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IAFSM Conference

Community Rating System

Lake in the Hills CRS

From 10 to 7

Ralph C. Stark Jr. P.E. CFM

IASFM Conference

March 10, 2010

Tinley Park, Illinois



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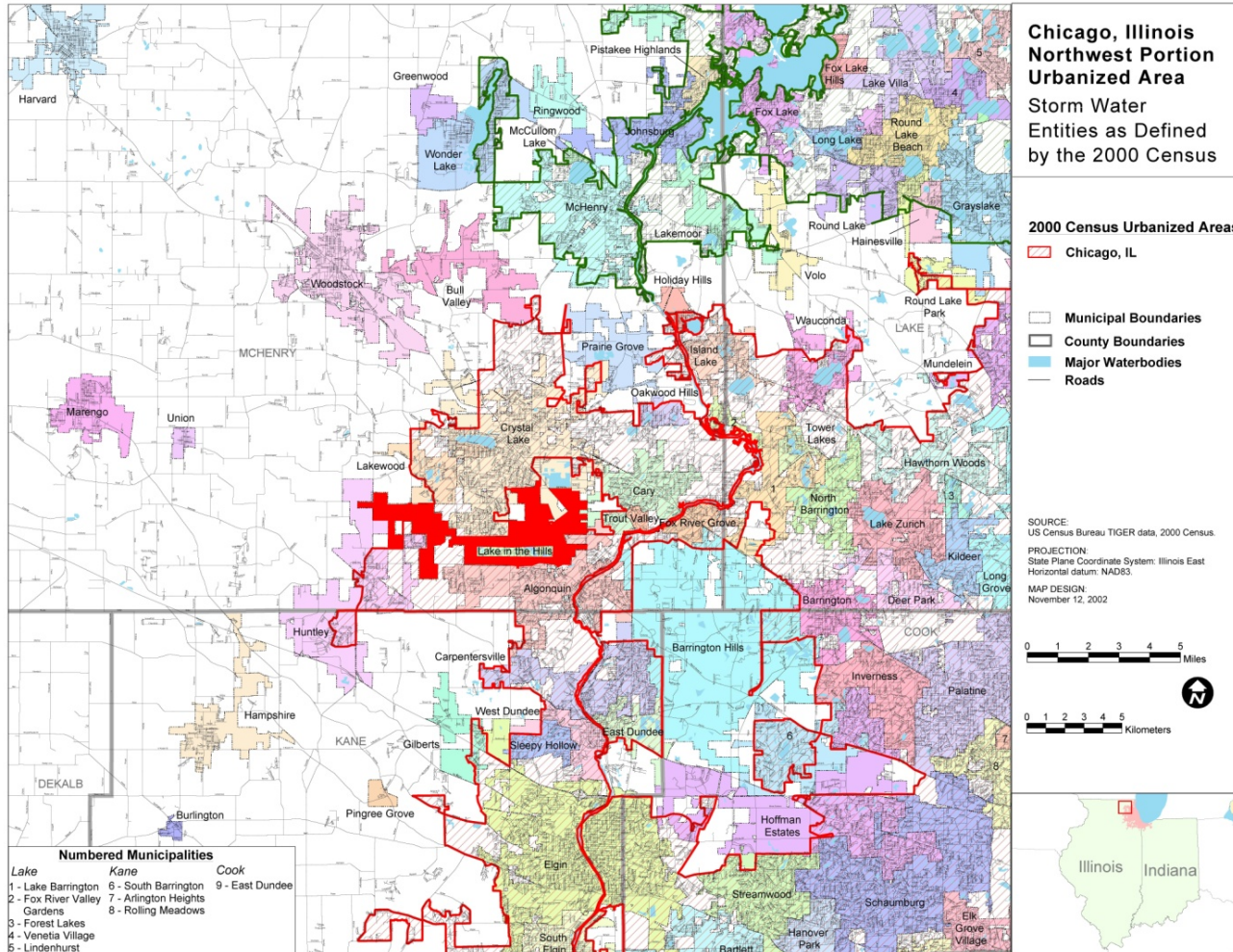
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Location of Lake in the Hills - Population

Founded 1952

Population
29,152

Applied to CRS
Program 2007



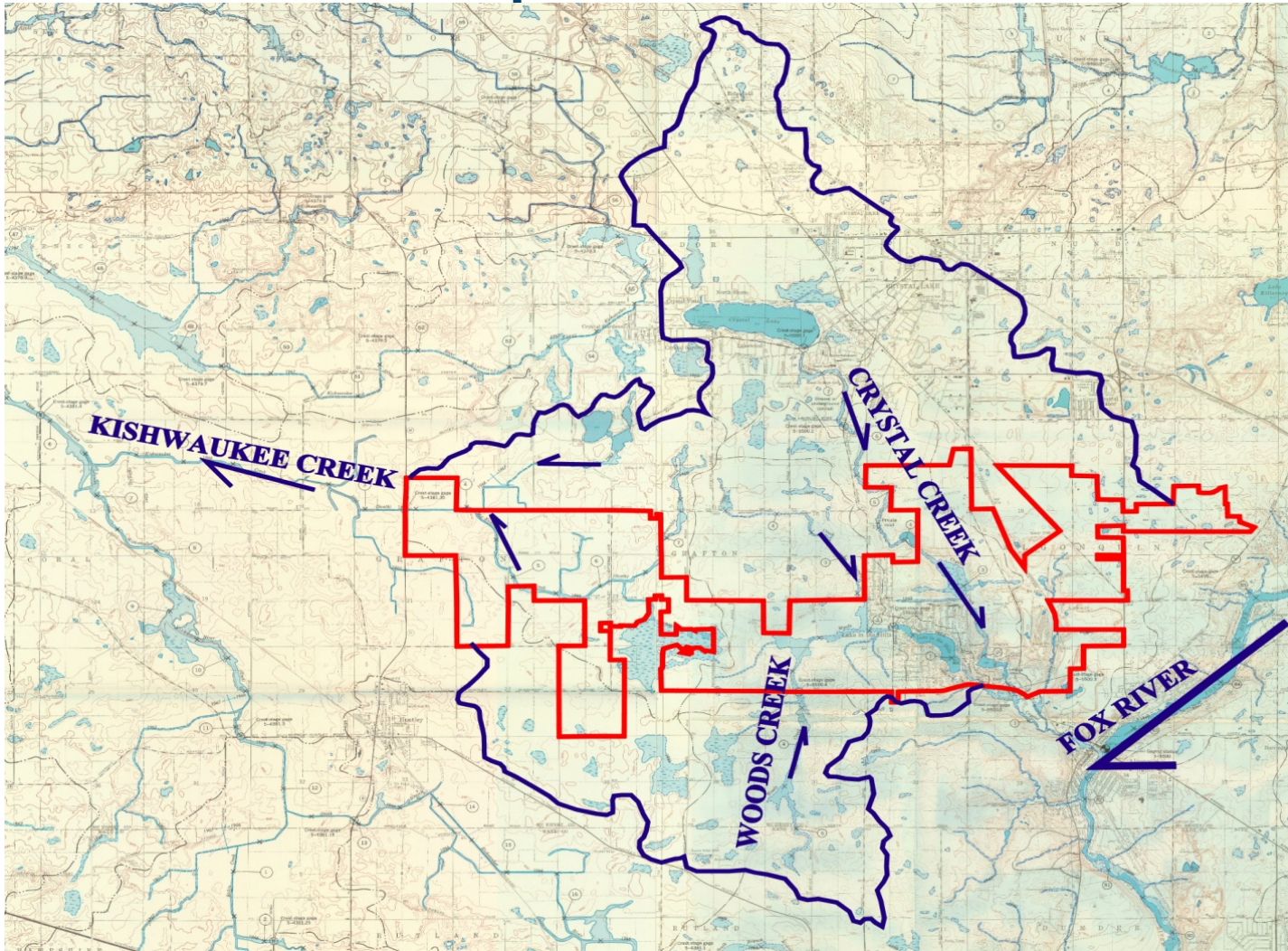


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Streams and Floodplains of Lake in the Hills





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What is the Community Rating System (CRS)?

The CRS program awards points to municipalities who take actions or make regulations in excess of the minimum requirements of the National Flood Insurance Program.

For every 500 points awarded, residents of the municipality get a 5% reduction in their flood insurance premiums.



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Sections of the Community Rating System

- 300's Public information (Elevation Certificates, Map Reading, Outreach Projects, etc.)
- 400's Mapping & Regulations
- Repetitive Loss Requirements
- 500's Flood Damage Reduction (Planning, Acquisition, Flood Protection)
- 600's Flood Preparedness (Warning Program, Levee & Dam Safety)



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Section 400 (Mapping & Regulations)

- 410 Additional Flood Data (new studies)
- 420 Open Space Preservation
- 430 Higher Regulatory Standards
- 430LD Land Development Criteria
- 440 Flood Data Maintenance (improving access to current maps)
- 450 Stormwater Management



Impact Adjustment Ratios

- Open Space Preservation (420) & Floodplain Regulation (430) adjustment is based on % of floodplain it applies to.
- Stormwater Regulation (450) adjustment is based on the % of the watershed it applies to.

3 Options

- Item applies to all area (1.0)
- Default ratio
- Calculated ratio



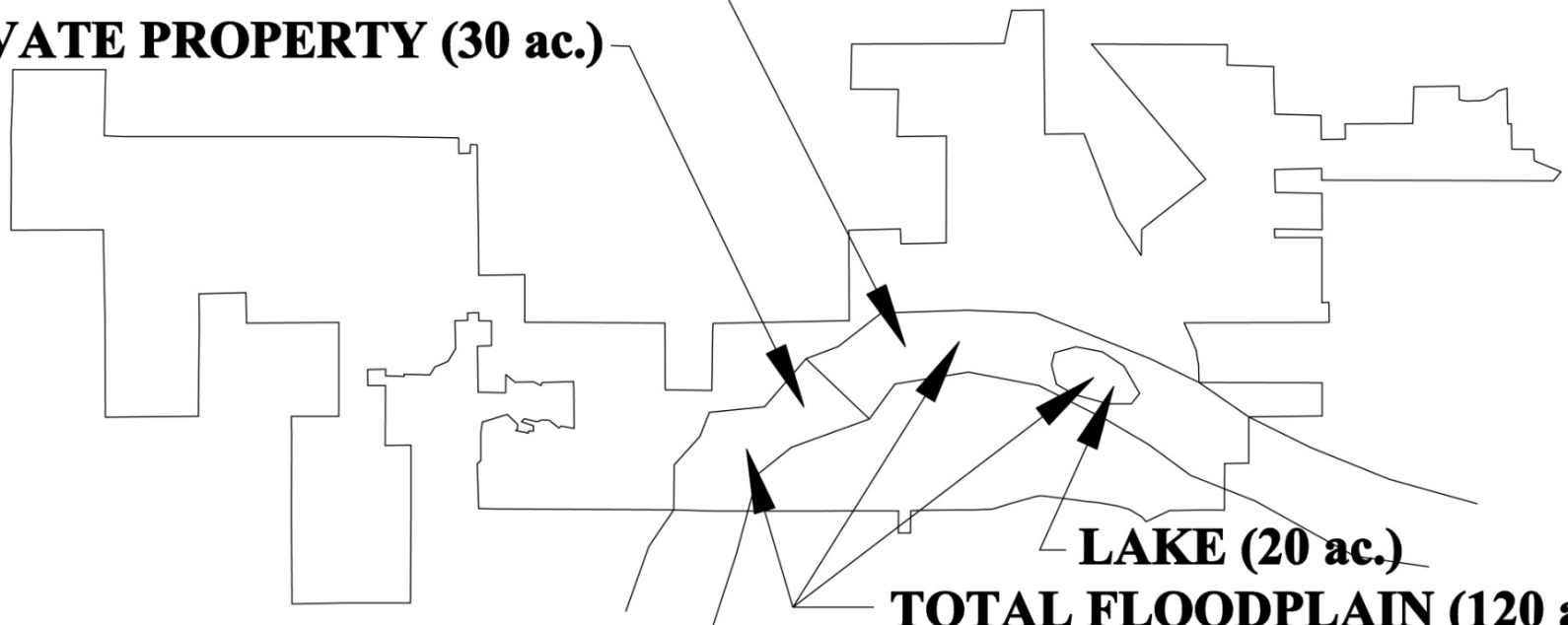
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Example of Impact Adjustment Ratio determination

**PRESERVED
OPEN SPACE (70 ac. excluding lake)**

PRIVATE PROPERTY (30 ac.)



LAKE (20 ac.)

TOTAL FLOODPLAIN (120 ac.)

NET FLOODPLAIN (100 ac.)



420 Open Space Preservation

- Preserved Open Space (725 points - default ratio 0.05)
 - Owned by Village
 - New development prevented by regulation (Floodway)
- Deed Restrictions (75 points - default ratio 0.1)
- Natural Condition Maintained/Restored (100 pts. - default ratio 0.1)

430_LD Land Development Criteria

- Encourage preservation (100 points)
- Low density zoning - 60 points x minimum lot size from 1 – 10 ac.



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430 Higher Regulations

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	Maximum	Typical	Comments
Freeboard	300	200	100 points per ft
Foundation Protection	35	20	Compaction, PE approval
Cumulative Improvement	110	110	10 yr. Tracking, ICC
Lower Substantial Imp. below 50%	90		
Critical Facilities	100	50	Avoid vs. Protect
Protection of Storage	80	70	Compensatory Storage
Preserve Natural	40	15	
Enclosure Limits	300		Prohibit below BFE
Other	100		Scored by FEMA
		465	

Total points from 420 and 430 ----- $725 \times 0.7 + 465 \times 0.3 = 647$

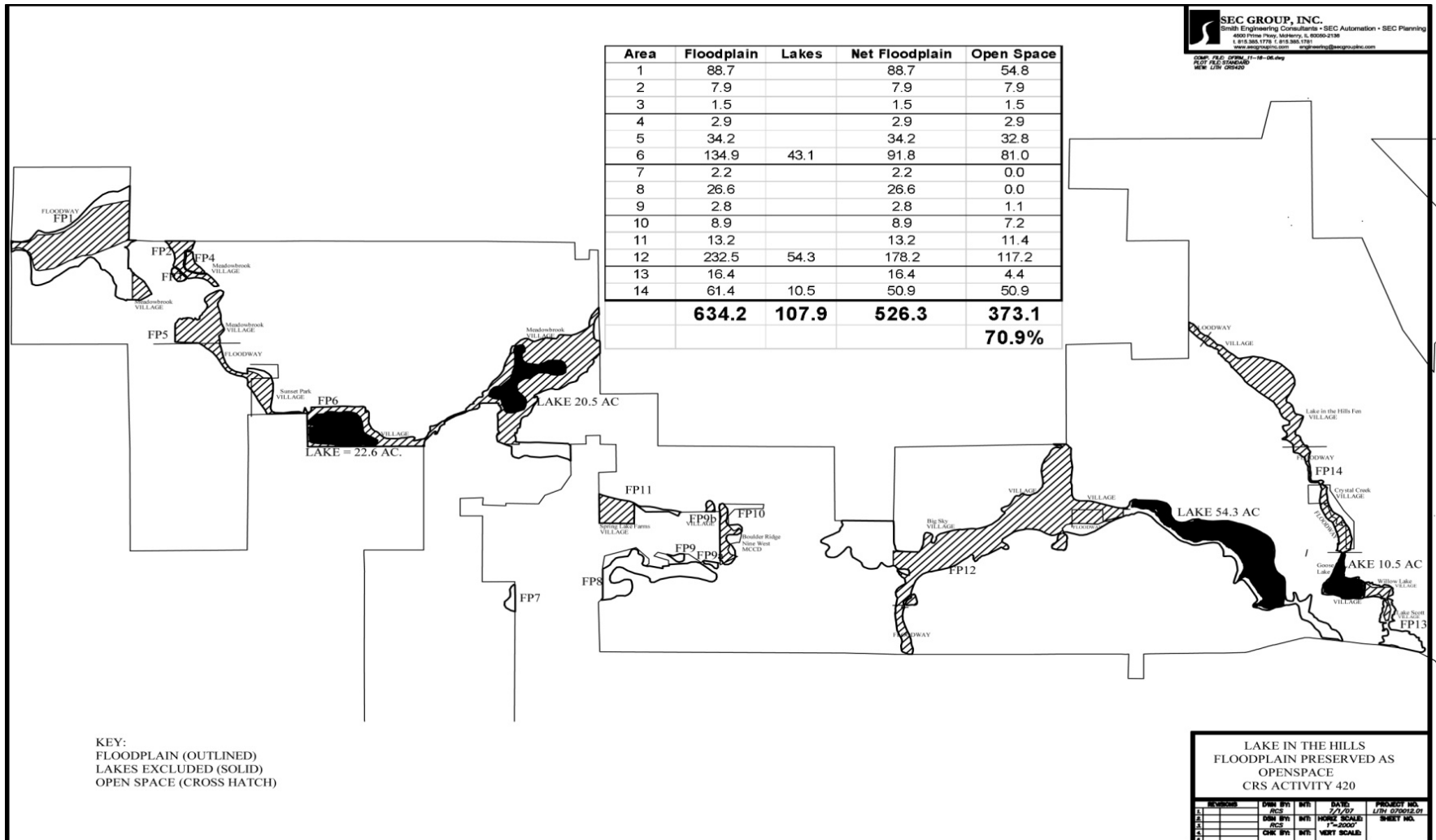


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Lake in the Hills Example

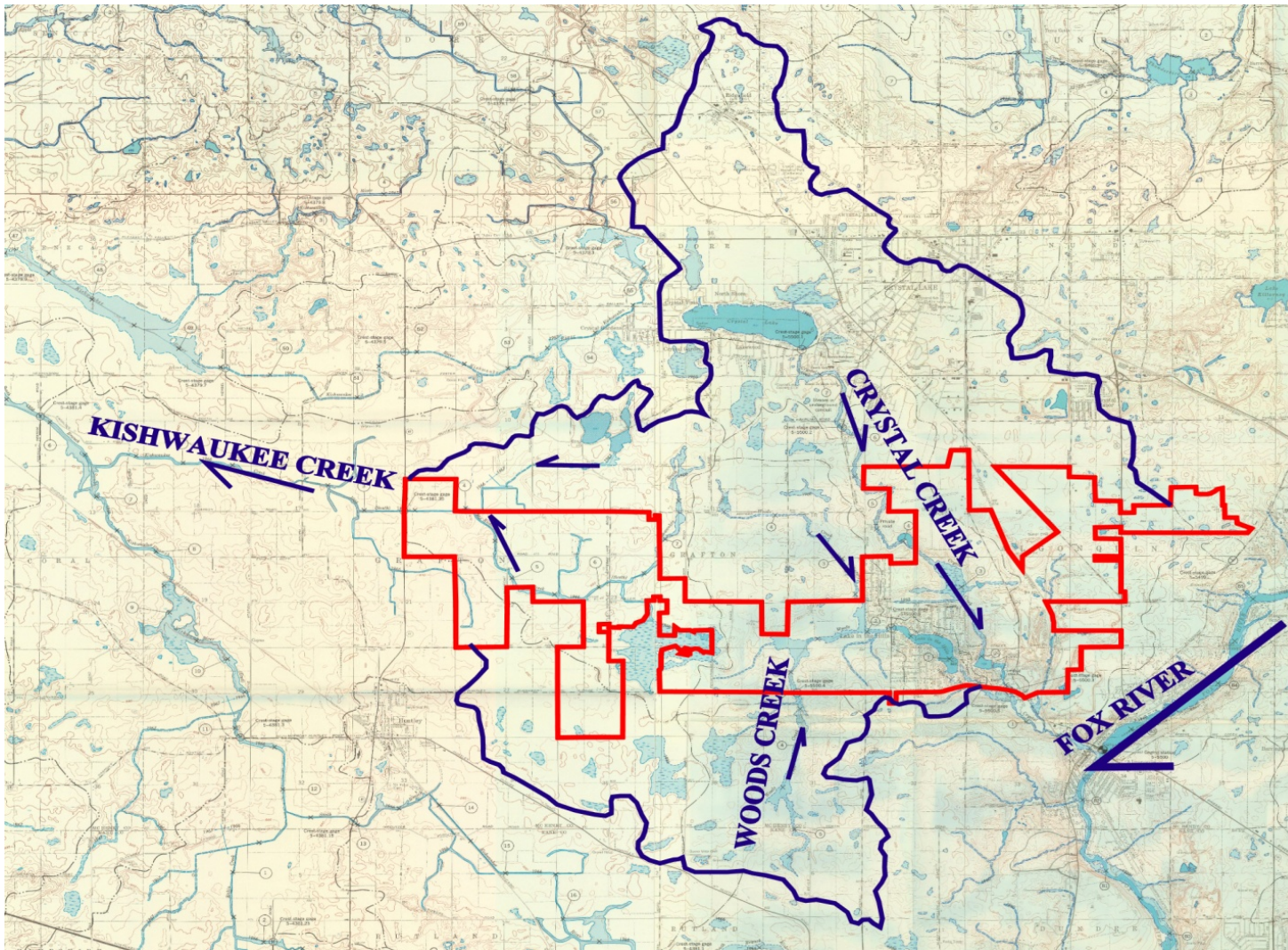




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450 Stormwater Management - Watershed





450 Stormwater Management – creditable items

Stormwater Regulation (Detention)

- Minimum Regulated Development (all, all except SFR, all except 20,000 sf. new imp.)
- Design storm (100 year, 10 year or other)
- Public Maintenance (ownership, access, annual inspection)

Stormwater Maintenance Master Plan (standards, manage future flows, 5yr updates

- 100yr
- Manage volumes
- 5 Day storm durations
- Open Space Preservation
- Protect channels from development
- Use of Naturalized Stabilization



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450 Stormwater Management – creditable items

Freeboard from local drainage

- Relative to road crown or lowest adjacent grade
- Measured to lowest floor or lowest opening
- Site plan requirements
- Positive drainage from buildings

Erosion Control (based on minimum size of development where regulation applies)

Water Quality (BMP) requirements

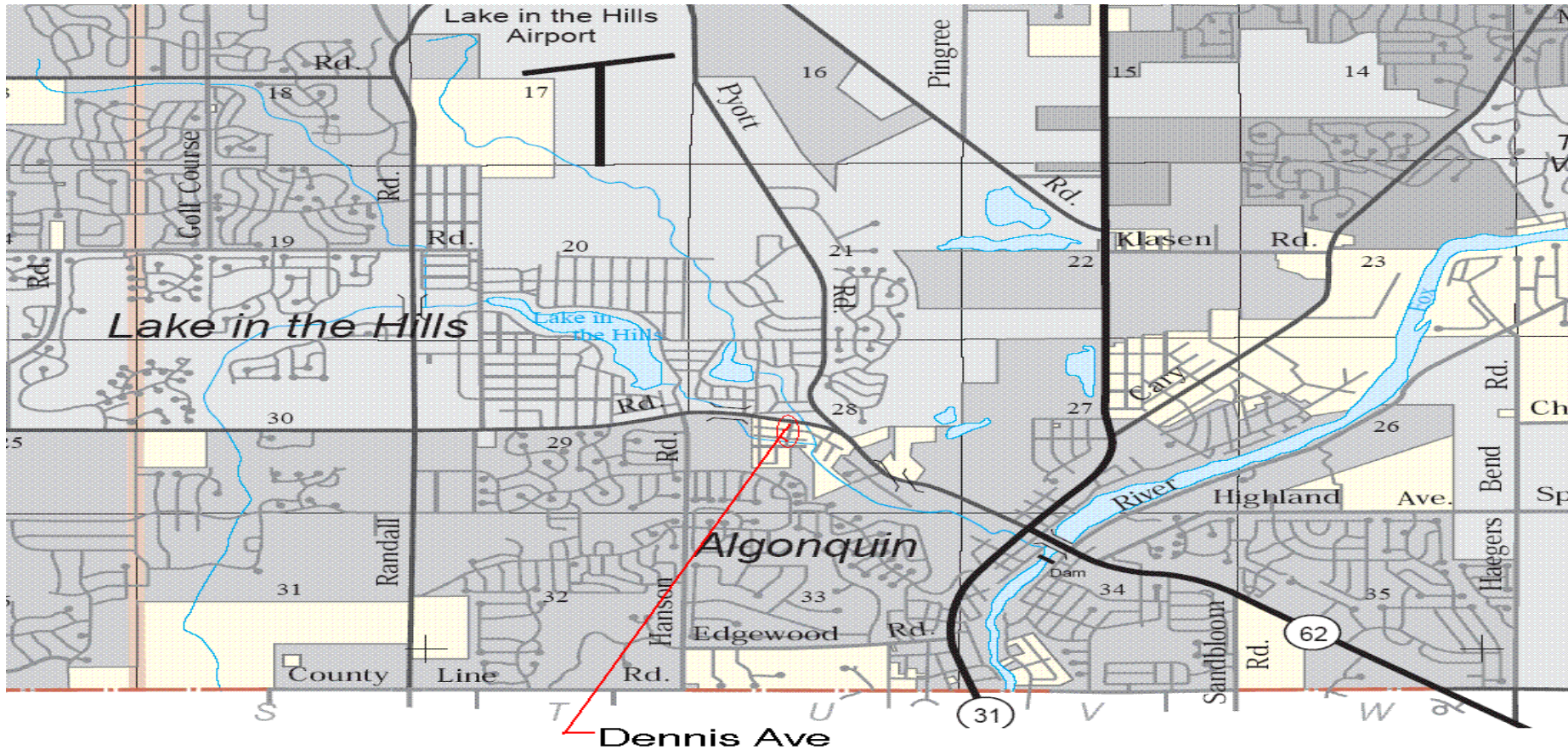


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Repetitive Loss Examples – Property outside of village



Excerpt from County Base Map



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Repetitive Loss Examples – Property on High Ground





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Repetitive Loss Area

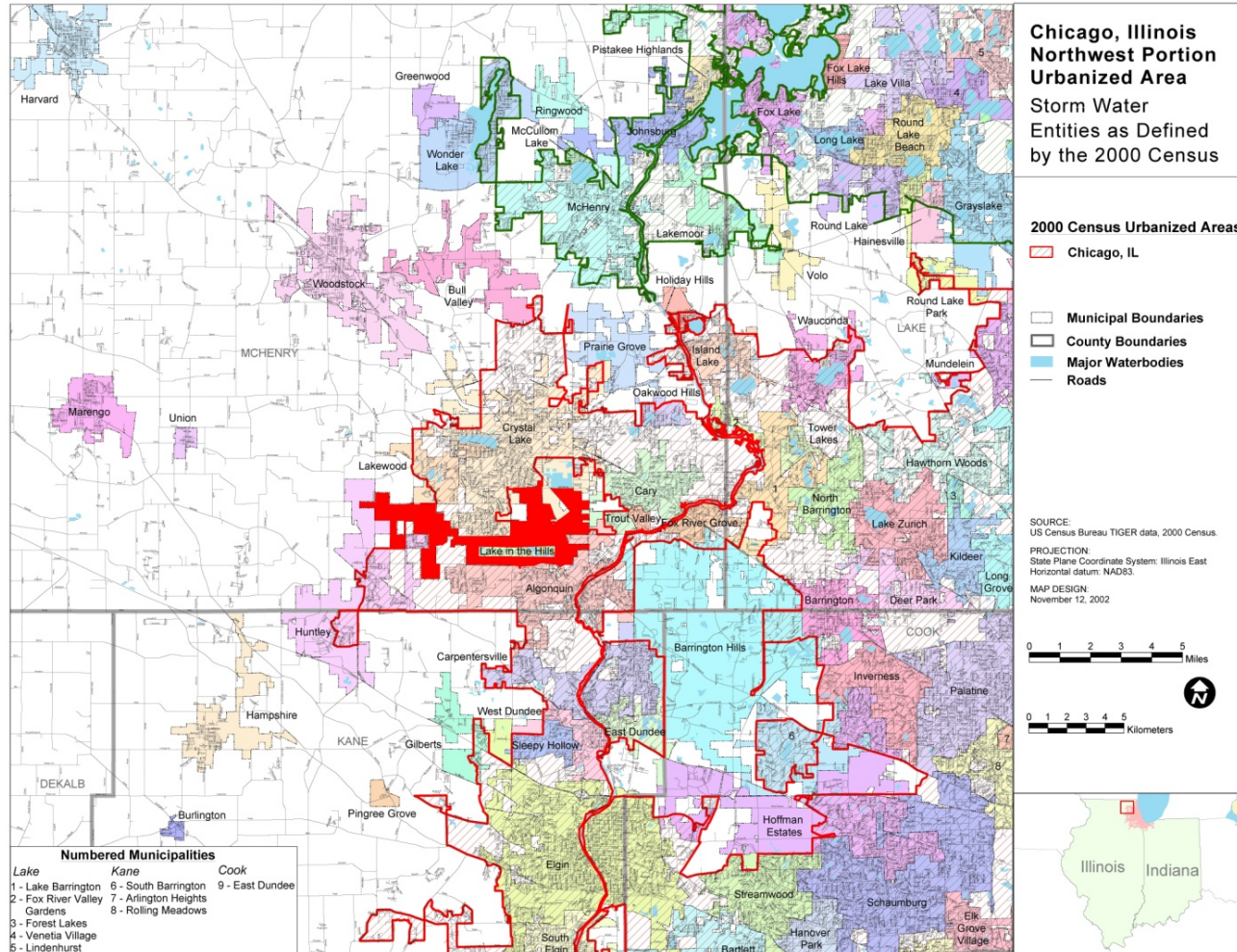




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Lake in the Hills



2006 – Rating 10

2008 – Rating 7

1677 points

15% premium discount

Questions?