

# Comprehensive Flood Protection



**CITY COMMISSION INFORMATIONAL  
MEETING  
AUGUST 20, 2012**

# Comprehensive Flood Protection

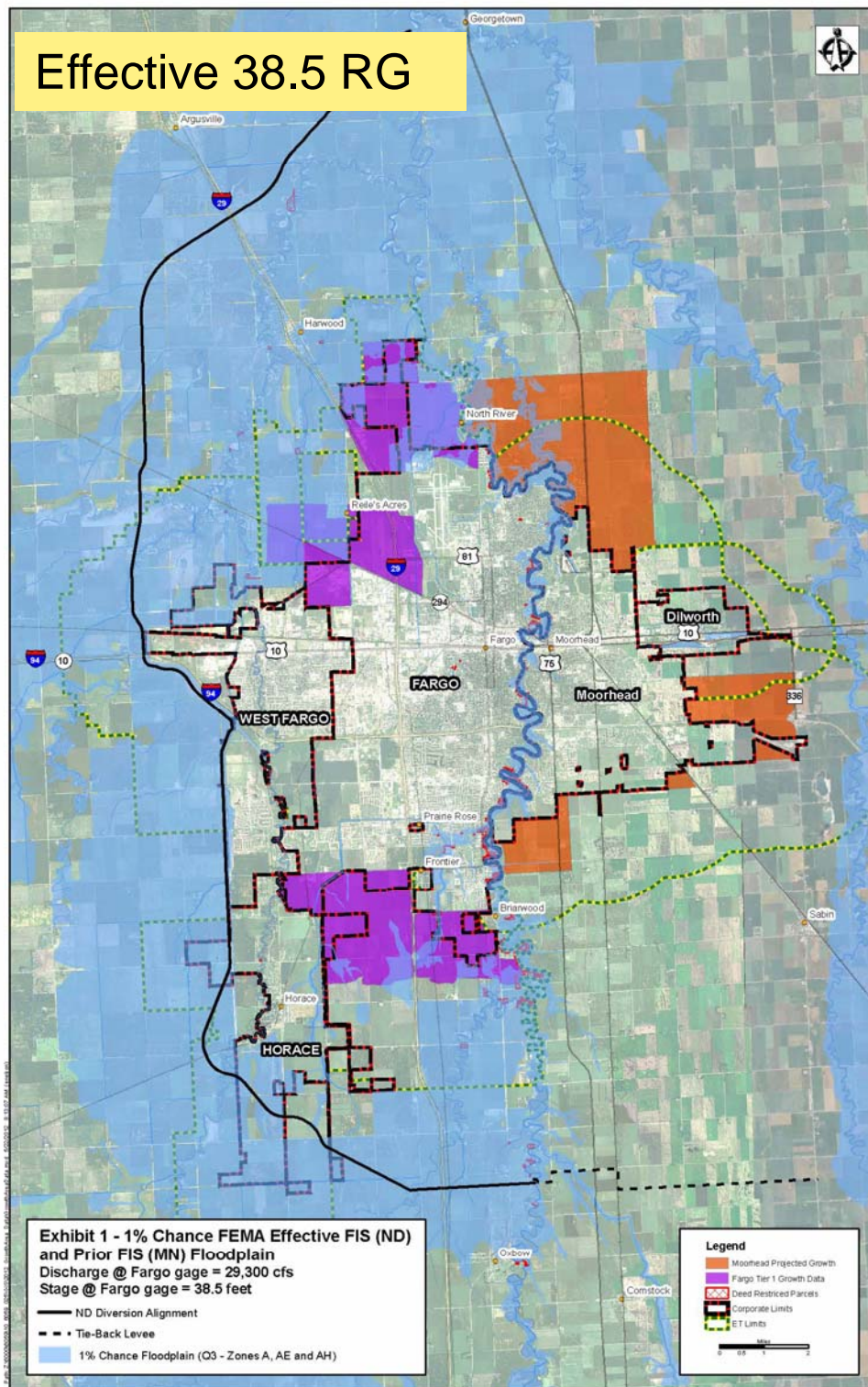


- **Current Floodplain**
  - 38.5 Feet River Gage (29,300 cfs)
  - 475 Impacted Structures
  - 19,700 Acres Impacted
- **Preliminary Floodplain**
  - 39.4 Feet River Gage (29,300 cfs)
  - Approx. 2,300 Impacted Structures
  - 27,600 Acres Impacted
- **Flood of Record**
  - 40.8 Feet River Gage
- **Future of the Floodplain**
  - USACE 41.1 River Gage (34,700 cfs)
  - Approx. 19,400 Impacted Structures
  - 36,430 Acres Impacted

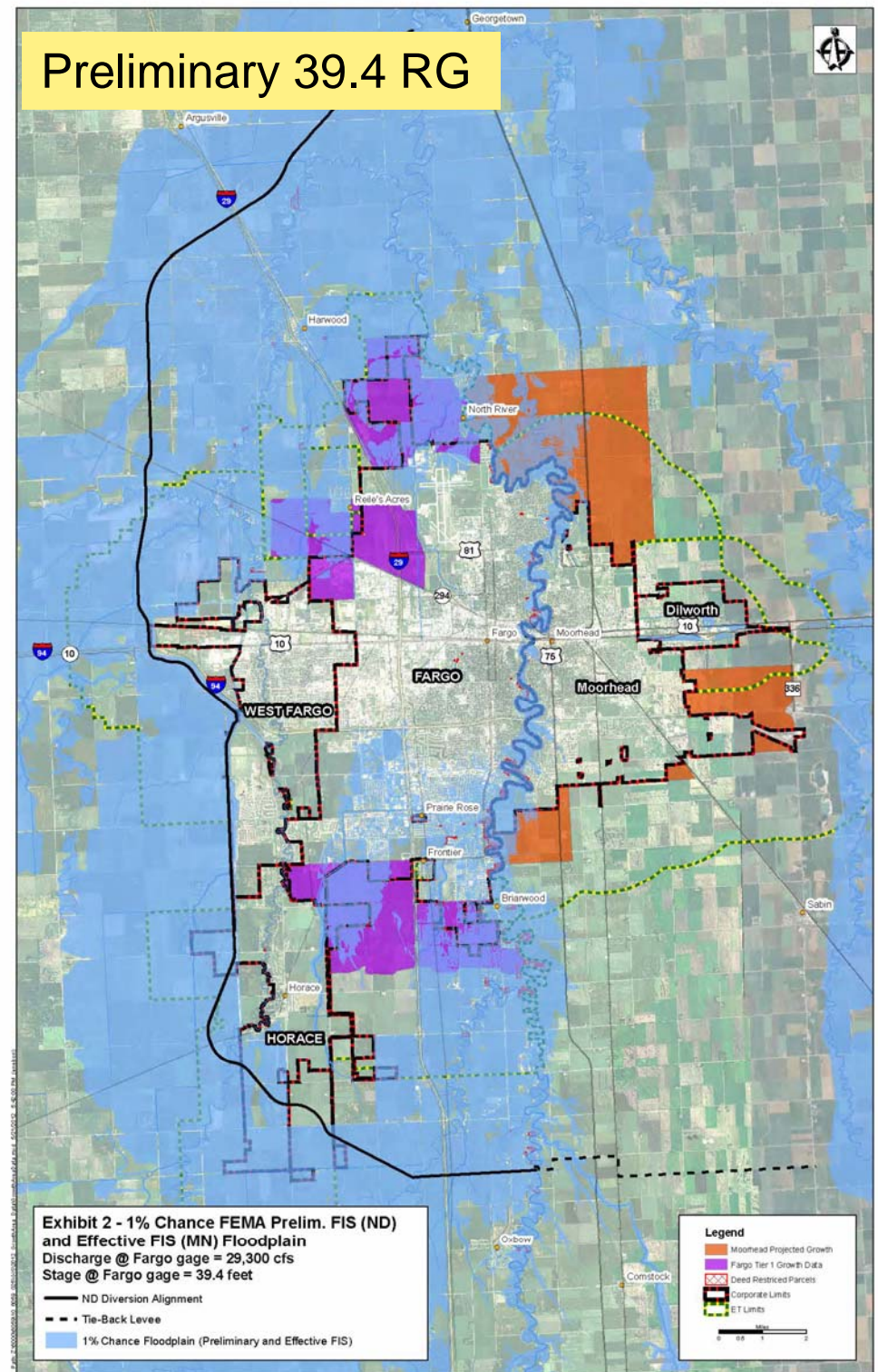




## Effective 38.5 RG

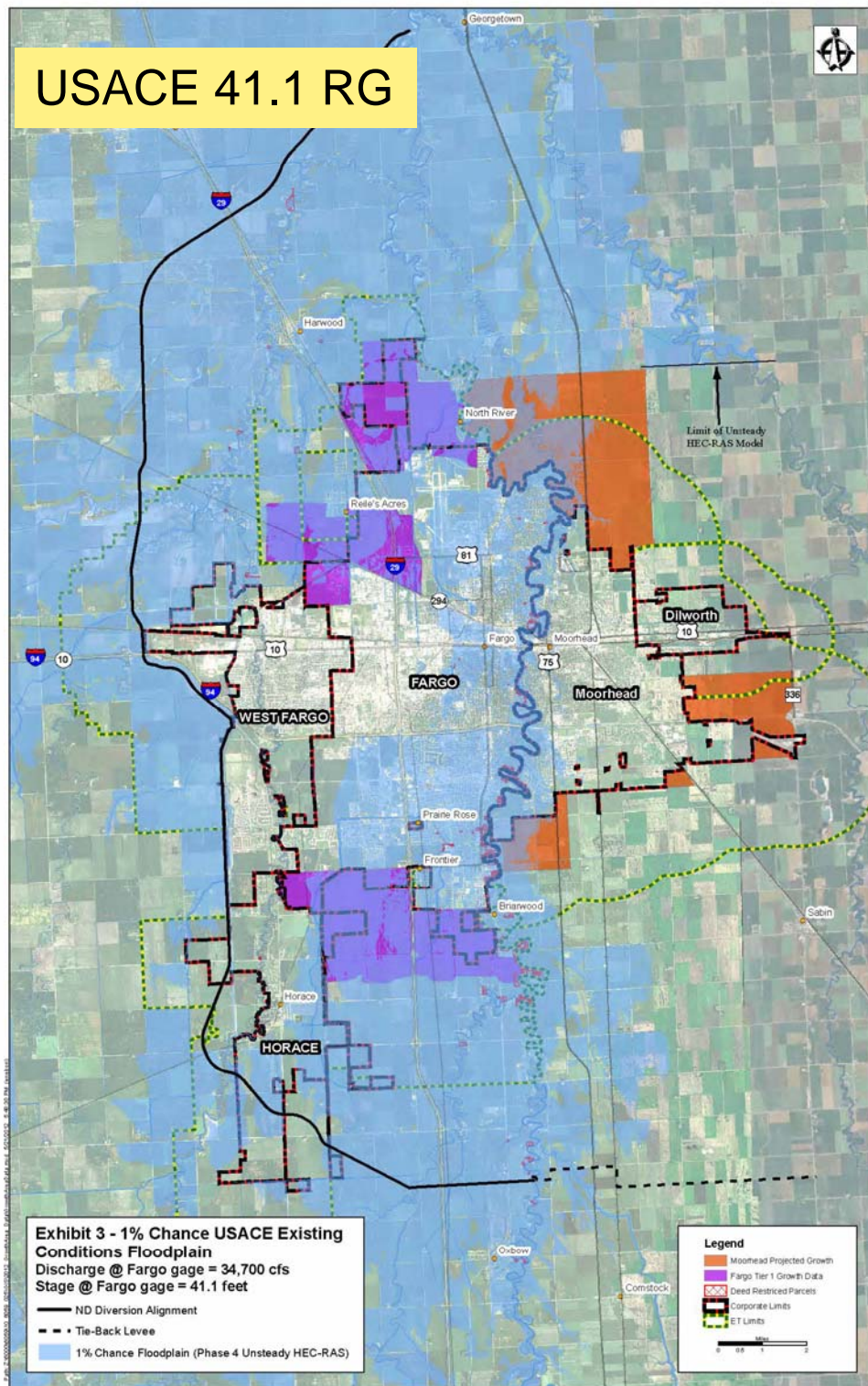


## Preliminary 39.4 RG

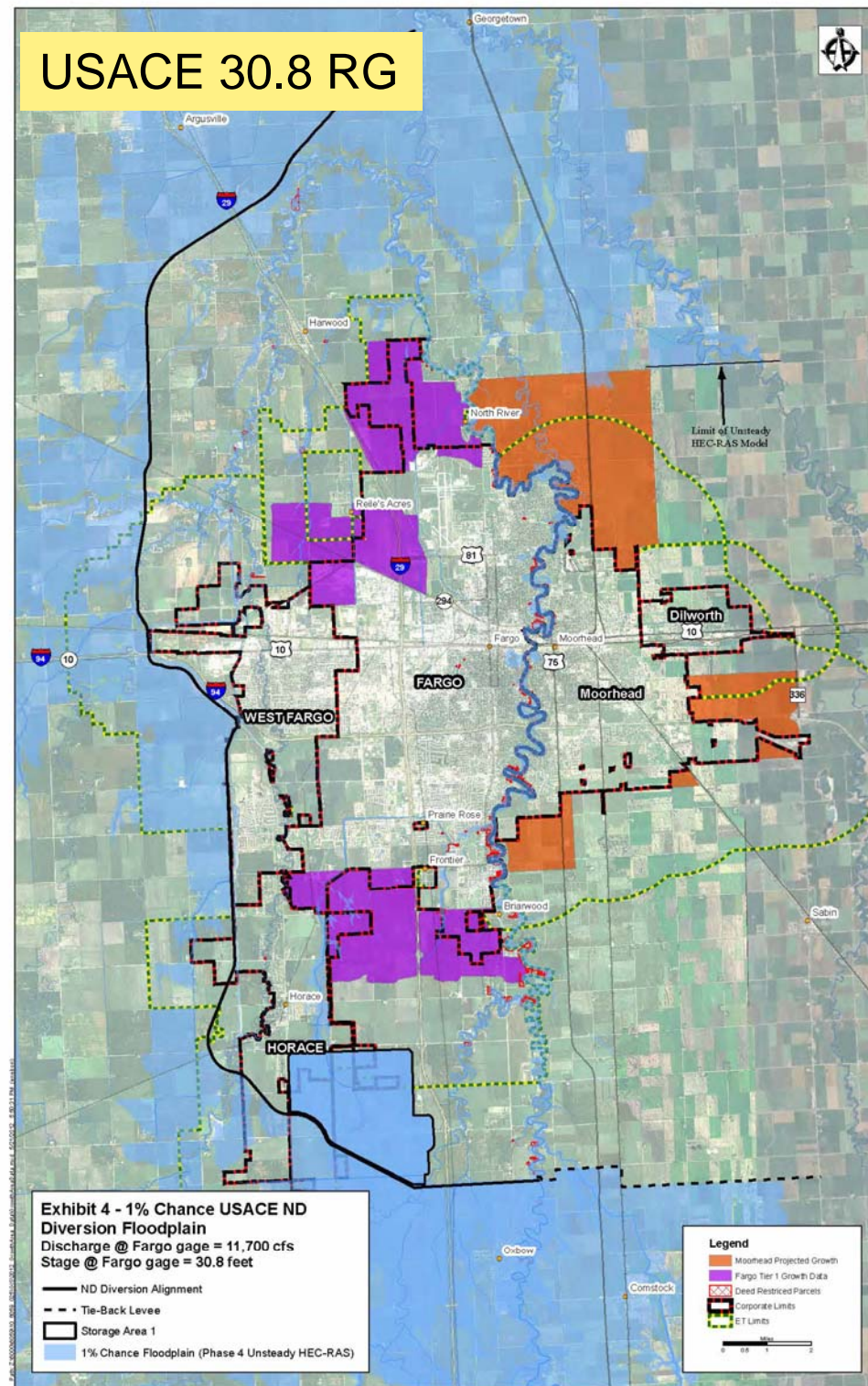




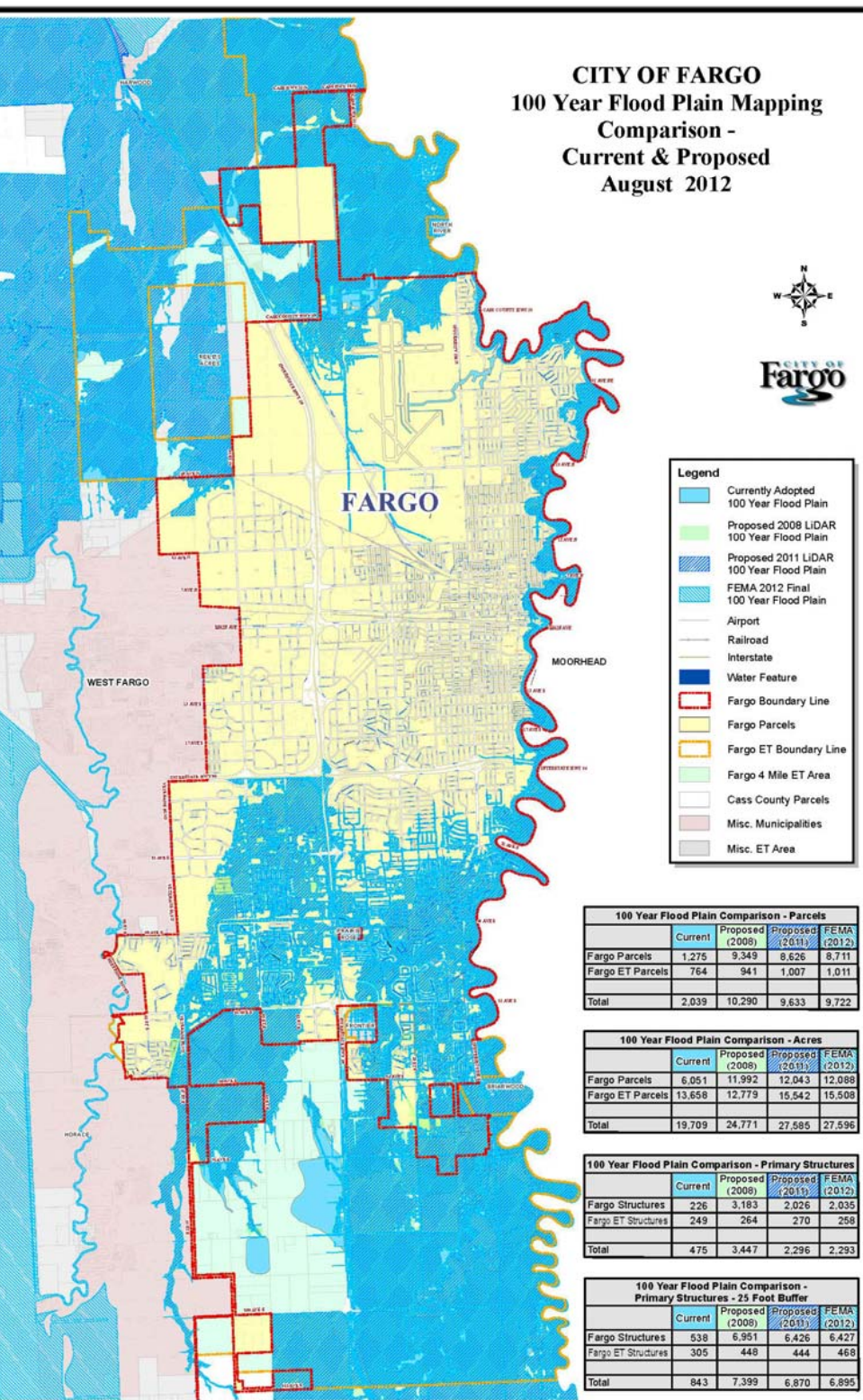
# USACE 41.1 RG



# USACE 30.8 RG







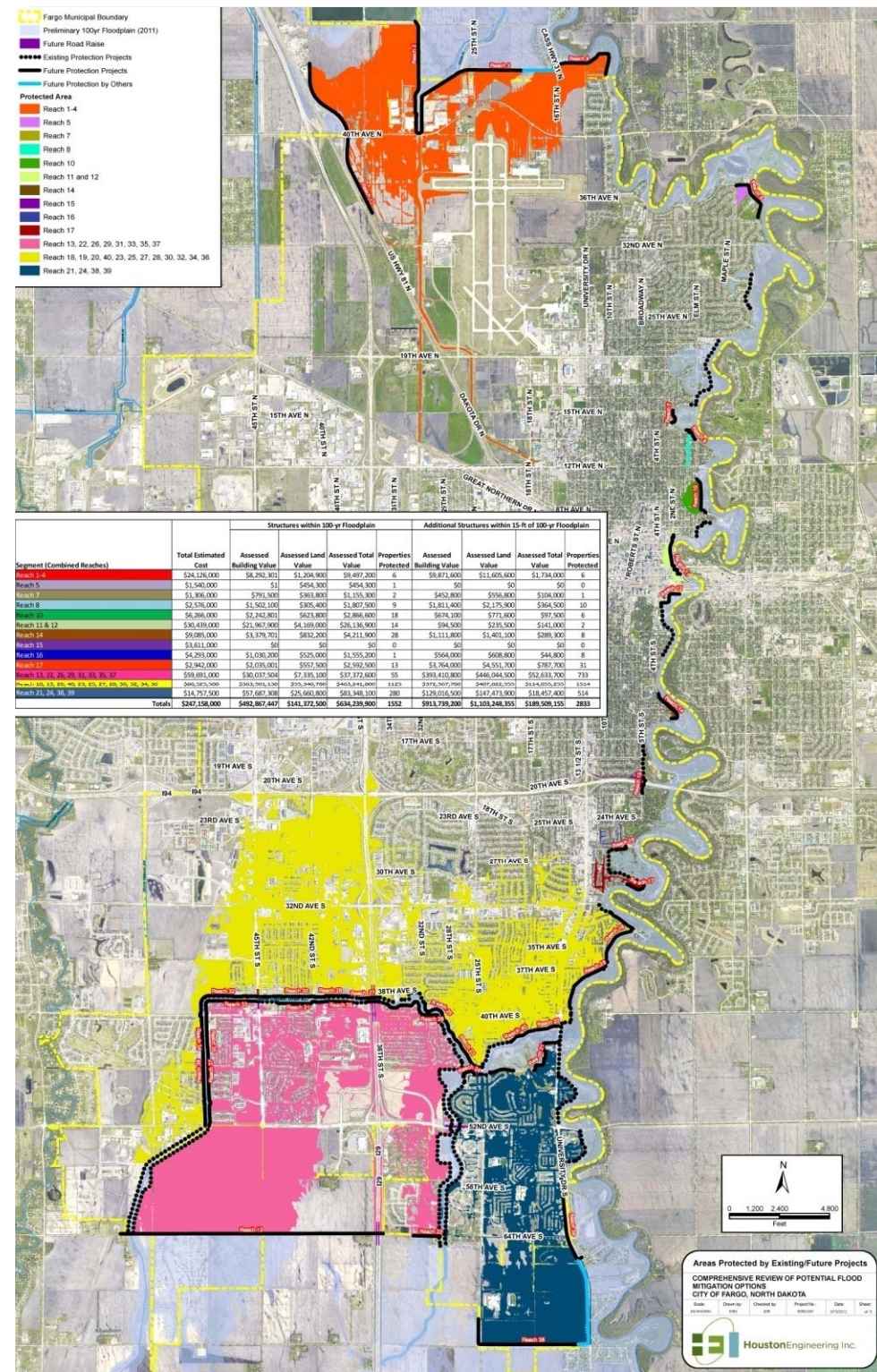
# Map Process

- Currently under review
  - Street Names, Jurisdictional Boundaries, Inundation Areas, etc.
- Anticipated Adoption Summer 2013
  - Newly mapped properties Eligible for a lower- cost Preferred Risk Policy (PRP) for two years from the map revision date.
  - Standard rate after two years (2016)



# Comprehensive Plan

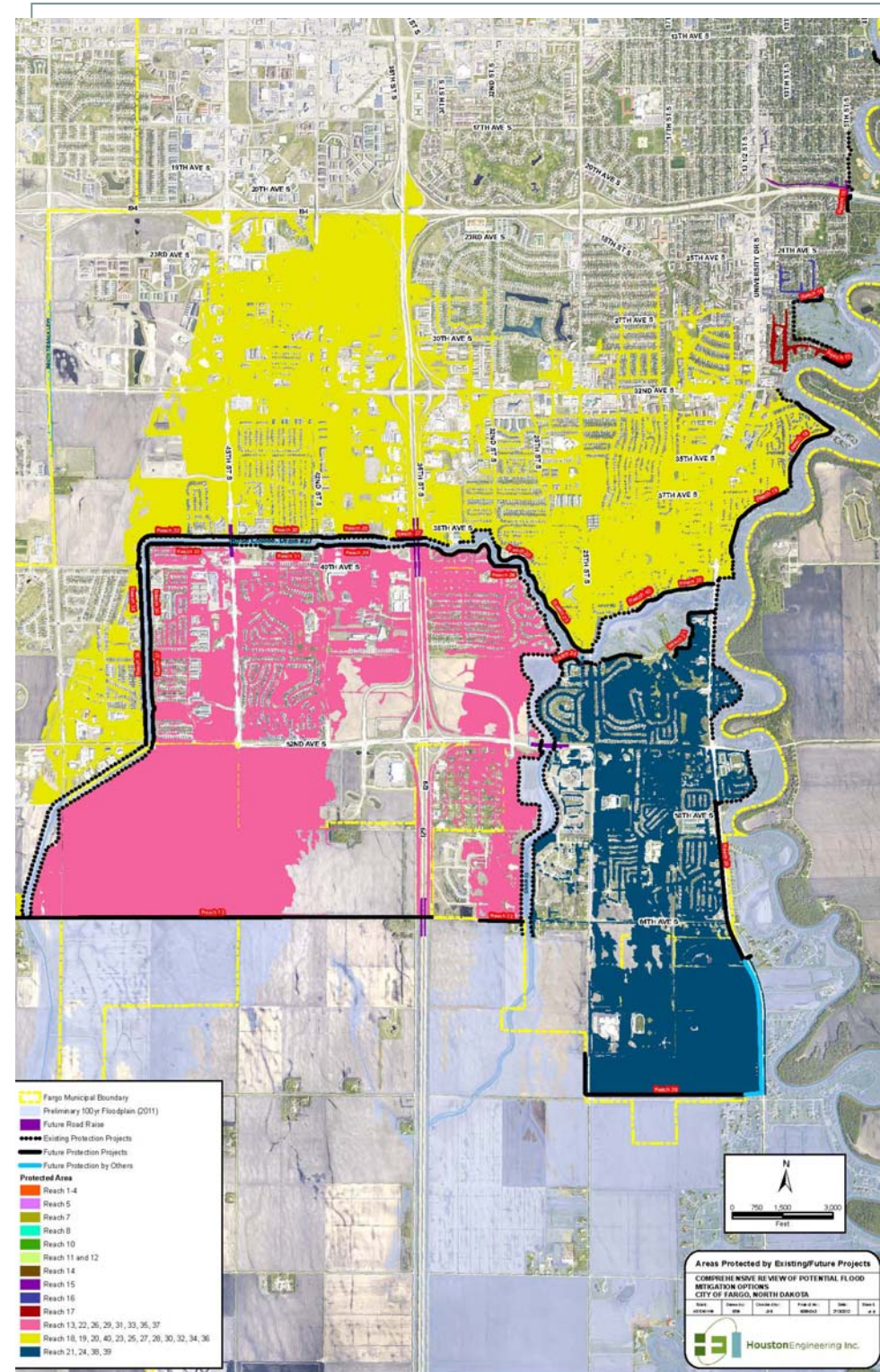
- Certifiable Protection From the Preliminary Floodplain (39.4 Feet)
- Only Proposed Projects If Protection Extended to Interior Property
- Identified an Estimated \$247 M in Projects
- Would require
  - 197 residential buyouts
  - 5 commercial/Industrial buyouts





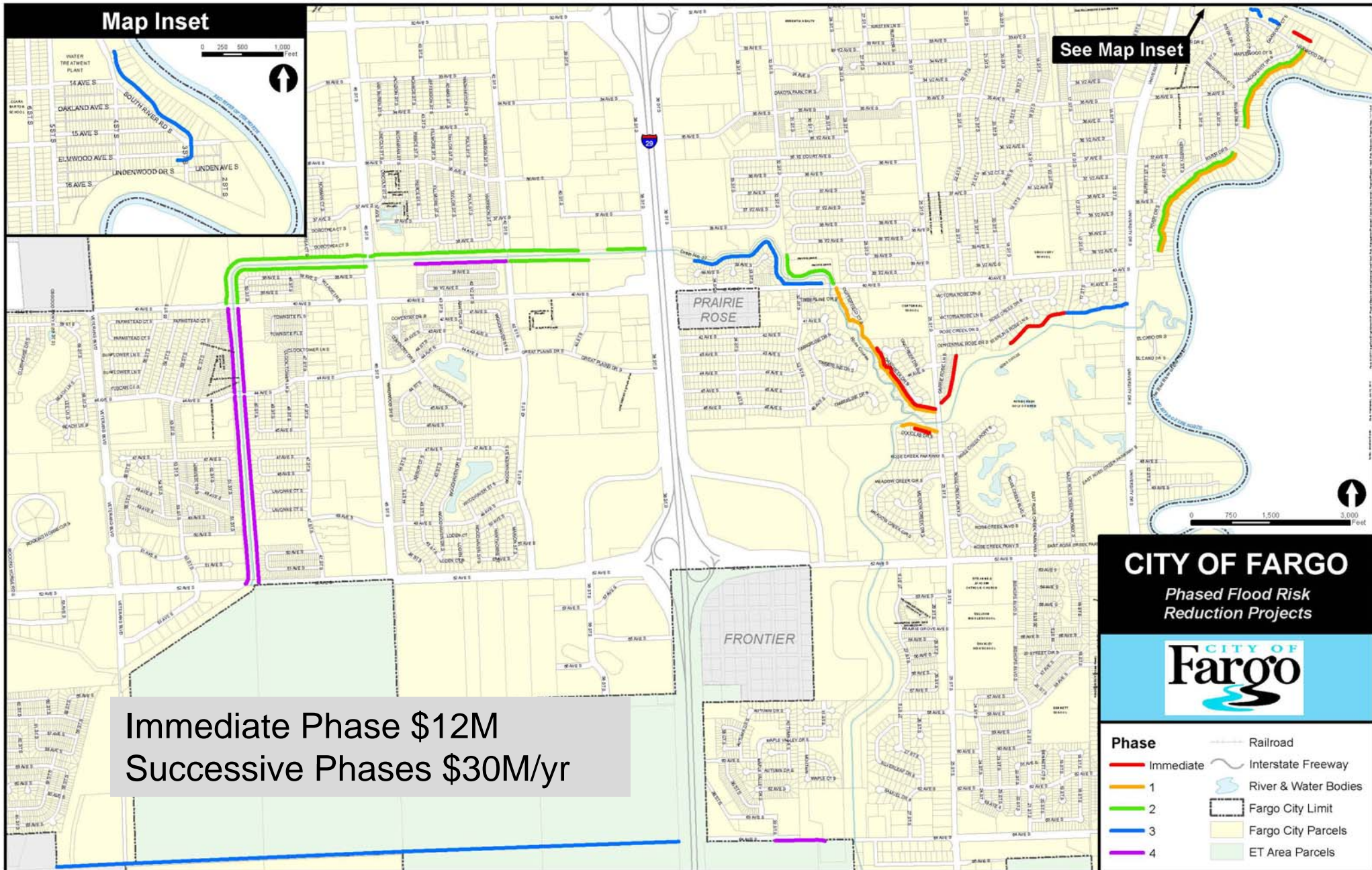
# Comprehensive Plan

- Area South of I-94 was identified as having a greater area at risk
- Yellow area has approx 1,500 structures in floodplain
- Recognizing funding limitations staff sought to prioritize potential projects





# Summary of Phasing





# Immediate Needs

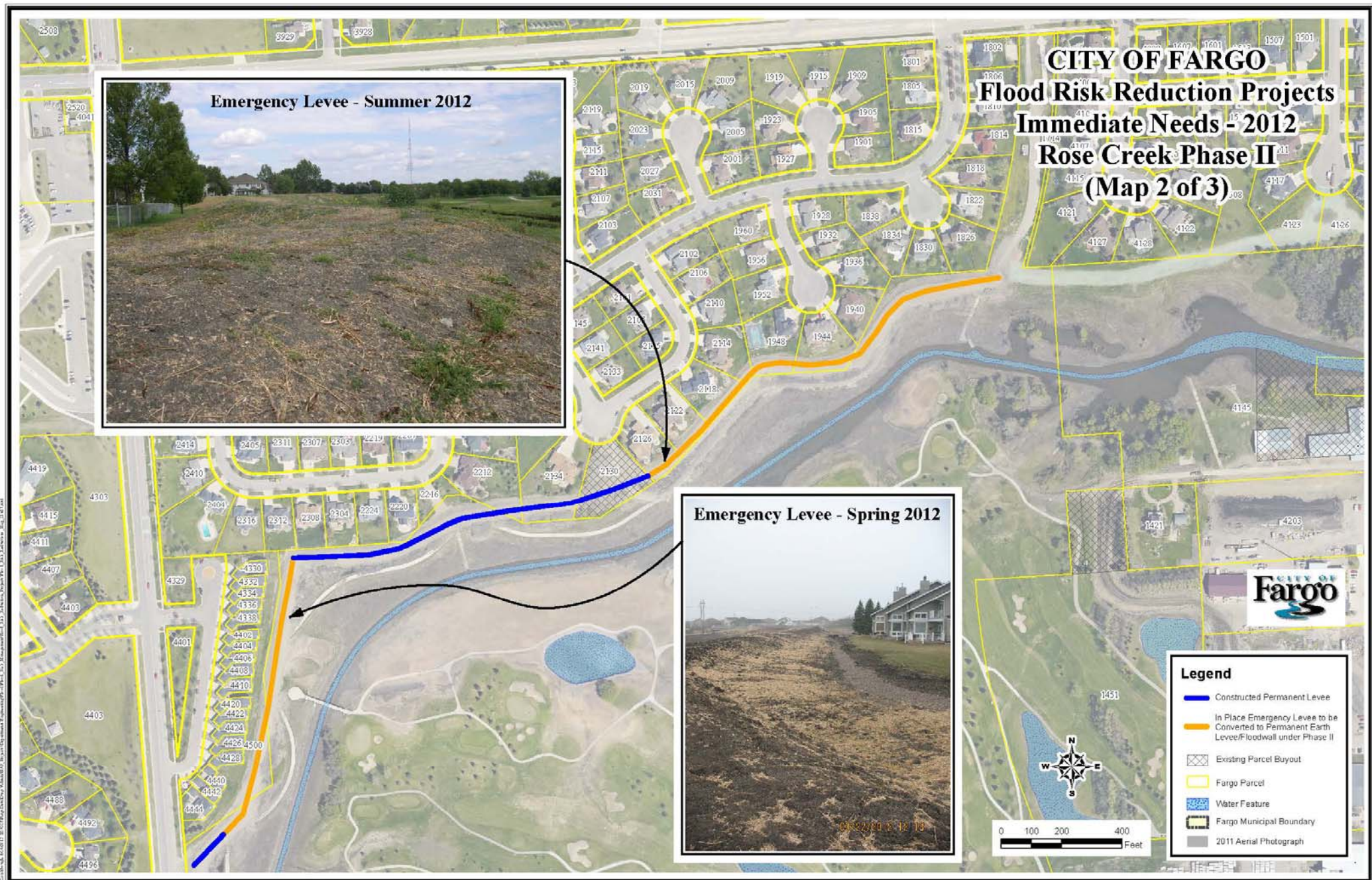
- Rose Creek Phase II-Floodwall/Levee Construction
- Harwood Groves Acquire 437, 501, 509 & Construct levee.
- Oak Creek/Coulees Crossing Acquisition, & Deconstruction of Homes

## Criteria Considered

- Presence of emergency levee
  - ✦ Need to remove/restore
- Ability to emergency protect
- Pending Development of vacant land
- Buyout Offers prioritized
  - ✦ Floodplain
  - ✦ Will decrease emergency measures
  - ✦ Eliminates flood insurance for those properties
  - ✦ Moves us toward the goal of neighborhood protection



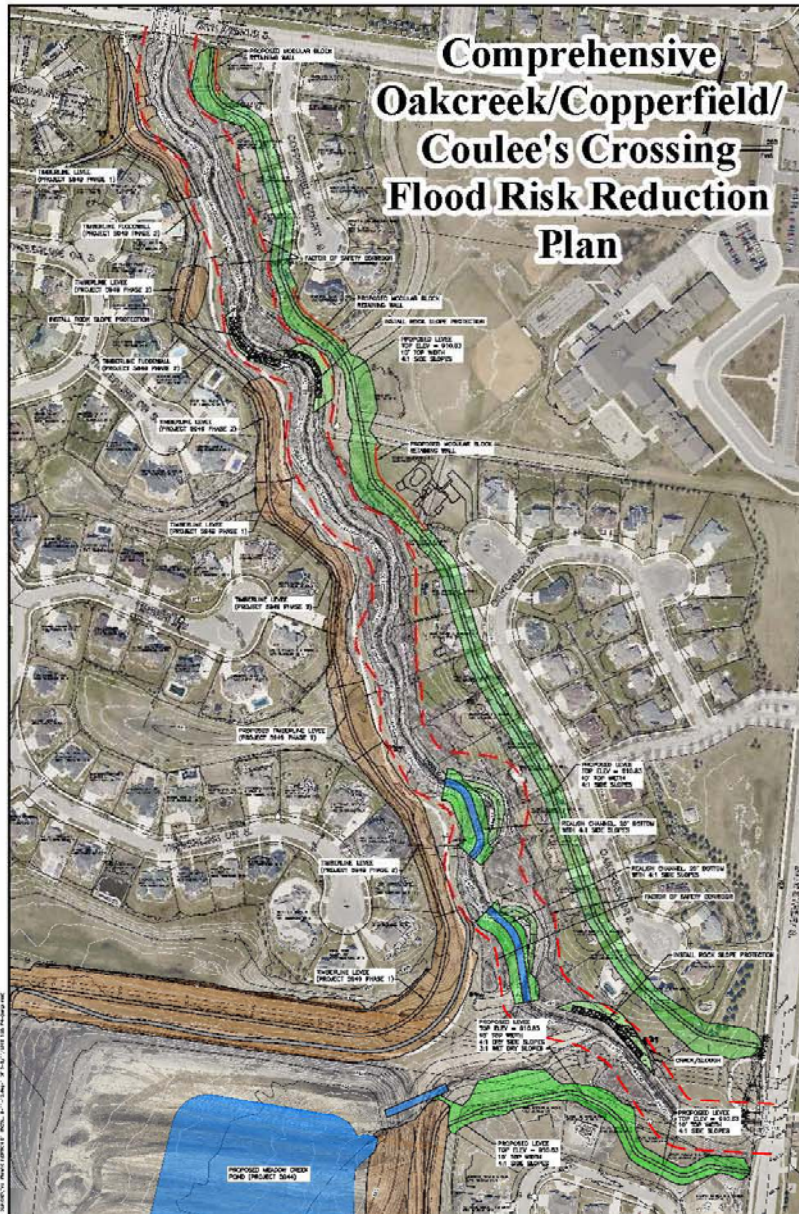
## Immediate Needs



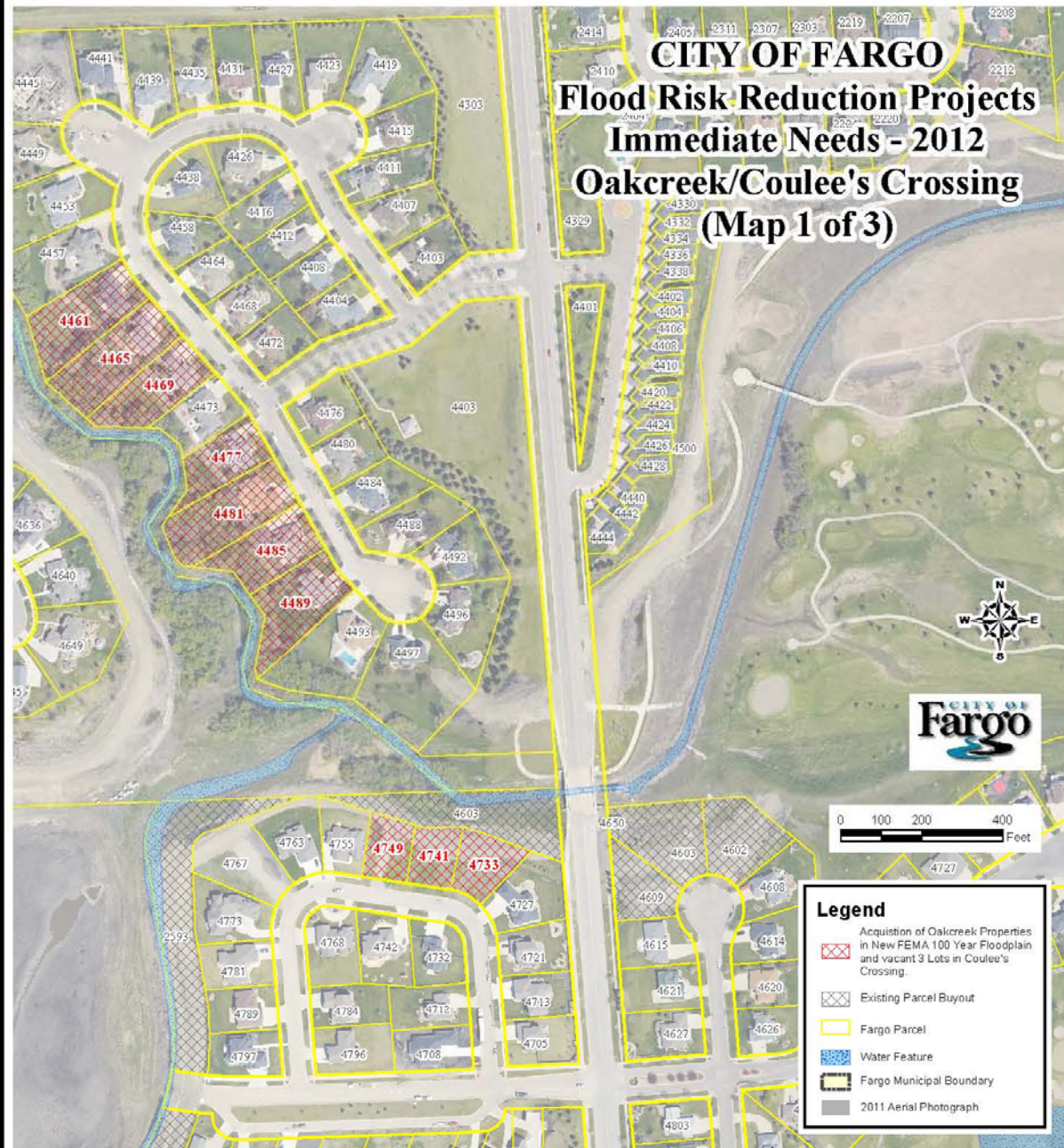


# Immediate Needs

## Comprehensive Oakcreek/Copperfield/ Coulee's Crossing Flood Risk Reduction Plan



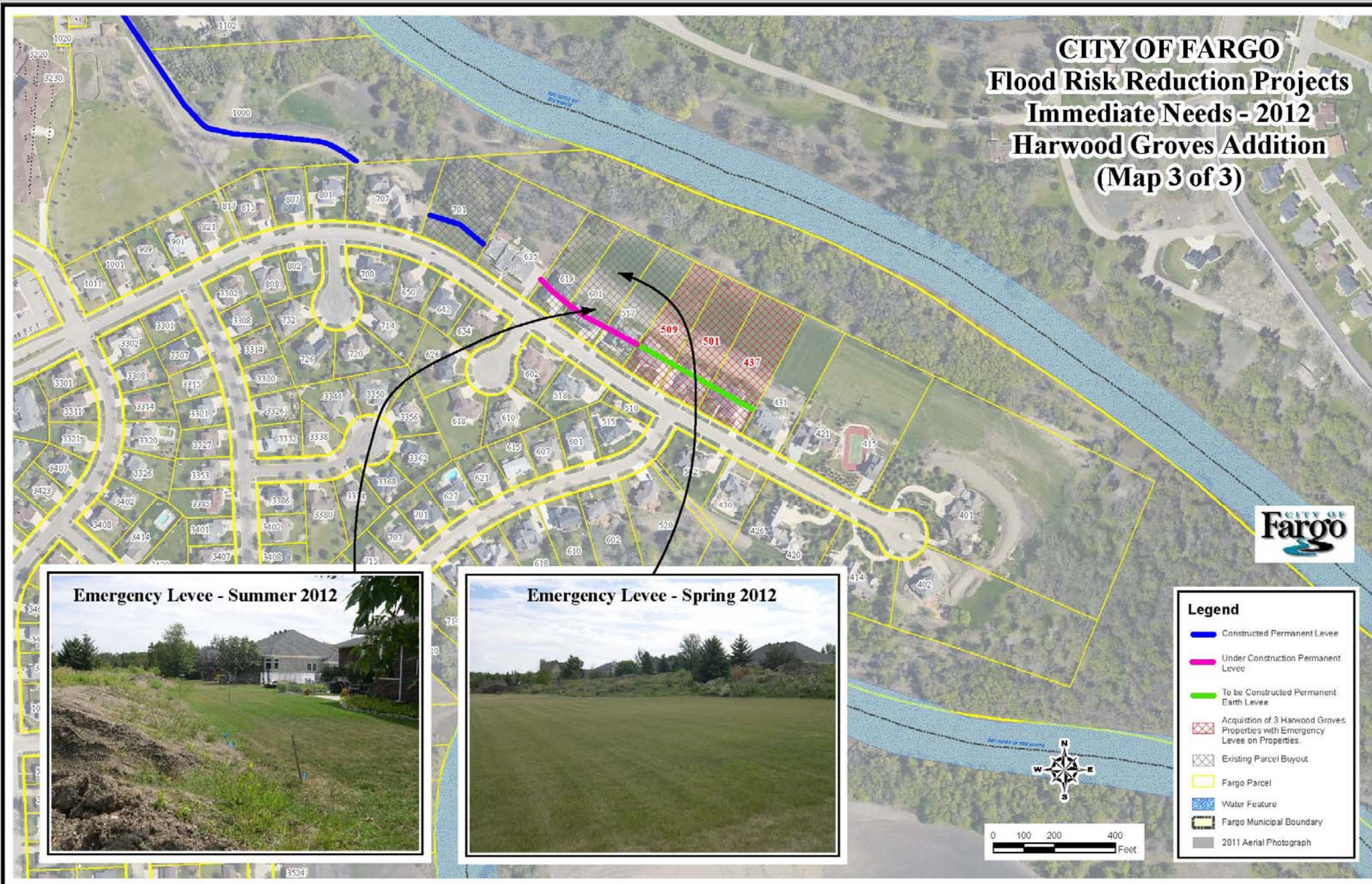
## CITY OF FARGO Flood Risk Reduction Projects Immediate Needs - 2012 Oakcreek/Coulee's Crossing (Map 1 of 3)





# Immediate Needs

## CITY OF FARGO Flood Risk Reduction Projects Immediate Needs - 2012 Harwood Groves Addition (Map 3 of 3)





# Phase 1

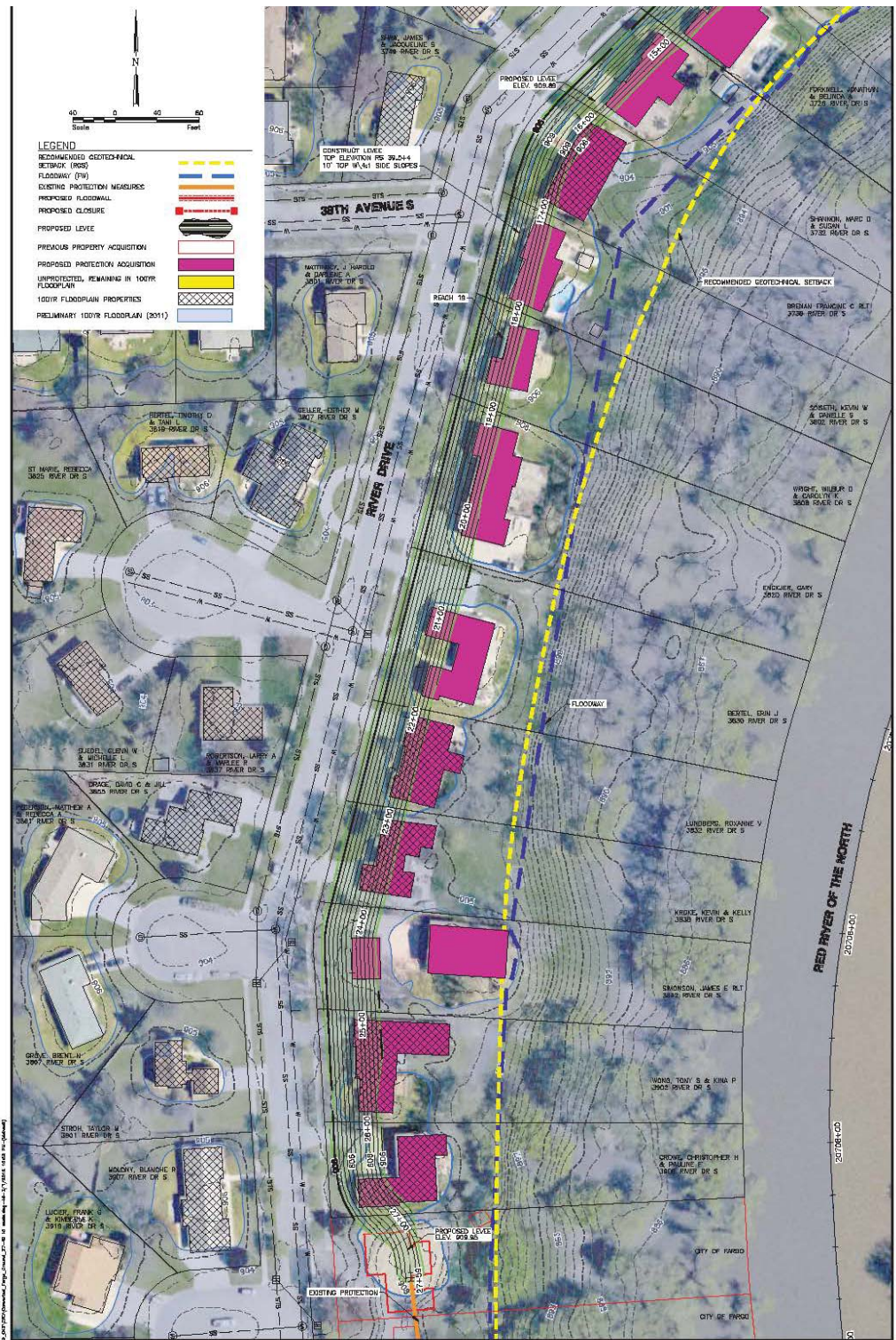
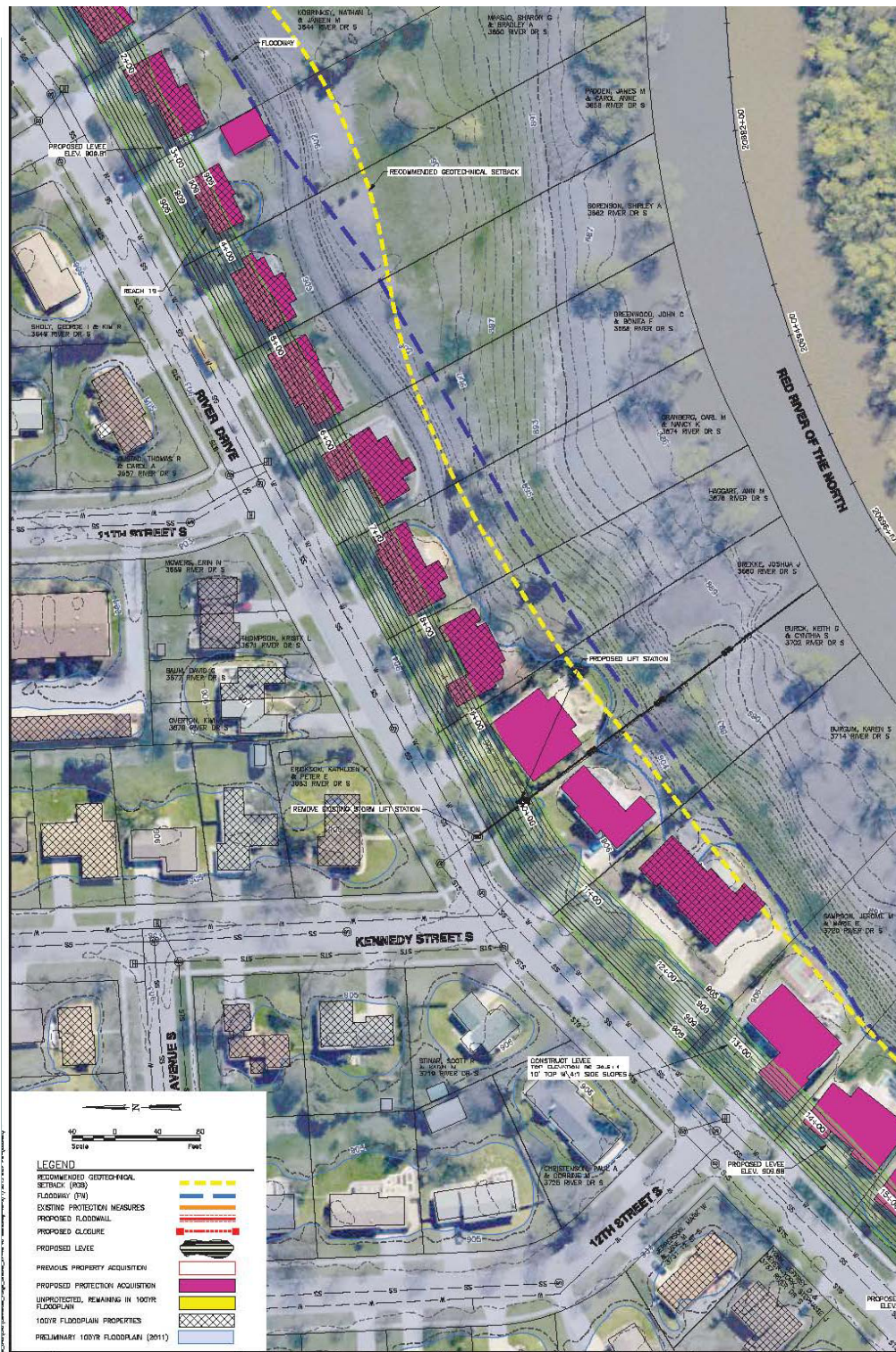


- Oak Creek Acquire & Deconstruct Remaining Creek Side Homes, Levee Construction
- Copperfield Court Acquire & Deconstruct Creek Side Homes, Levee Construction
- Coulees Crossing Levee Construction

- River Drive Acquire & Deconstruct 30 Homes
- Hackberry Drive Acquire & Deconstruct 10 Homes









## Phase 2



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- The background of the slide is a photograph of a construction site. In the foreground, there is a grassy area with some patches of snow. A concrete wall is under construction, with a blue bucket and some equipment visible. Behind the wall, there are large white and yellow sandbags or bags of material. In the background, there are bare trees and a house.
- River Drive Levee Construction
  - Hackberry Drive Levee Construction
  - Mistwood Townhomes Acquire & Deconstruct Structures, Levee Construction
  - Drain 27 Floodwall Construction at 36<sup>th</sup> Street
  - Drain 27 west of I-29 36<sup>th</sup> to 42<sup>nd</sup> Street Levee/Floodwall Construction
  - Drain 27 N Side 42<sup>nd</sup> to 45<sup>th</sup> St Levee/Floodwall Construction
  - Drain 27 45<sup>th</sup> St to 40<sup>th</sup> Ave Levee/Floodwall Construction







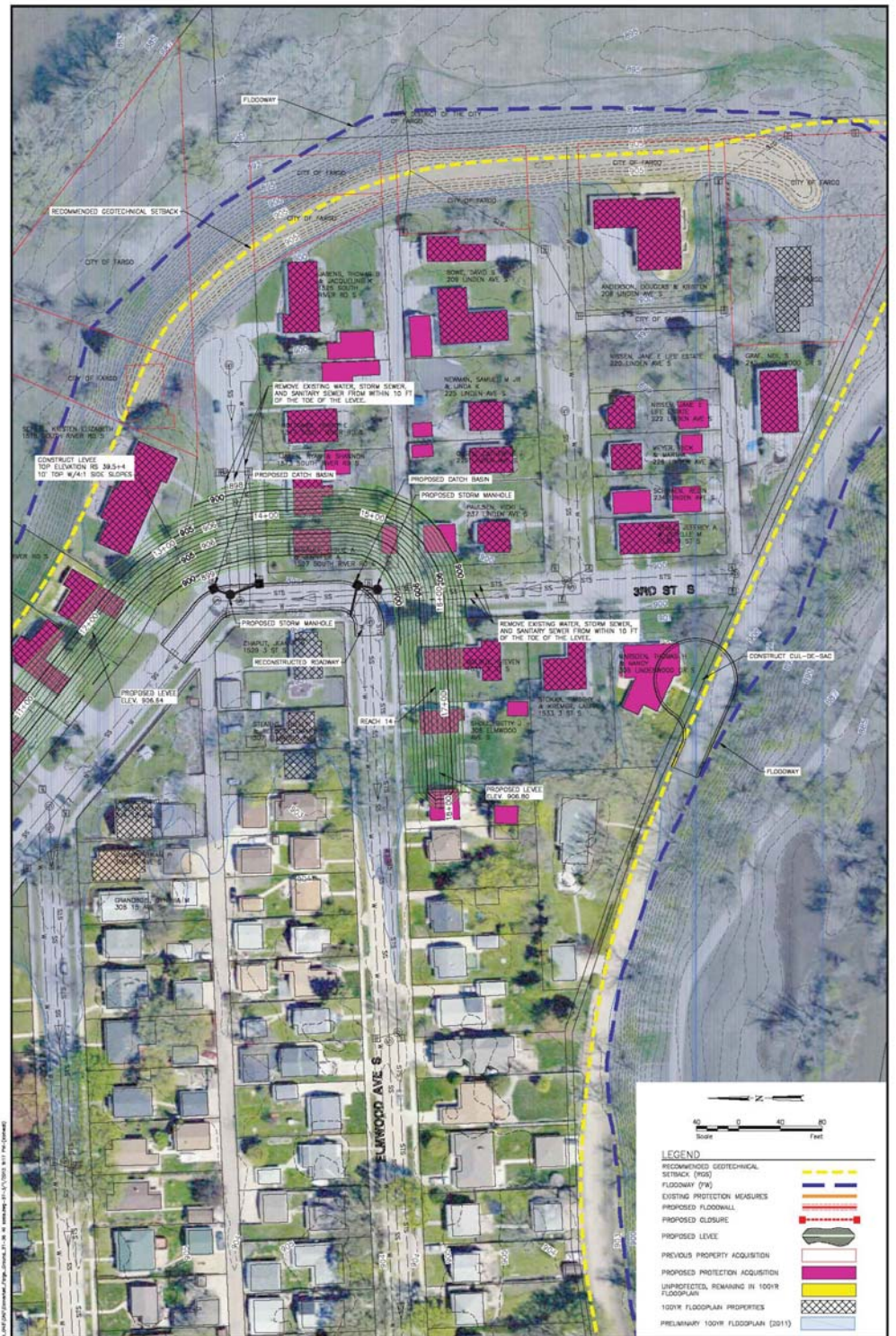
# Phase 3



- Rosewood Acquire & Deconstruct 5 Homes, Levee Construction
- Harwood Dr. Acquire & Deconstruct 2 Homes, Levee Construction
- Belmont Park Acquire & Deconstruct 30 Homes, Levee Construction
- 64<sup>th</sup> Ave South West of I-29 Levee Construction/Road Raise
- Prairie Rose Acquire & Deconstruct 35 Homes, Levee/Floodwall Construction









# Phase 4

- West of I-29 S Drain 27 42<sup>nd</sup> to 45<sup>th</sup> Street Acquire & Deconstruct 22 Twin-homes, Levee Construction
- Drain 27 40<sup>th</sup> to 44<sup>th</sup> Ave Levee/Floodwall Construction
- Drain 27 44<sup>th</sup> Ave to 52<sup>nd</sup> Ave Levee Construction
- 64<sup>th</sup> Ave S East of D53 Levee Construction

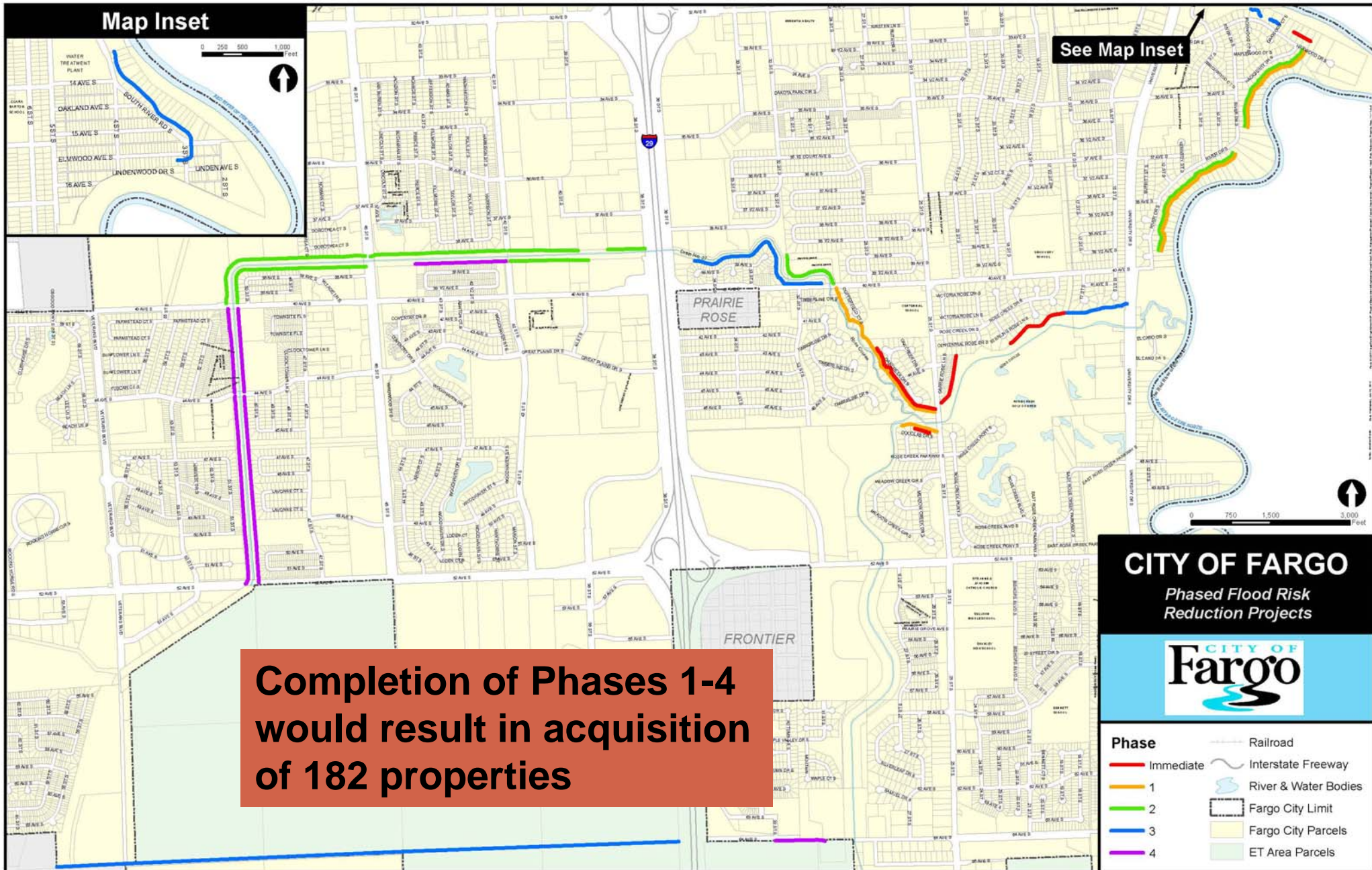








# Summary of Phasing





# Summary of Funding by Phase



Phase	Anticipated \$	Proposed Year
Immediate	\$11.4 M	2012
Phase 1	\$31.3 M	2013
Phase 2	\$30.3 M	2014
Phase 3	\$34.8 M	2015
Phase 4	\$24.9 M	2016
Total	\$132.8 M	



# Outstanding Issues

- 
- Not all voluntary buyout offers will be accepted
    - Ultimately Eminent Domain may be necessary
  - Some property owners have expressed a desire to be bought out but are not included in the recommended acquisitions
  - Not all areas have feasible solutions
  - Concept level design only for many reaches
    - will require more detailed design and public vetting prior to implementation
  - Some existing property outside of primary line with construction of certifiable reaches
  - Impacts of lost floodplain
  - Development Ahead of Flood Protection



# Questions/Discussion

