
Homeowners Flood Insurance Affordability Act (HFIAA)

- HFIAA signed 3/21/2014
- Also known as Grimm-Waters Act of 2014 (GW-14)
- Addressed most painful impacts of BW-12
  - Not straight to full risk rates for new policies/sales, on slower glide path to full risk rates
    - 18% annual cap for primary residential
    - 25% for non-primary residential, businesses, repetitive losses
  - Primary residential to 50% (vs 80%)
Determining Full-Risk Rate

- Obtain an Elevation Certificate (EC)
- Ask their insurance agent to rate using EC
- Estimate when 25% Phase-in = Full-Risk Premium

Example 1*: LFE-BFE = -3’ Full-Risk Premium = $7,922

Example 2*: LFE-BFE =0’ Full-Risk Premium = $1,722

*Pre-FIRM, Slab, Secondary Home, $200K/$80K (Building/Contents), Zone AE
Surcharges

To keep GW-14 cost neutral (and meet house requirements), they needed to balance the funds lost by not going straight to full risk rates, and the slower increases.

Annual surcharges to be applied*:

• $25 for primary residences
• $250 for all other buildings
• Included on all policies until all pre-FIRM subsidies are eliminated

Surcharges are not subject to premium increase caps

*Started April 1, 2015
Within 45 days!!

If citizen gets letter from bank, advise them to act quickly:

- Verify if structure’s in Zone A(AE)
- See if eligible for LOMA or LOMA-OAS
- Get NFIP flood insurance if they can’t resolve within 45 days or lender will/can “force place” insurance that is not NFIP.

New map dated 11/16/11
Newly Mapped Rates

POLICIES FOR BUILDINGS NEWLY MAPPED INTO A HIGH-RISK AREA
RATING OPTION INFORMATION FOR INSURANCE AGENTS TO EASE THE TRANSITION

New Flood Insurance Rate Maps (FIRMs) can show that the risk of flooding has changed. And for some property owners, a change in risk means new flood insurance requirements. In recent years, the Federal Emergency Management Agency (FEMA) has sought to ease the financial impact of a map change by extending eligibility for a lower-cost Preferred Risk Policy (PRP) if a building outside of the high-risk area called a Special Flood Hazard Area (SFHA) is newly mapped into the SFHA.

Until now, the PRP Eligibility Extension has applied to any building newly mapped into an SFHA since October 1, 2008, although as of October 1, 2013, PRP Eligibility Extension premiums began increasing at a higher rate on renewal. But beginning April 1, 2015, FEMA is implementing a new procedure to meet requirements of the Homeowner Flood Insurance Affordability Act of 2014 (HFAA).

Following a map revision, the owner of a building newly mapped into an SFHA will be rated according to a new procedure for newly mapped properties. The rate will be equal to the PRP rate, but with a higher reinsurance funding and Federal Policy Fee, for the first 12 months following the map revision. After the introductory year, the rate will begin its transition to a full-risk rate with annual rate increases of no more than 18 percent each year. Here’s how it will work:

NEWLY MAPPED INTO AN SFHA

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Property Owner Eligibility</th>
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</thead>
<tbody>
<tr>
<td>Property newly mapped into an SFHA on or after April 1, 2015</td>
<td>Eligible for the Newly Mapped procedure if the policy becomes effective within 12 months of the map revision date.</td>
</tr>
<tr>
<td>Property newly mapped into an SFHA on or after April 1, 2015, but not counted within 12 months of the map revision date</td>
<td>No longer eligible for the Newly Mapped procedure. Post-FIRM buildings are eligible for grandfathering rating. Pre-FIRM buildings are not eligible for any reduced rates.</td>
</tr>
<tr>
<td>Property newly mapped into an SFHA between October 1, 2008, and March 31, 2015, but not currently assessed</td>
<td>Eligible for the Newly Mapped procedure if covered before April 1, 2016.</td>
</tr>
<tr>
<td>Property with policy valid issued under the PRP Eligibility Extension prior to April 1, 2015</td>
<td>Renewed using the Newly Mapped procedure on the first effective date on or after April 1, 2015. Policies for these buildings will increase the same premium as those newly issued using the Newly Mapped procedure.</td>
</tr>
</tbody>
</table>

Property owners who do not have flood insurance and find that their buildings are being newly mapped into an SFHA should be encouraged to purchase a PRP before the new FIRMs become effective. Not only is there a risk higher than they thought, but any potential flooding will not wait until the new maps become effective. And they also will be able to renew their policies at lowered PRP rates during the first 12 months after the new map becomes effective. In other words, they will gain almost an extra year at PRP rates.

Note that the same eligibility requirements that apply for PRPs also apply for the Newly Mapped procedure. A property that falls outside this category might be eligible for the Standard X Zone rating.

Additional Information:
- For more details on the newly Newly Mapped procedures, read WYO Bulletins W 44053 and W 44055, which can be found at NFRPService.com.
- For information about grandfathering and other rating options, refer to the latest Flood Insurance Manual found at fema.gov/Flood-Insurance-Manual.
- To monitor flood map updates in your area and download related marketing materials to better communicate the impact of these changes on your clients, visit Agents.FloodSmart.gov and select Map Updates listed under Managing Policies.
- To stay up-to-date on the implementation of other sections of the reform legislation, visit fema.gov/Flood-Insurance-Reform.
If structure is near Zone A, use better aerial photos.

Check if structure is “in.” Might be clear.
IF Better Aerial in Overlay Shows “Out”

- Show to lender.
- Some will accept the better data.
- Some lenders will still insist on getting Letter of Map Amendment (LOMA) from FEMA
- Would be eligible for cheaper policy in meantime.
Be Aware of Letter of Map Amendment Process & Options

- See information at MnDNR web site about LOMAs & LOMAs-OAS

- Now online application options

- Newer option to use 2-foot contours derived from LiDAR in lieu of a field survey
  - Option available for much of state
  - Good when not a close call
New Message to Homeowners

- Get an **Elevation Certificate** to determine your correct rate or see if LOMA is option!
- Talk to insurance agent about policy options, i.e., Higher deductibles might lower your premium (but consider your situation; not good idea if basement flooding is most likely scenario)
- Look at options to elevate or partially mitigate
The Case for Freeboard

New Construction of 2,000 sq. ft. Primary Residence, A-Zone, Monthly Payment*

At BFE
- $963 – principle + interest
- $144 – flood insurance
- $1,107

+2 Feet Freeboard
- $992 – principle + interest
- $51 – flood insurance
- $1,043 – 6% decrease

+3 Feet Freeboard
- $1,006 – principle + interest
- $44 – flood insurance
- $1,050 – 5% decrease

*$200K/$80K Bldg/Contents. Assumes $190,000 in initial construction costs plus all additional freeboard construction costs financed at 4.5%, 30-year fixed rate.
Community Rating System

- A way to reduce premium for all in community
- Community does higher level of floodplain management and earns a rating of class 1 to 9 (based on points)
- Must use FEMA’s Elevation Certificate, but can choose points from lots of possible activities like: higher standards, open space in floodplain, mitigation projects, public education, etc.
## CRS Classes & Discounts

<table>
<thead>
<tr>
<th>Credit Points</th>
<th>Class</th>
<th>Premium Reduction SFHA*</th>
<th>Premium Reduction Non-SFHA**</th>
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<tr>
<td>4,500+</td>
<td>1</td>
<td>45%</td>
<td>10%</td>
</tr>
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<td>4,000 – 4,499</td>
<td>2</td>
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<td>5%</td>
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<tr>
<td>500 – 999</td>
<td>9</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>0 – 499</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

For more information, contact MN’s CRS contact Melissa Mitchell at MMitchell@iso.com or 913-543-0632
Flood Damage Reduction (FDR)

Over 3,500 structures removed from floodplain (with FDR assistance)

Large Flood Control Structures

East Grand Forks: Set back levee; many buyouts

Acquisitions

Ring Dikes

Red River Valley: Over 215 ring dikes
1998 to present; ~ $4.5 Million FDR
Funding History for Minnesota’s Flood Damage Reduction Grant Program

$473.7 million - predominantly bond funds

Historic 1997 Red River flood
Minnesota Flood Risk Reduction Projects

1987 – 2013: 285 Completed & 72 In-Progress (as of 10/4/2013)

~85% of funding in Red River Valley

Complete

In-Progress
Returns on Investment

- 3.18 in Moorhead for 27 acquisitions
- 7.47 in Montevideo for 48 acquisitions
- 2.65 in Austin for 165 acquisitions (2013 update)
Moorhead Mitigation Example

Brookdale Area
East Grand Forks

After
Floodplain Higher Standards

Minnesota’s had many higher floodplain management standards since the first State Rules were adopted in 1970. Examples:

- 1 to 1.5 feet freeboard (1 foot plus any stage increase)
- Stage increase limited to 0.5 feet, AND no increased damage potential
- Most structures prohibited in floodway
- Many “optional” higher standards in state model ordinance are being adopted
Enforce Ordinance Now to Prevent Future Damage

Roseau, MN
June 12, 2002
(close to 500-yr)

Photos source: MNDNR Forestry
Keep Development out of Floodplain From Beginning
Lake Hiawatha & Lake Hiawatha Golf Course During Record High Levels
Mainly Public Infrastructure Damage

Landslide next to U of MN Hospital (closes road)

Walkers & bikers must share!

Photo source: MNDNR EWR
July 15, 2014 All Star Game

Photo: Star Tribune