FEMA

Discovery Meeting

FEMA Region X

RiskMAP

Increasing Resilience Together

Introductions

Meeting Objectives

- **Provide an overview of Risk MAP and Discovery**
- **Present known and best available data**
- **Discuss local flood risk and management**
- **Discuss the responsibility for communicating about risk to the public**
- **Discuss mitigation planning and projects**
- **Identify the most high-risk areas in the watershed**

Overview: Risk MAP

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- Collaborative approach
- Goals: quality data, public awareness, action that reduces risk
- Watershed-oriented

Focus on up-front coordination

- Discovery is mandatory
- Appendix I includes no templates and is currently draft

The Vision for Risk MAP

Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property

The Tools for Risk MAP

Along with training and technical support, Risk MAP provides updated regulatory products and non regulatory products that can be used by the community to reduce risk.

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Non-Regulatory Tools

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Changes Since Last FIRM Dataset

RiskMAP

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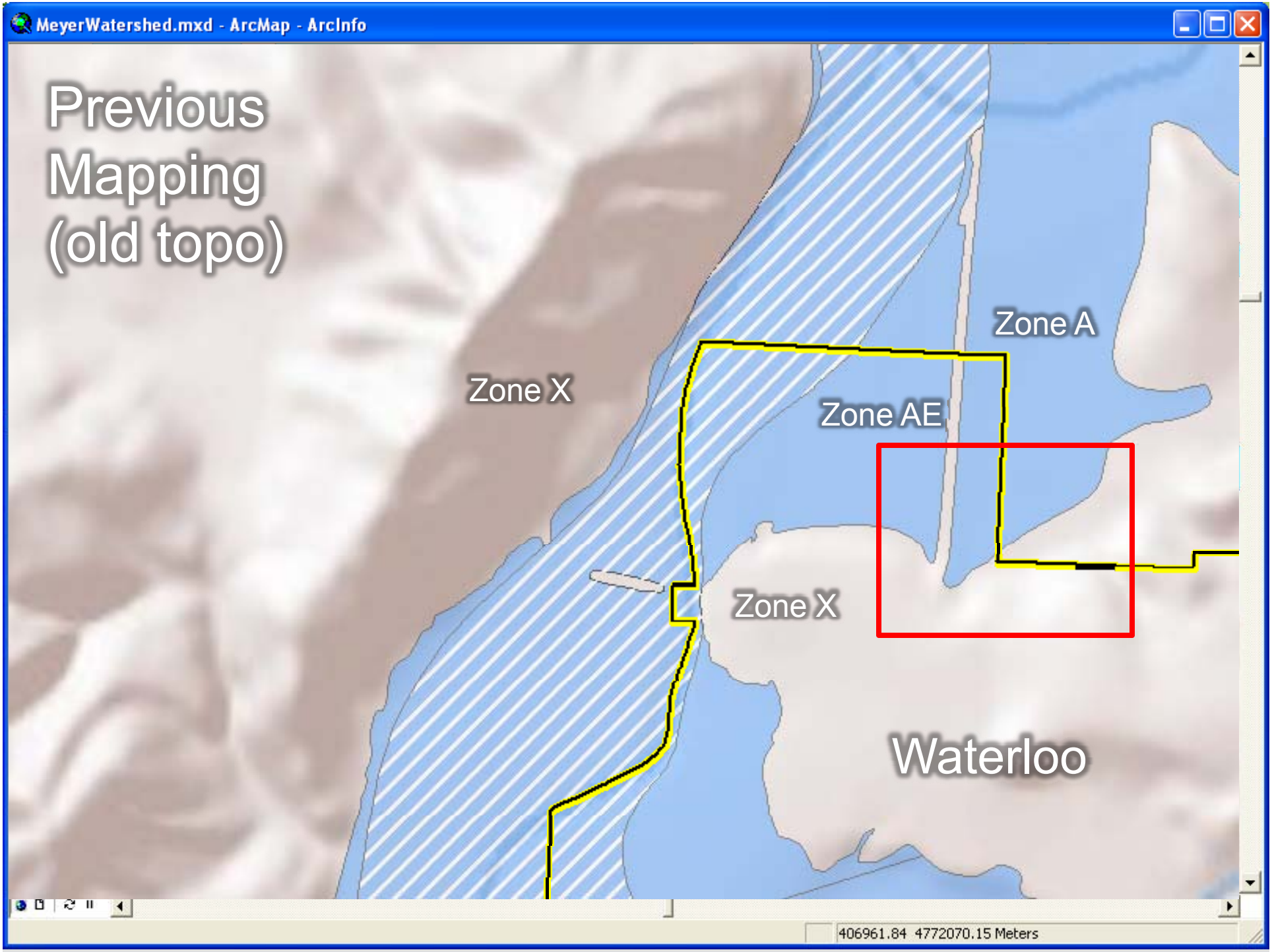
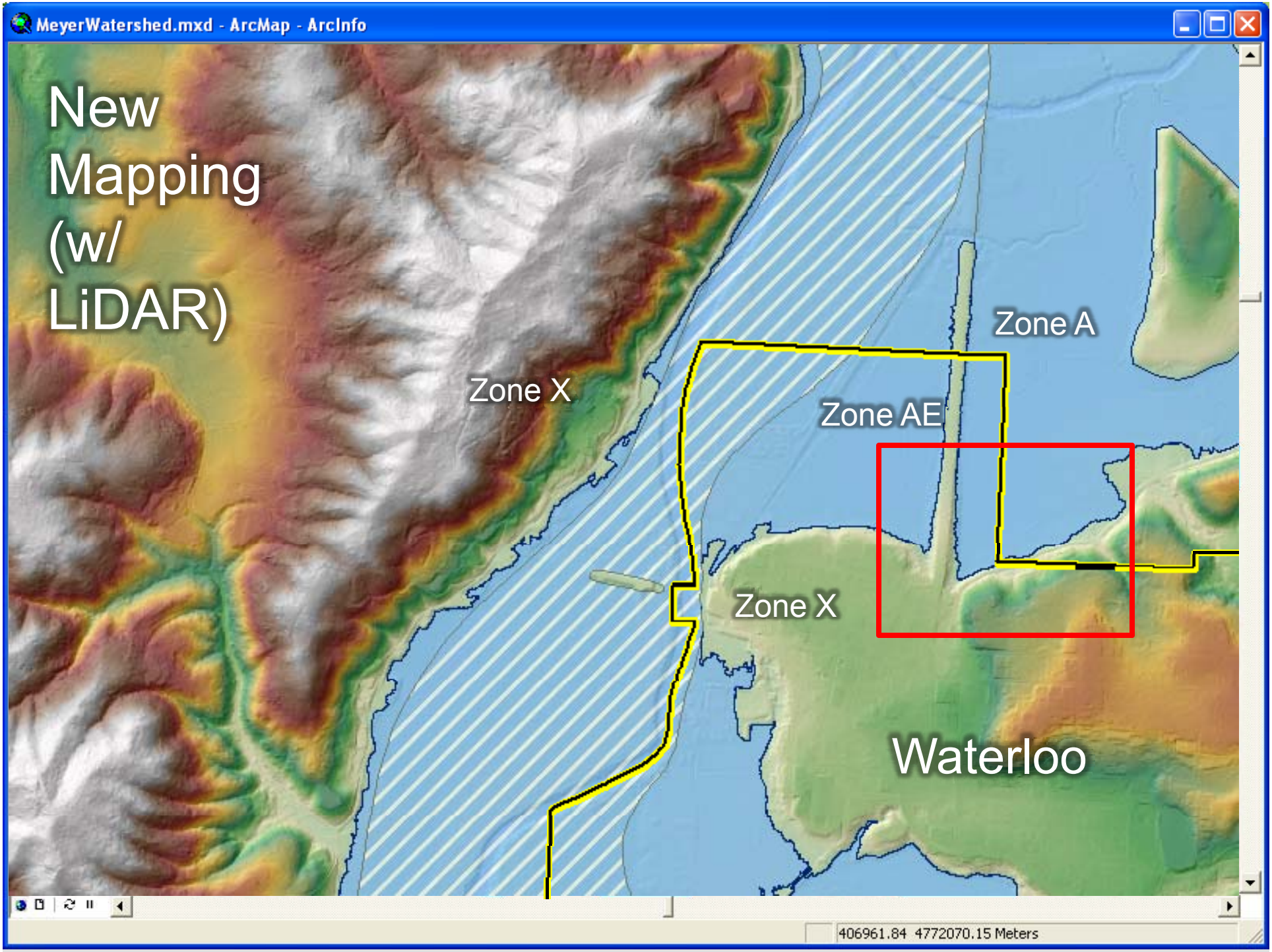
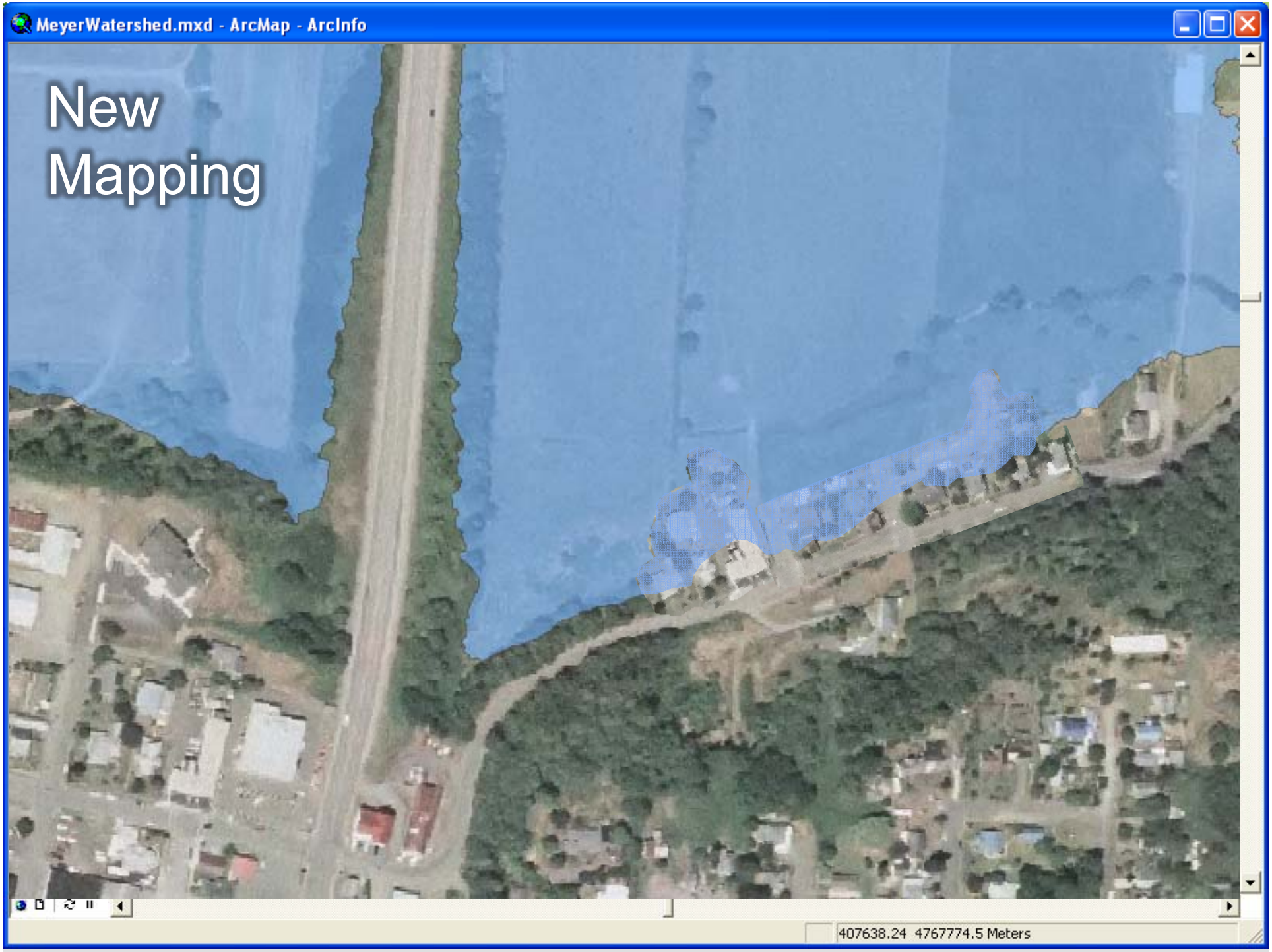
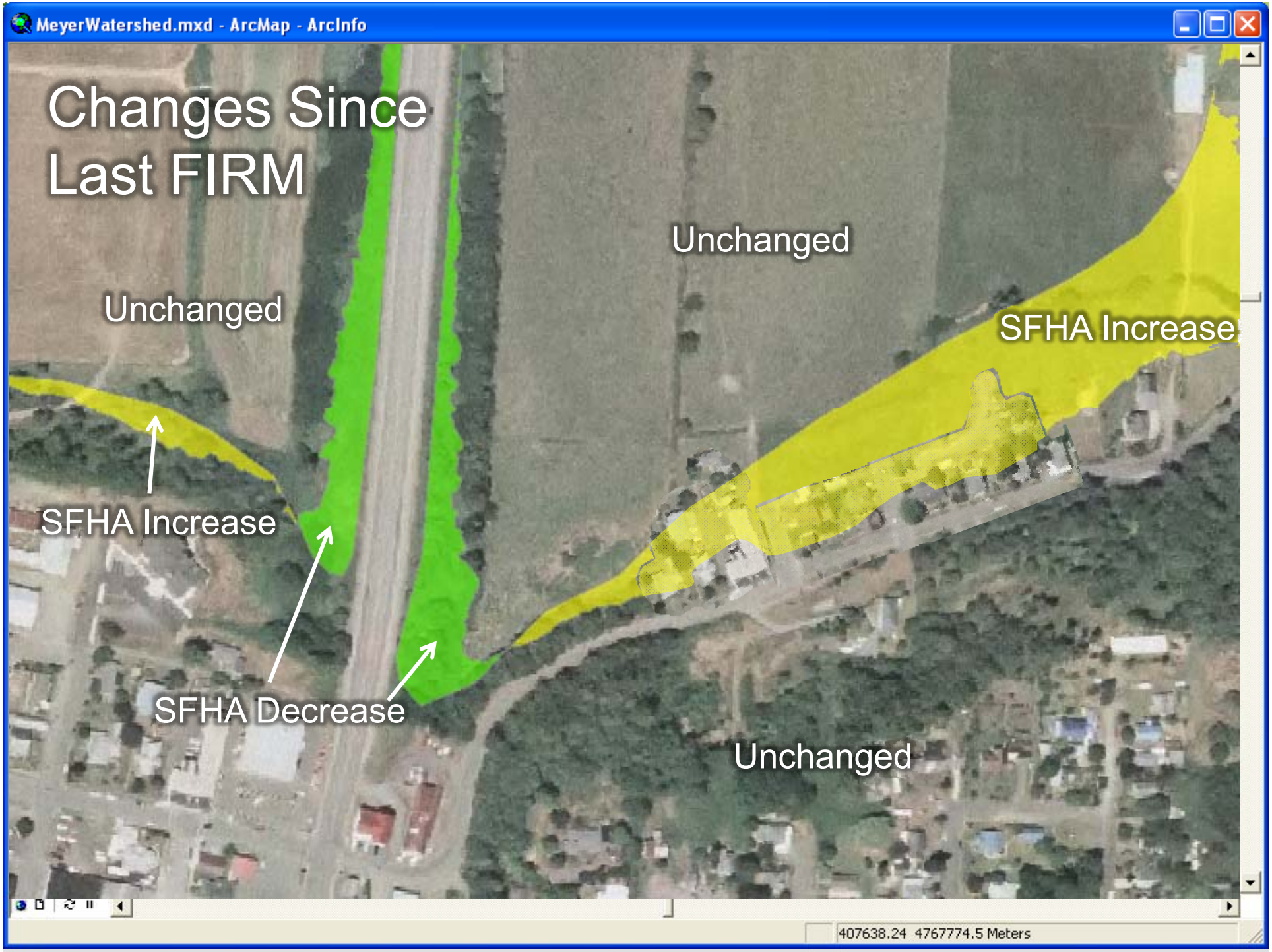
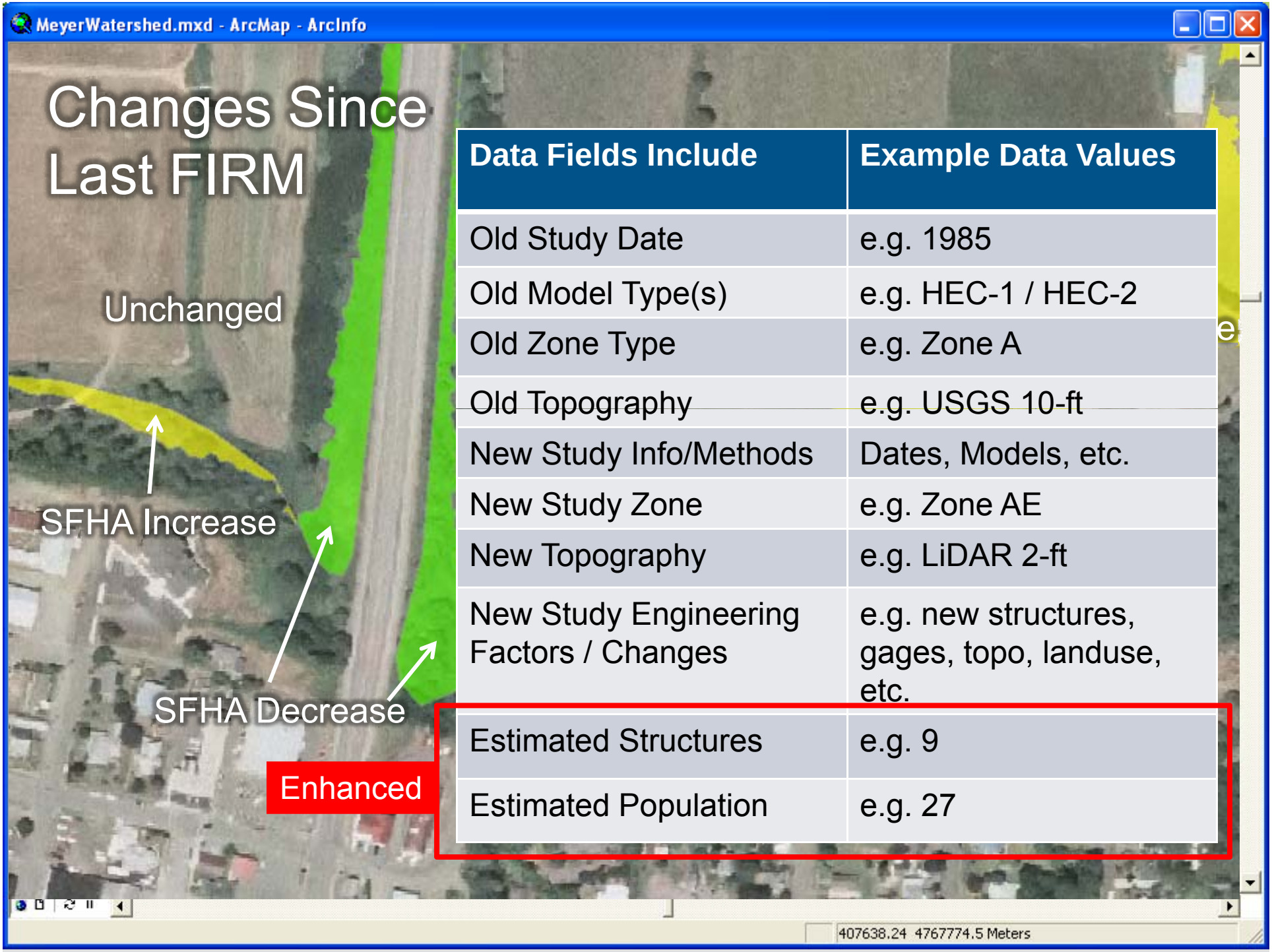

MeyerWatershed.mxd - ArcMap - ArcInfo
Previous Mapping (old topo)
Zone A
Zone X
Zone AE
Zone X
Waterloo
406961.84 4772070.15 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
New Mapping (w/ LiDAR)
Zone X
Zone A
Zone AE
Zone X
Waterloo
406961.84 4772070.15 Meters

MeyerWatershed.mxd - ArcMap - ArcInfo
Previous Mapping
407638.24 4767774.5 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
New
Mapping
407638.24 4767774.5 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
Changes Since Last FIRM
Unchanged
Unchanged
SFHA Increase
SFHA Increase
SFHA Decrease
Unchanged
407638.24 4767774.5 Meters



Data Fields Include	Example Data Values
Old Study Date	e.g. 1985
Old Model Type(s)	e.g. HEC-1 / HEC-2
Old Zone Type	e.g. Zone A
Old Topography	e.g. USGS 10-ft
New Study Info/Methods	Dates, Models, etc.
New Study Zone	e.g. Zone AE
New Topography	e.g. LiDAR 2-ft
New Study Engineering Factors / Changes	e.g. new structures, gages, topo, landuse, etc.
Estimated Structures	e.g. 9
Estimated Population	e.g. 27

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Flood Depth & Analysis Grids

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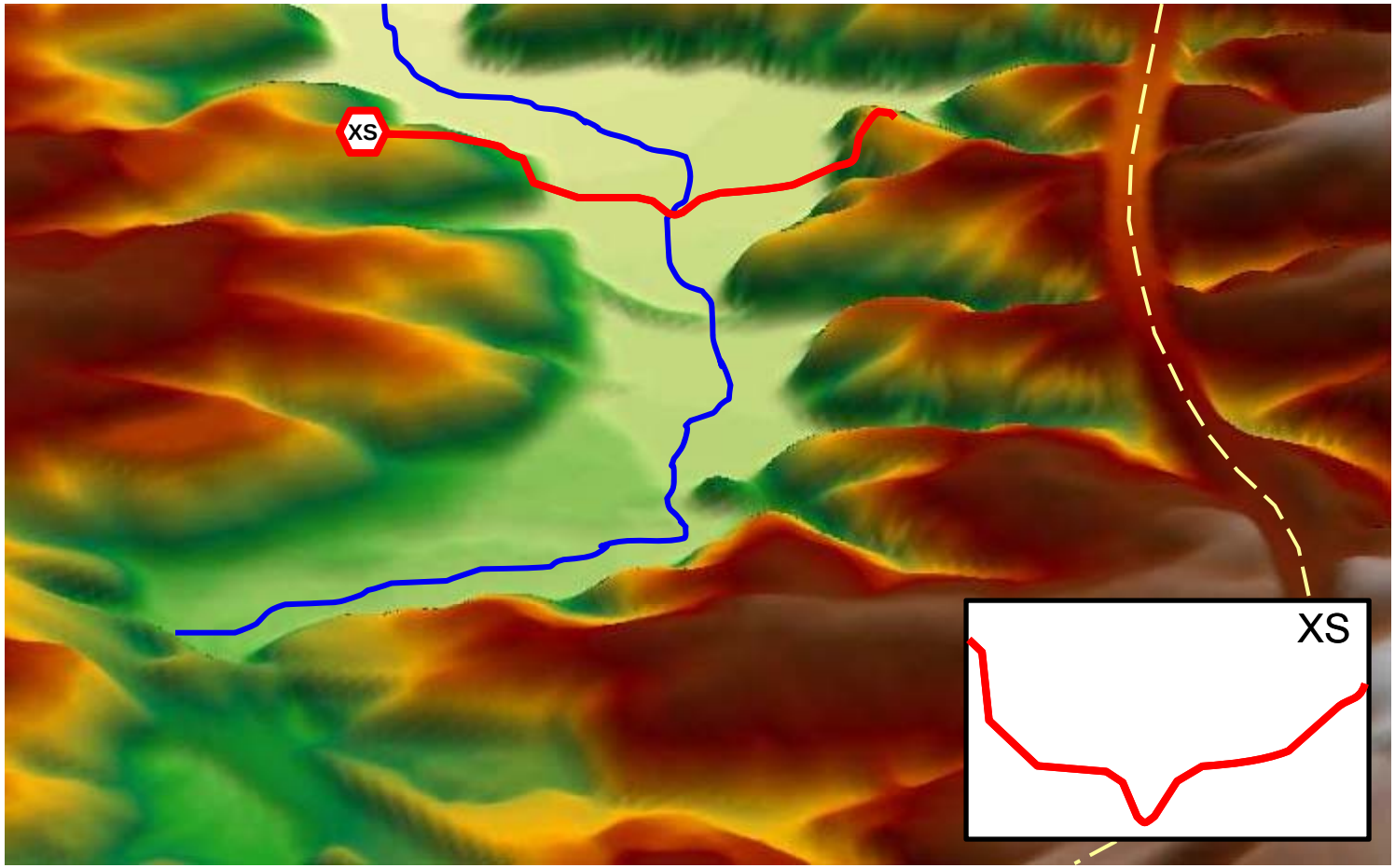
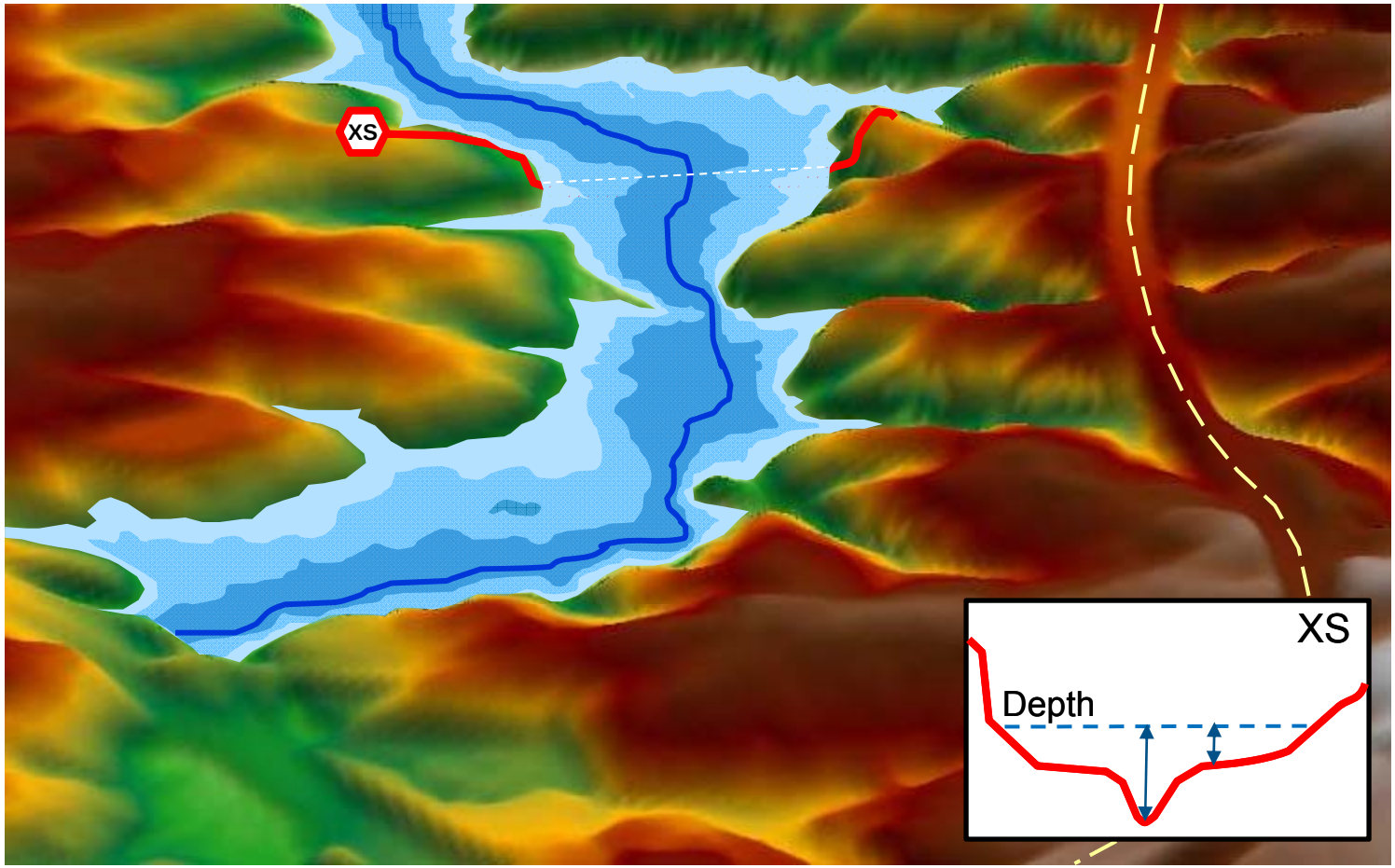
Flood Depth Grids

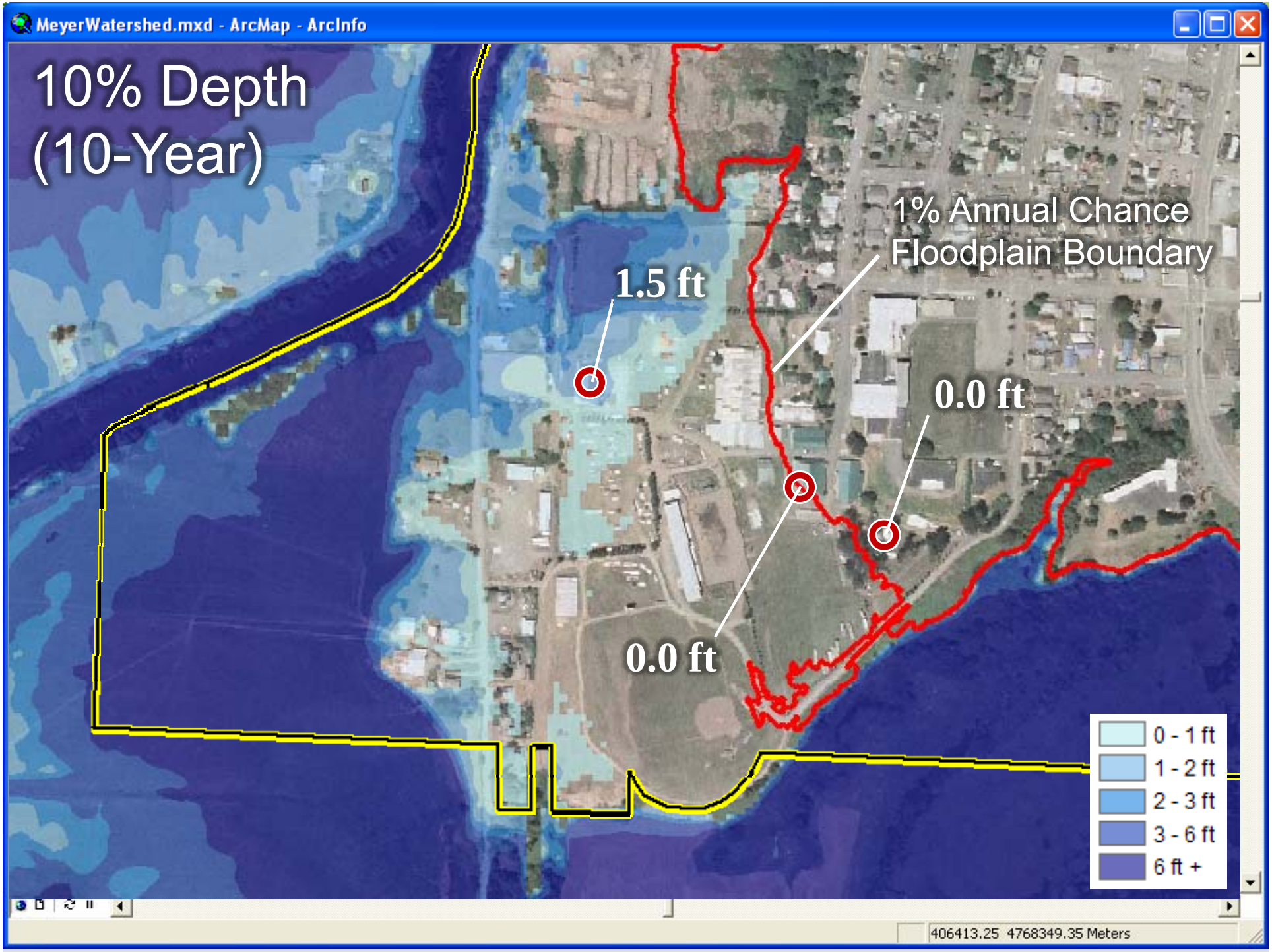
- **Flood Depth Grid Creation Process**

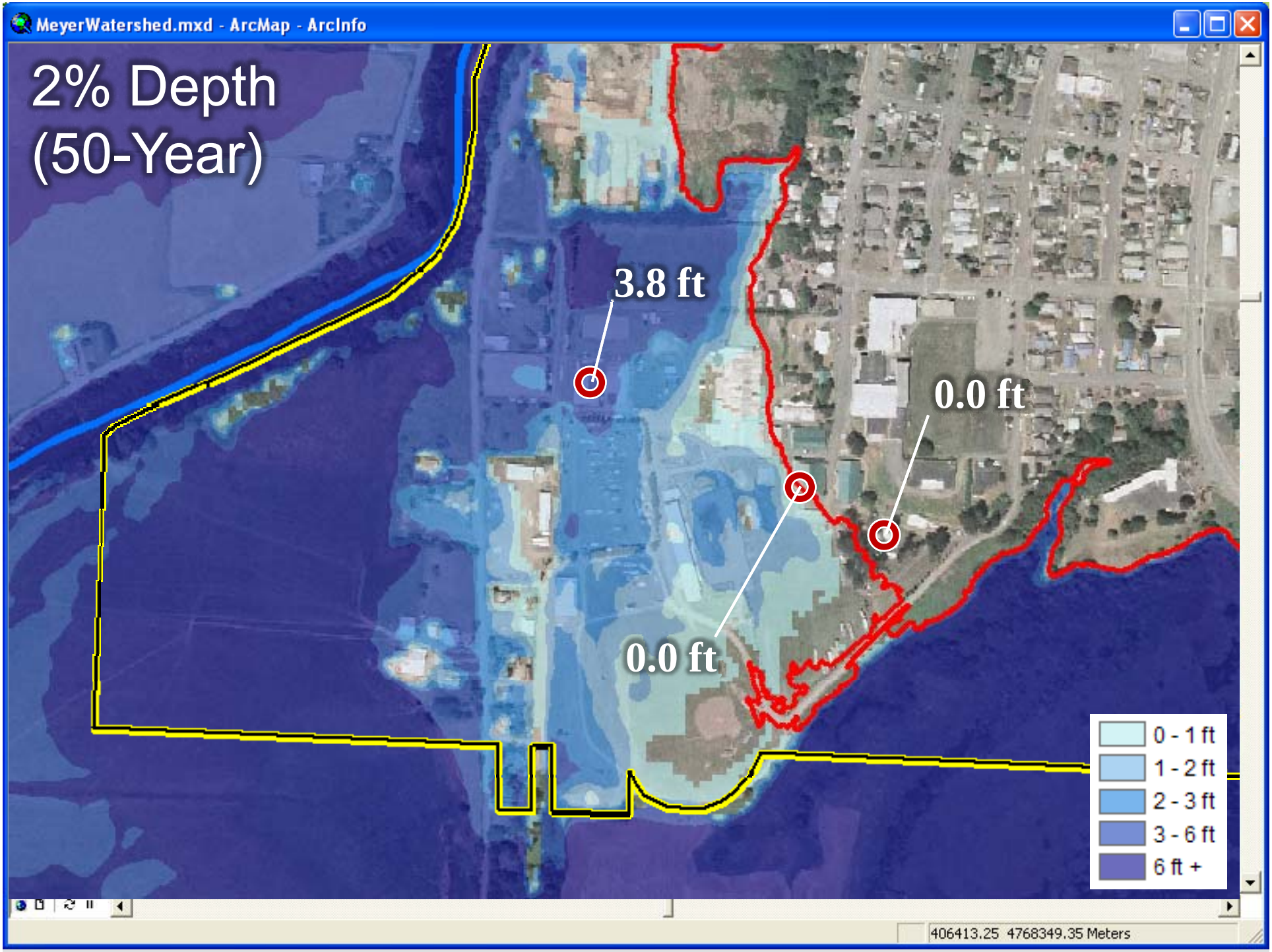


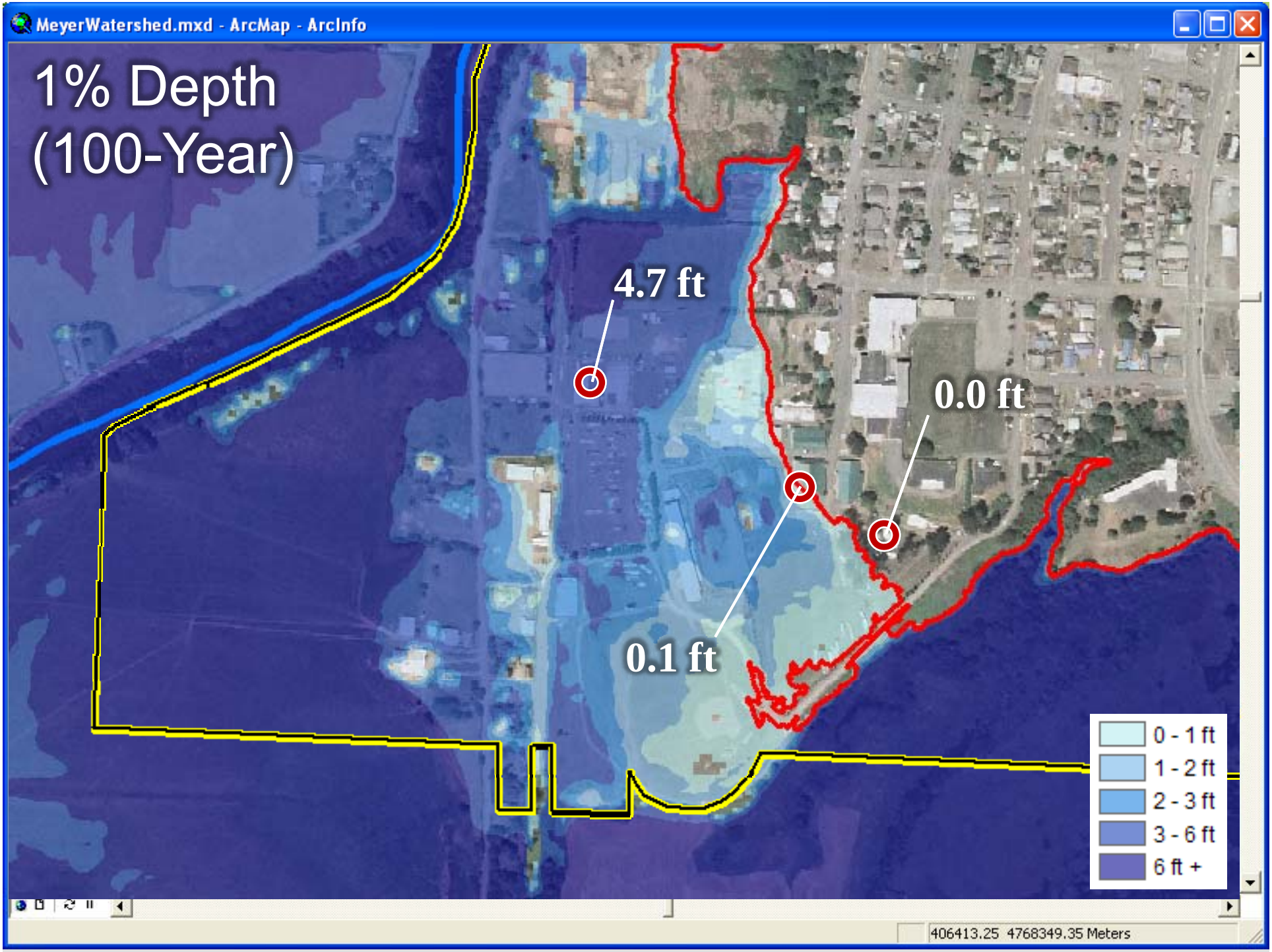
Flood Depth Grids

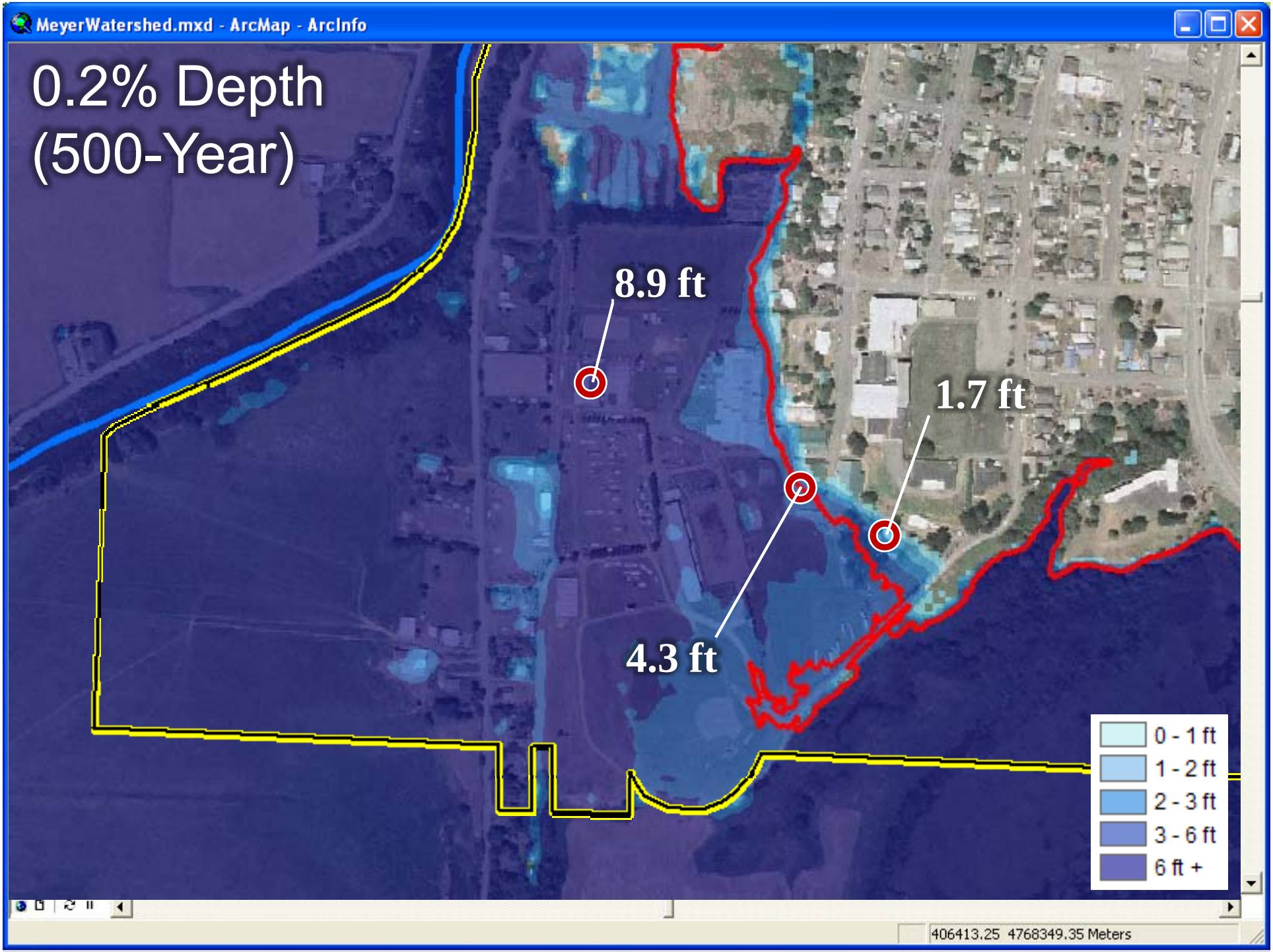
- **Depth Grid Calculated as Difference between WSE and Ground**

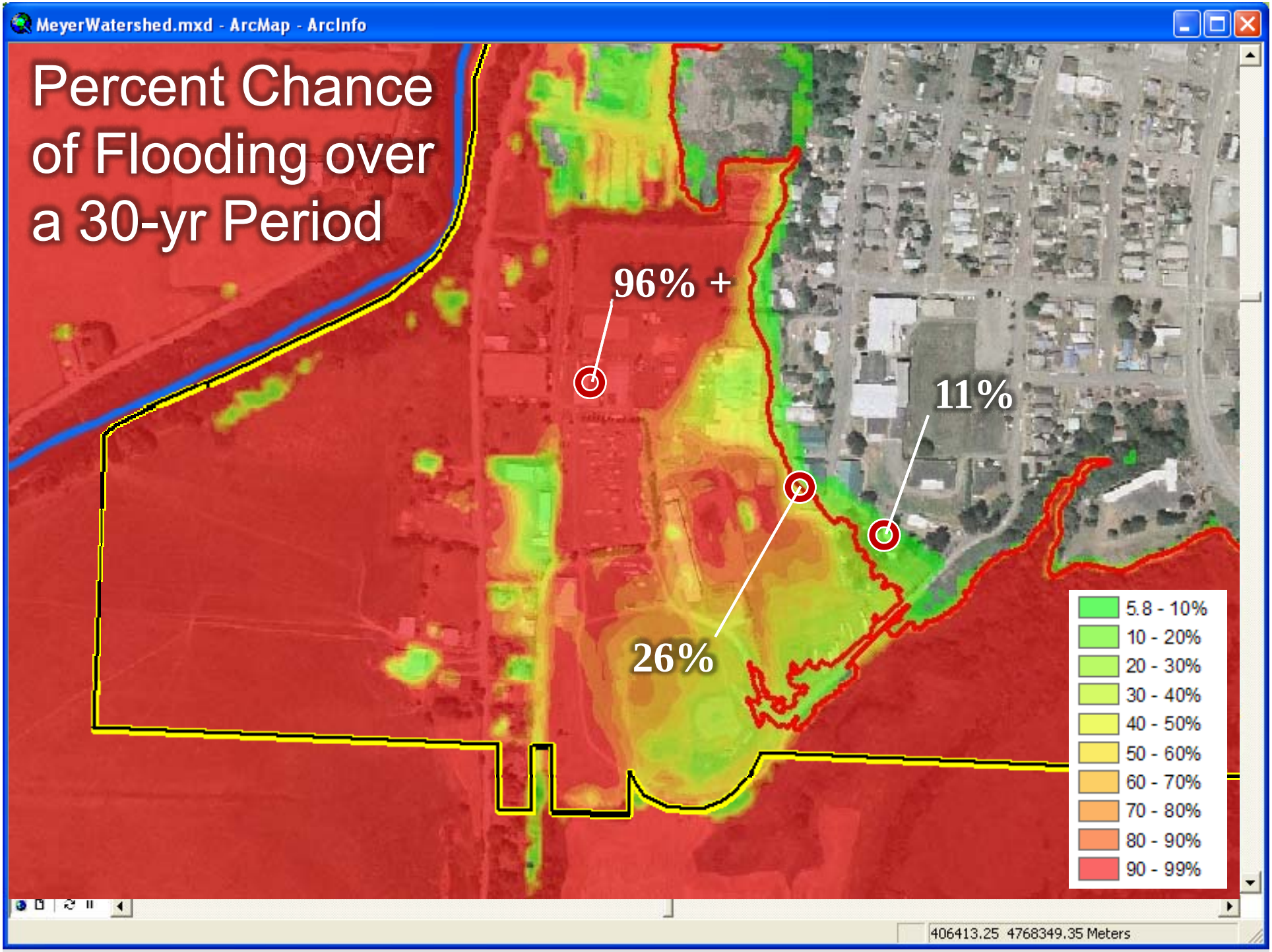



MeyerWatershed.mxd - ArcMap - ArcInfo
10% Depth
(10-Year)
1% Annual Chance
Floodplain Boundary
1.5 ft
0.0 ft
0.0 ft
0 - 1 ft
1 - 2 ft
2 - 3 ft
3 - 6 ft
6 ft +
406413.25 4768349.35 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
2% Depth
(50-Year)
3.8 ft
0.0 ft
0.0 ft
0 - 1 ft
1 - 2 ft
2 - 3 ft
3 - 6 ft
6 ft +
406413.25 4768349.35 Meters

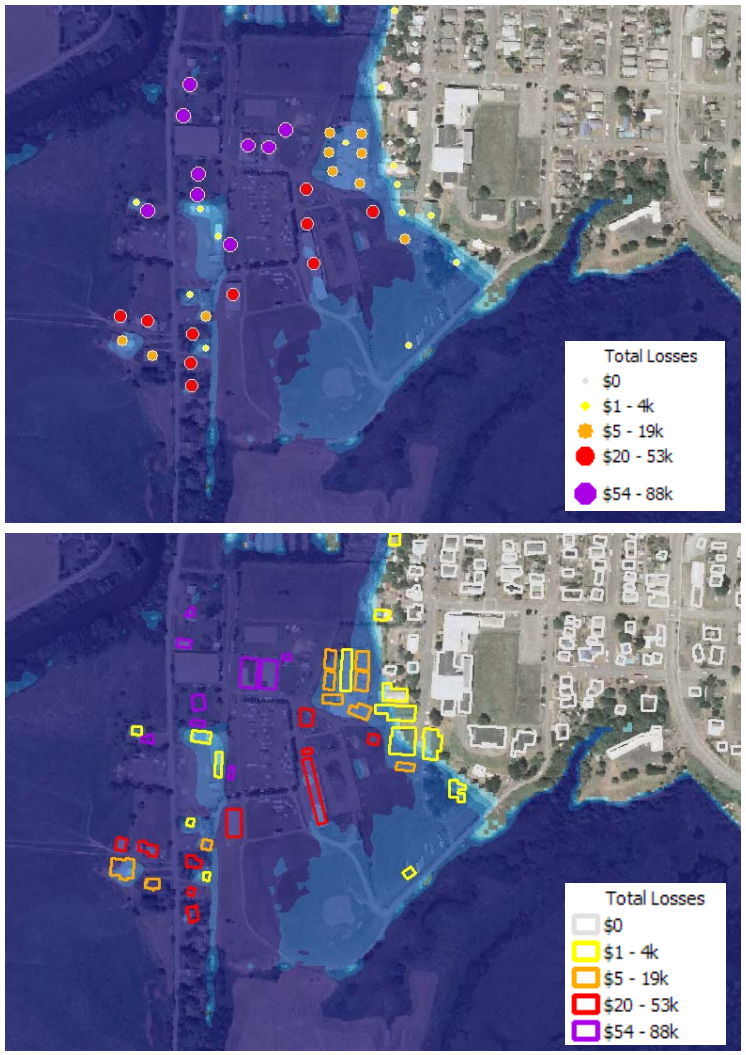

MeyerWatershed.mxd - ArcMap - ArcInfo
1% Depth
(100-Year)
4.7 ft
0.0 ft
0.1 ft
0 - 1 ft
1 - 2 ft
2 - 3 ft
3 - 6 ft
6 ft +
406413.25 4768349.35 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
0.2% Depth
(500-Year)
8.9 ft
1.7 ft
4.3 ft
0 - 1 ft
1 - 2 ft
2 - 3 ft
3 - 6 ft
6 ft +
406413.25 4768349.35 Meters


MeyerWatershed.mxd - ArcMap - ArcInfo
Percent Chance of Flooding over a 30-yr Period
96% +
11%
26%
5.8 - 10%
10 - 20%
20 - 30%
30 - 40%
40 - 50%
50 - 60%
60 - 70%
70 - 80%
80 - 90%
90 - 99%
406413.25 4768349.35 Meters

Enhanced Risk Assessment Analyses

- **Enhancements could include:**
  - Risk Assessments at site-specific locations
  - Incorporation of locally-provided inventory data (first-floor elevations and/or parcel data)
  - Additional sources of flood depth grids
  - Supplemental HAZUS analyses or other types of analyses



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Flood Risk Products

- **Flood Risk Database**
- **Flood Risk Report**
- **Flood Risk Map**

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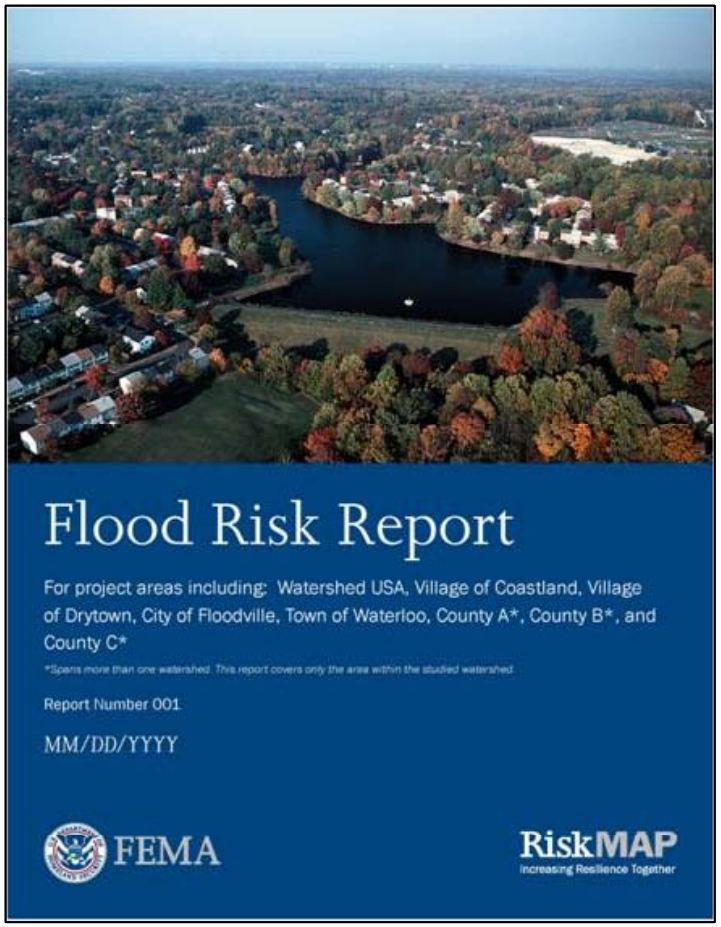
Flood Risk Report Content Overview



- **Background:**
  - Purpose, Methods
  - Risk Reduction Practices
- **Project Results**
  - Changes Since Last FIRM
  - Depth & Analysis Grids
  - Flood Risk Assessment
  - (enhanced analyses)
    - e.g. Areas of Mitigation Interest
- **Summarized by Locations**
  - Communities and Watersheds

Discovery

Discovery is the process of data mining, collection, and analysis with the goal of initiating a flood risk or mitigation project and risk discussions with the watershed

When:

- After an area/watershed has been prioritized
- Before a Risk MAP project is scoped or funded

Required for new and updated…

- Flood studies
- Flood risk assessments
- Mitigation planning technical assistance projects

Why:

- Increases visibility of flood risk information, education, involvement
- Helps inform whether a Risk MAP project will occur in the watershed

Discovery Discussions

- **View collected spatial data across watershed**
- **Discuss Areas of Concern: Identify Risk MAP Needs**
  - Need new flood study data?
  - Need support with mitigation planning?
  - Need mitigation projects?
  - Need training on floodplain management?
  - Need support developing a flood risk outreach program?
  - What else can FEMA do to help your community become flood resilient?
- **Next step: FEMA to identify Risk MAP Projects**