



John D. Hunter, Mayor

Sheffield Village Flood Insurance Rate Map Update Presentation

Jungbluth Ditch

From Abbe Road to Interstate 90

August 14, 2008

John D. Hunter, Mayor

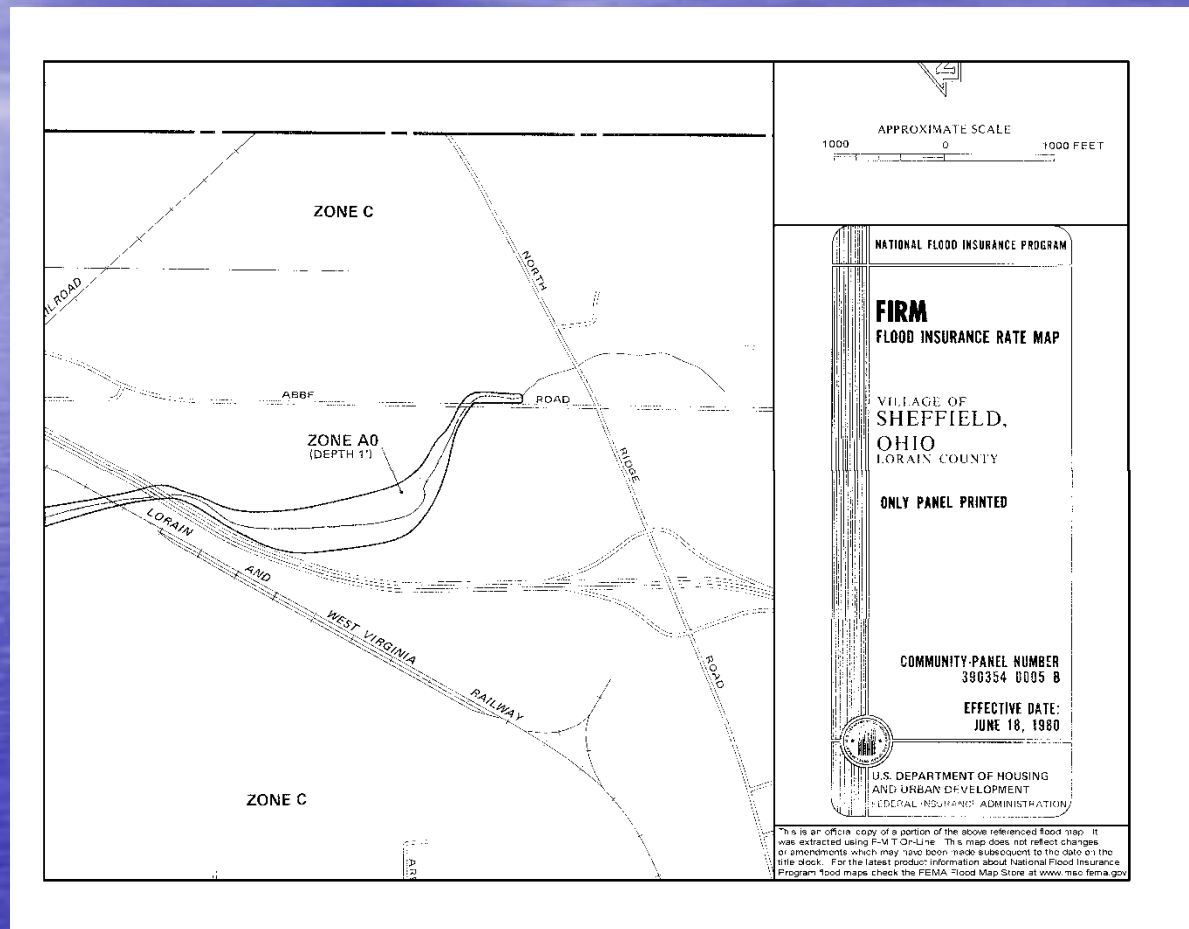
There are three study objectives:

1. To anticipate 100 year flood boundaries for the setting of insurance rates under the National Flood Insurance Program;
2. To comply with FEMA's requirements to make sure of the availability of flood insurance in our village. Non-compliance can actually cause FEMA to withdraw the availability of flood insurance which would cripple the secondary mortgage market; and
3. To develop a database suitable for modeling and analysis of flooding abatement strategies.

What precipitated the study?

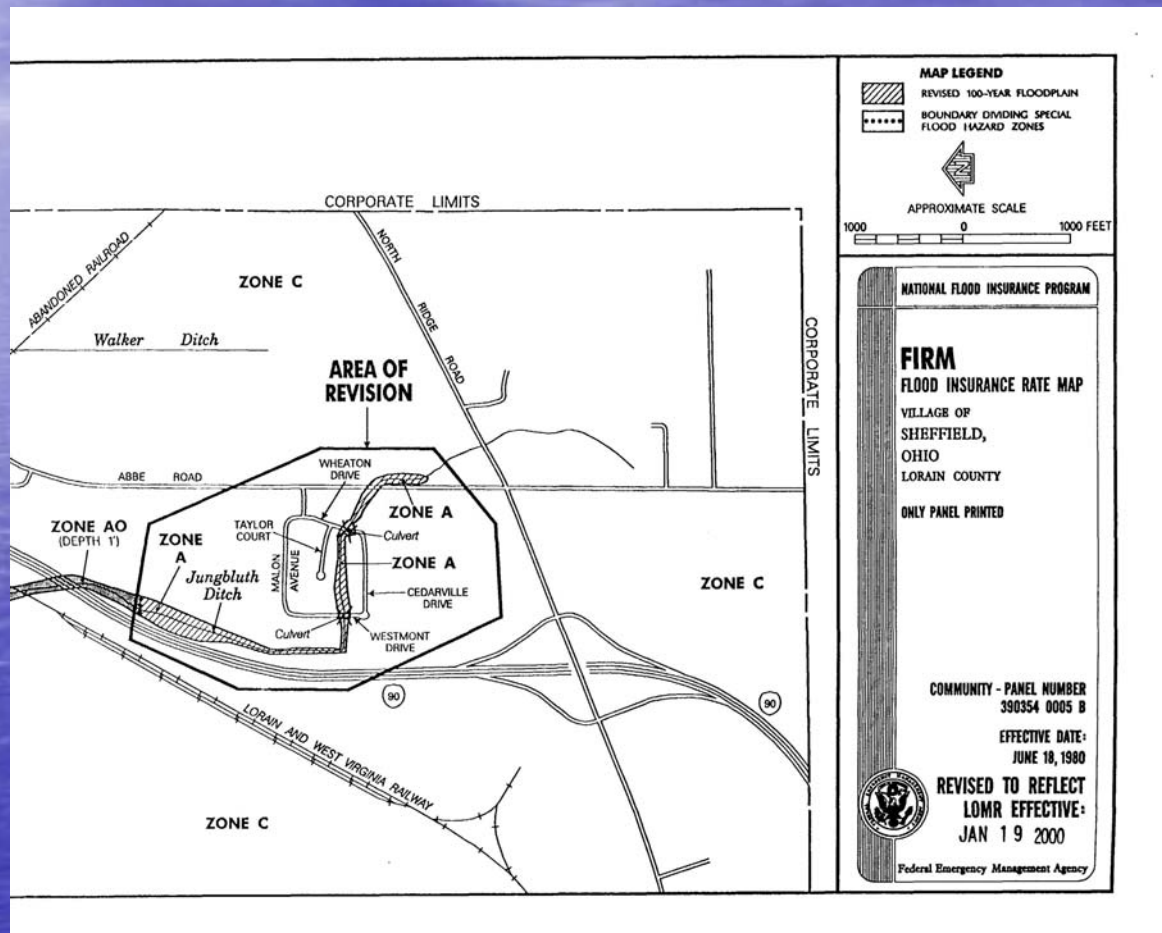
- The area bounded by Detroit Road, Interstate 90 and Abbe Road (commonly known as “The Triangle”) has experienced street flooding that is inconsistent with past studies.
- FEMA mandated in January 2000 that the Village conduct a comprehensive flood study before any construction was permitted upstream.

The study area (AKA The Triangle)



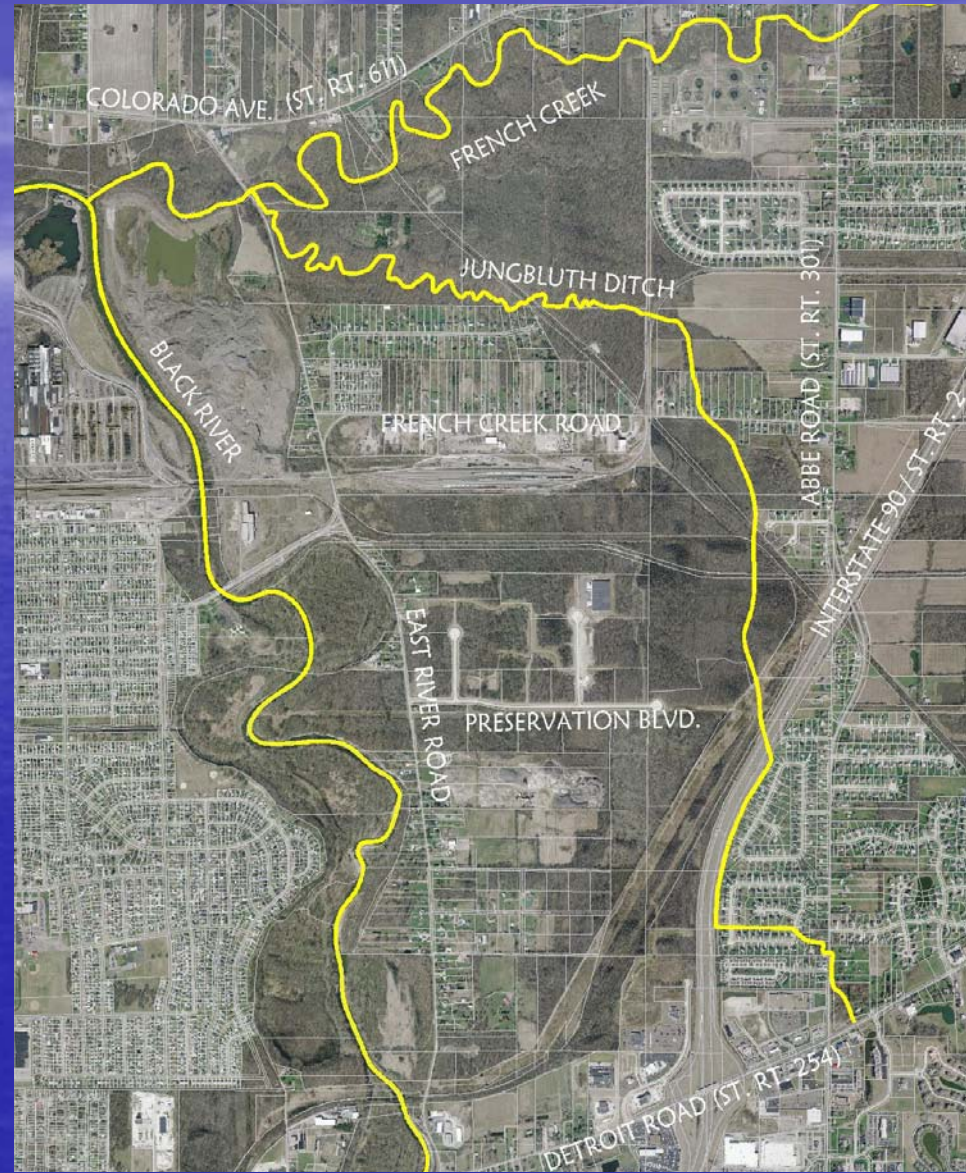
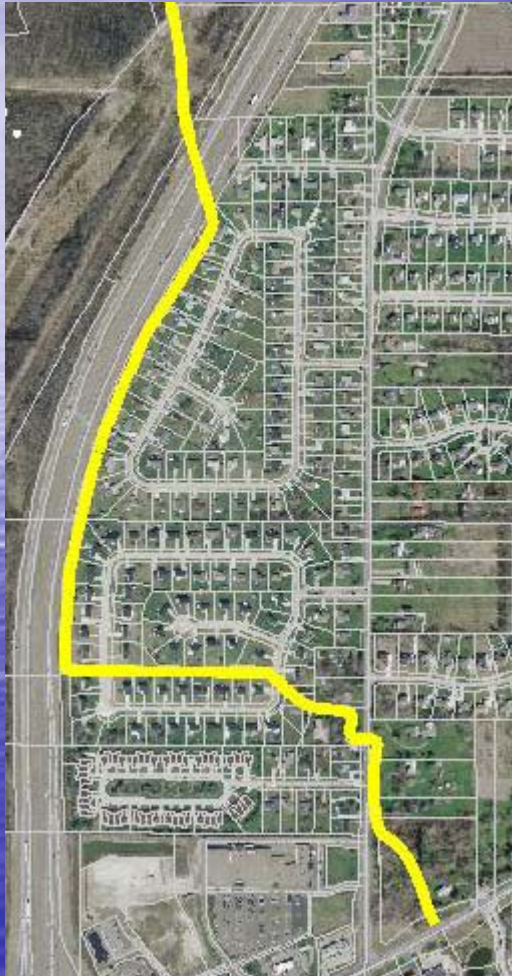
Initial Flood Hazard Boundary
As Shown June 18, 1980

The study area (AKA The Triangle)

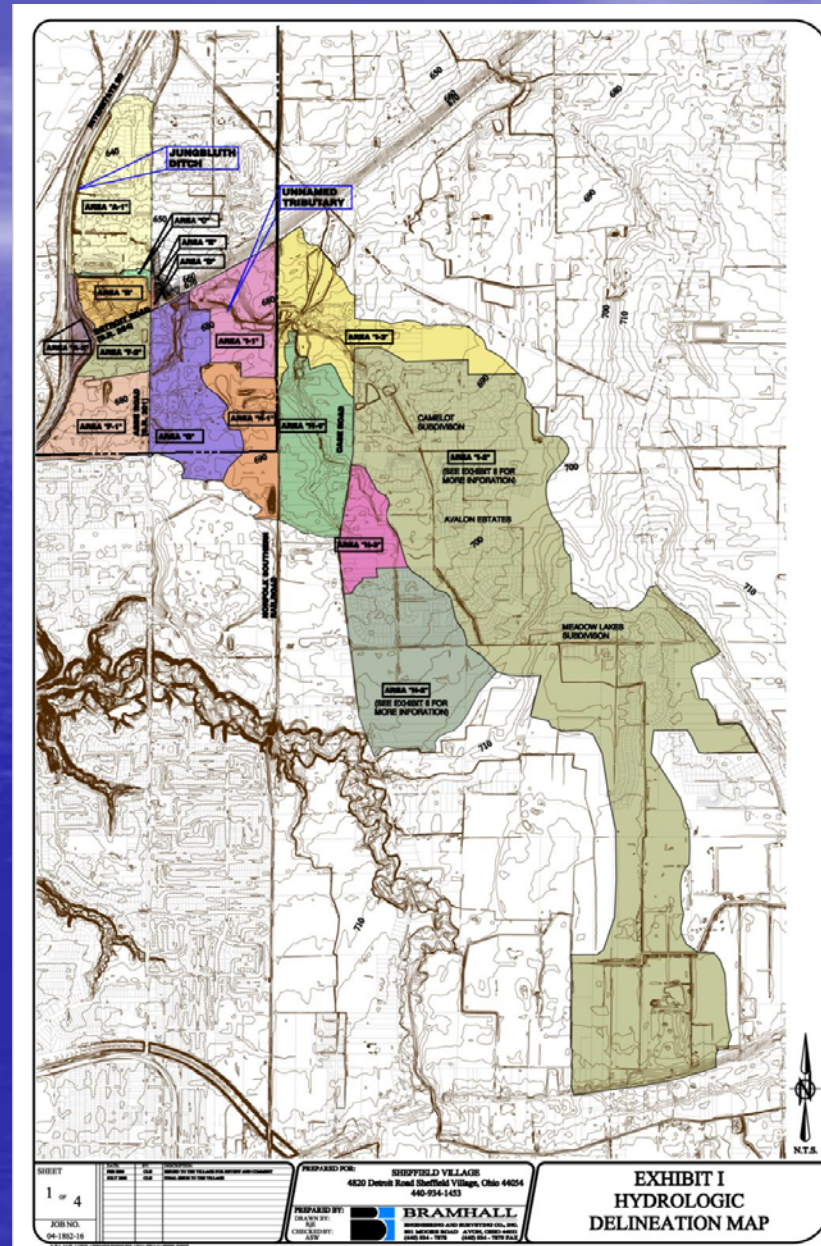
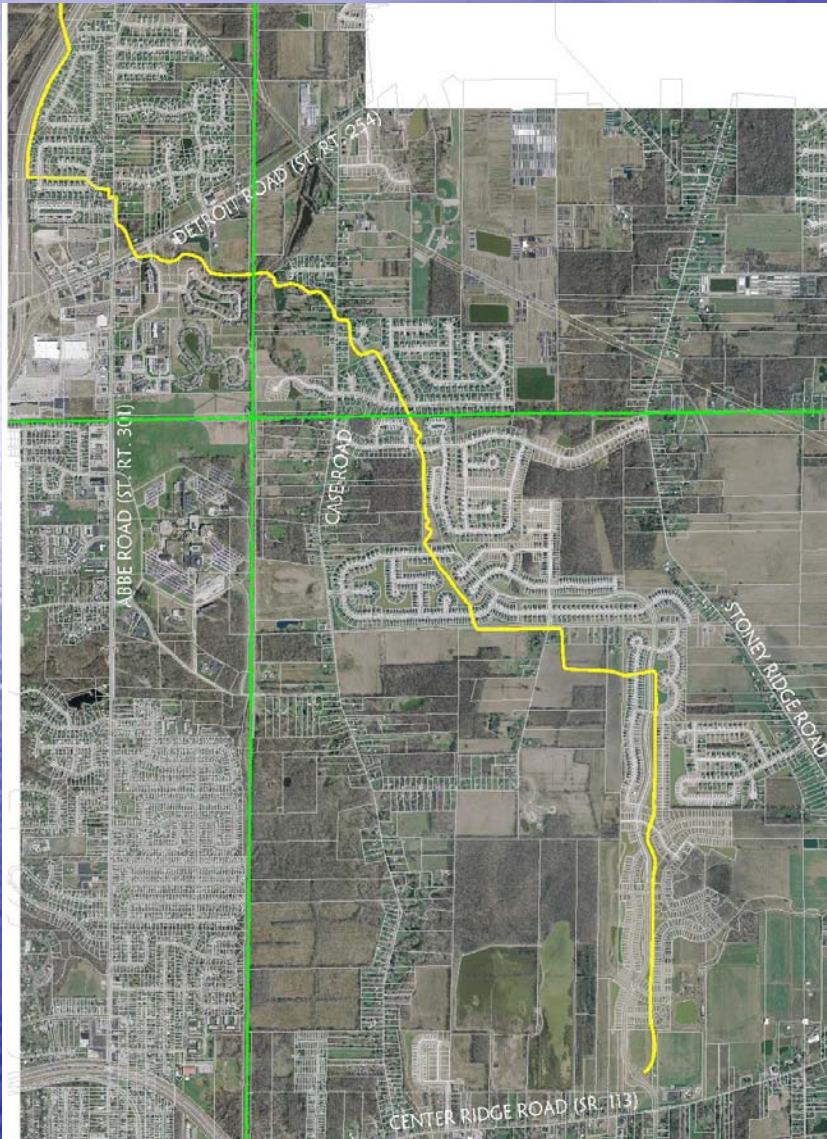


Area of Revised Flood Hazard Boundary As Shown January 19, 2000

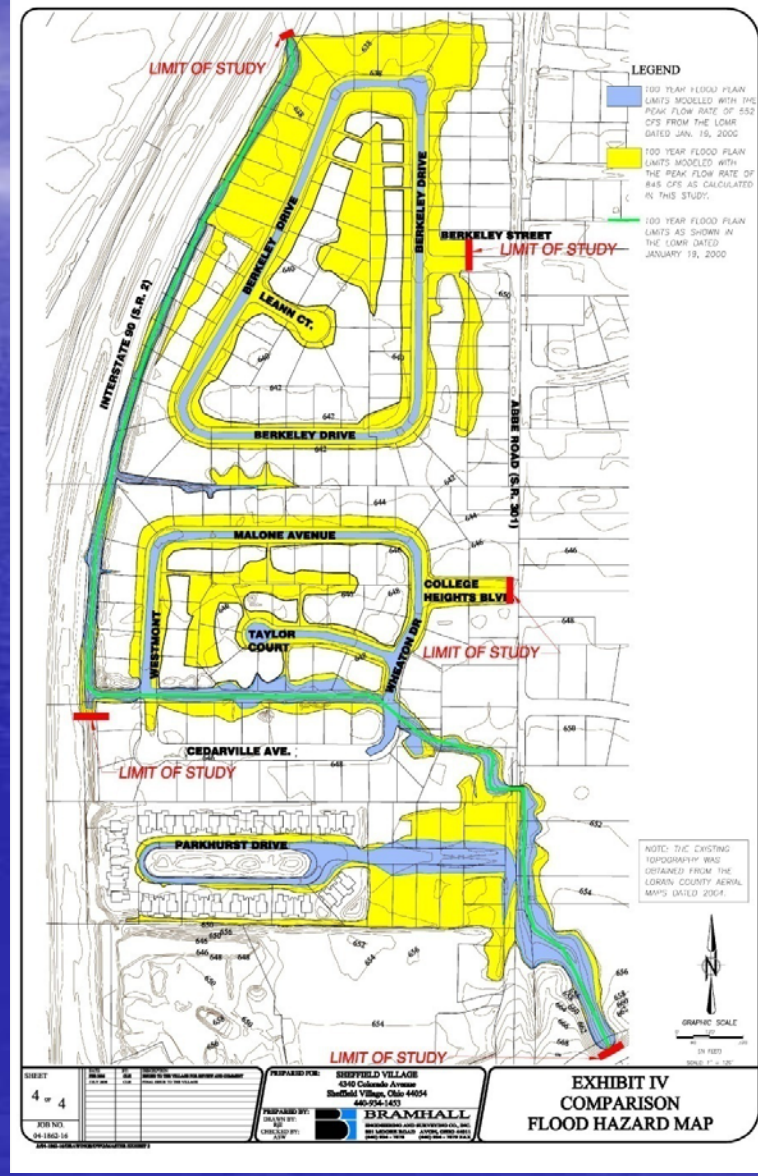
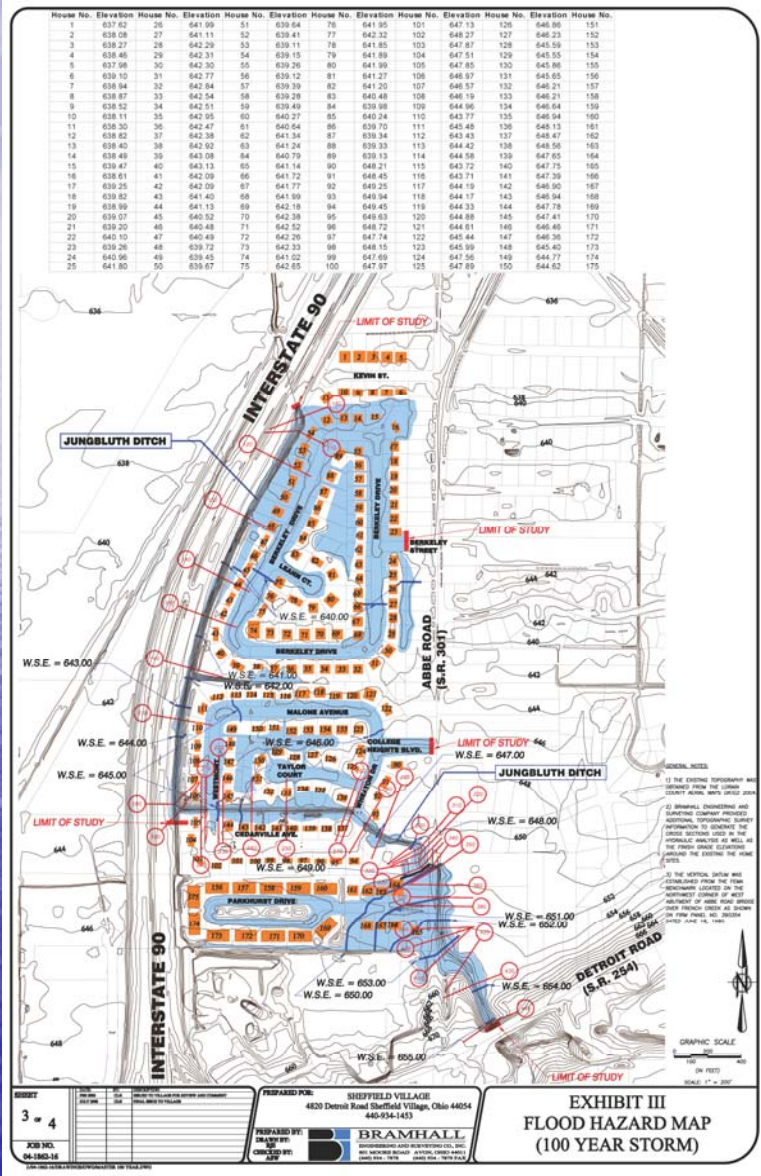
Jungbluth Ditch



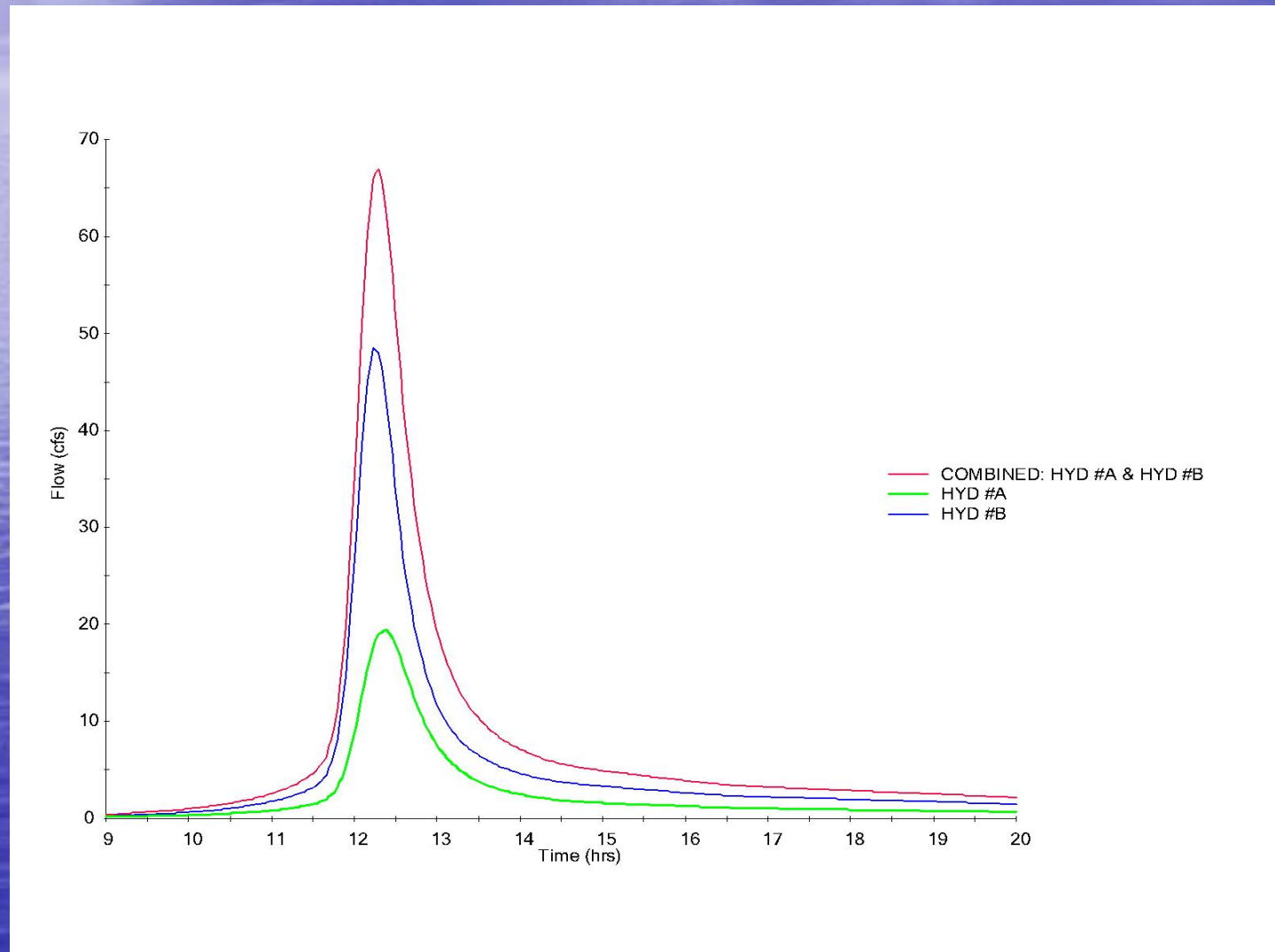
Watershed contributing to Jungbluth Ditch



Flood Hazard Map



Typical hydrograph



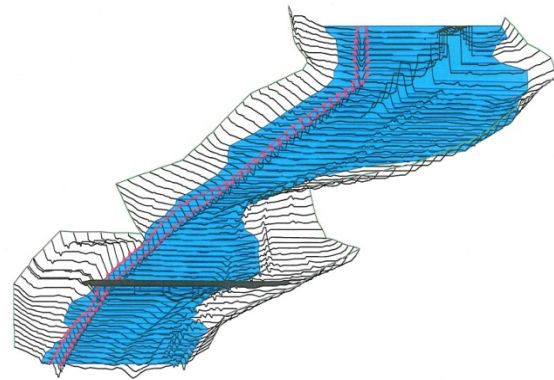
How do
engineers
calculate water
surface
elevations?

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US Army Corps
of Engineers
Hydrologic Engineering Center

HEC-RAS River Analysis System



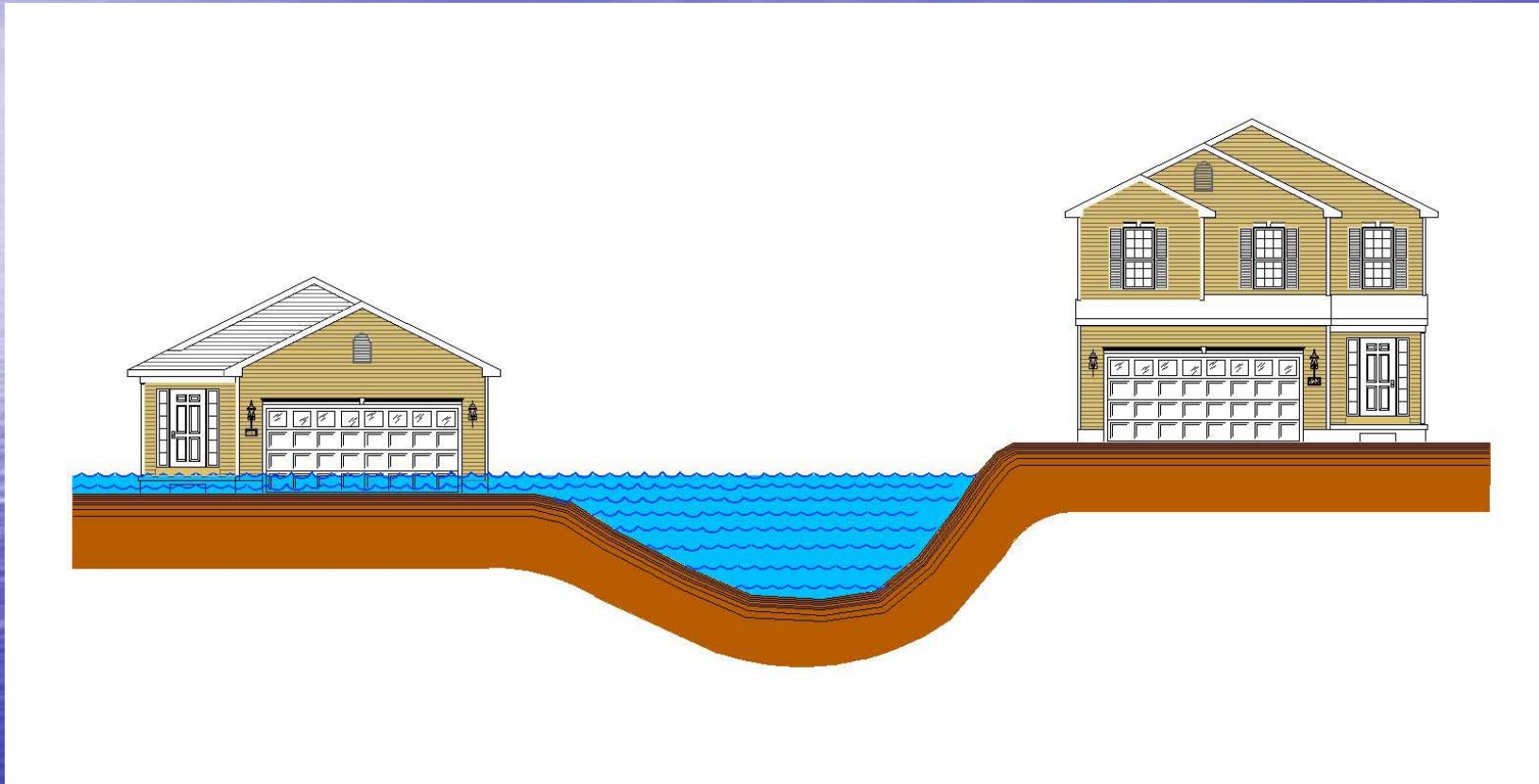
Hydraulic Reference Manual

Version 4.0
March 2008

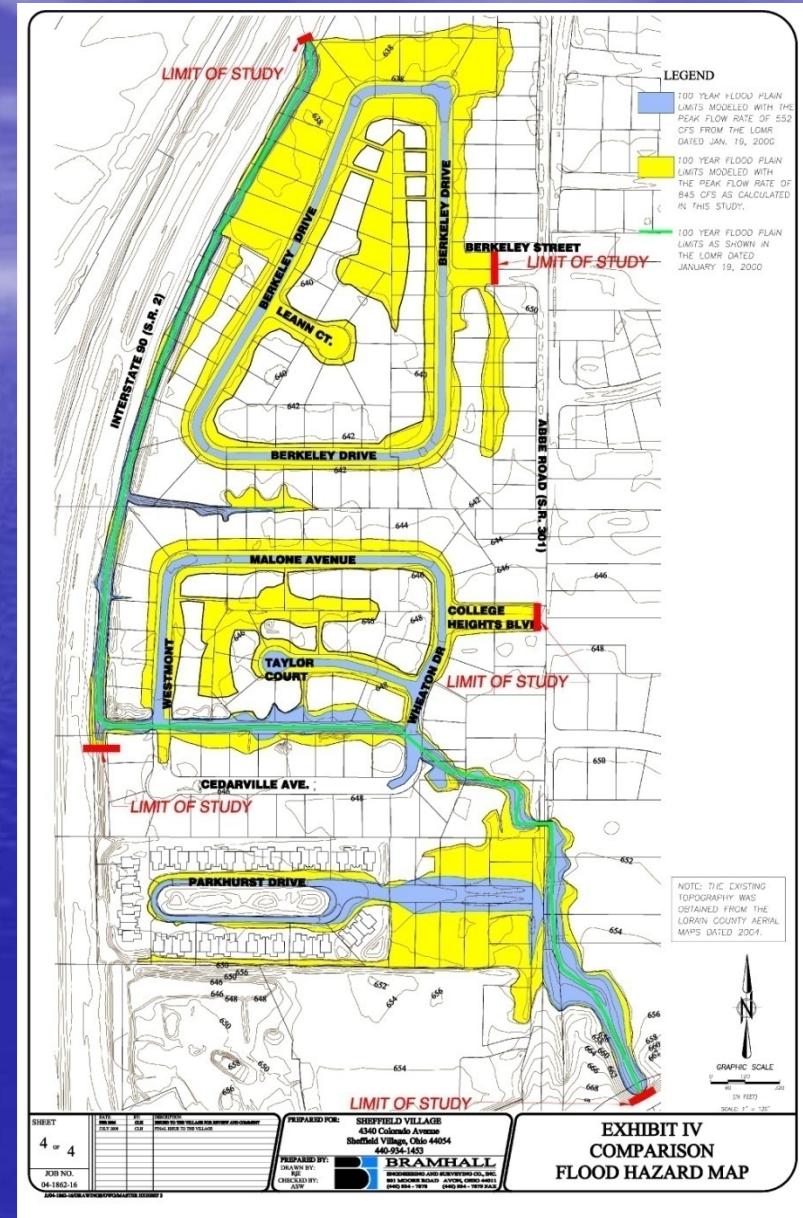
Approved for Public Release. Distribution Unlimited

CPD-69

Typical stream section



Flood map comparison

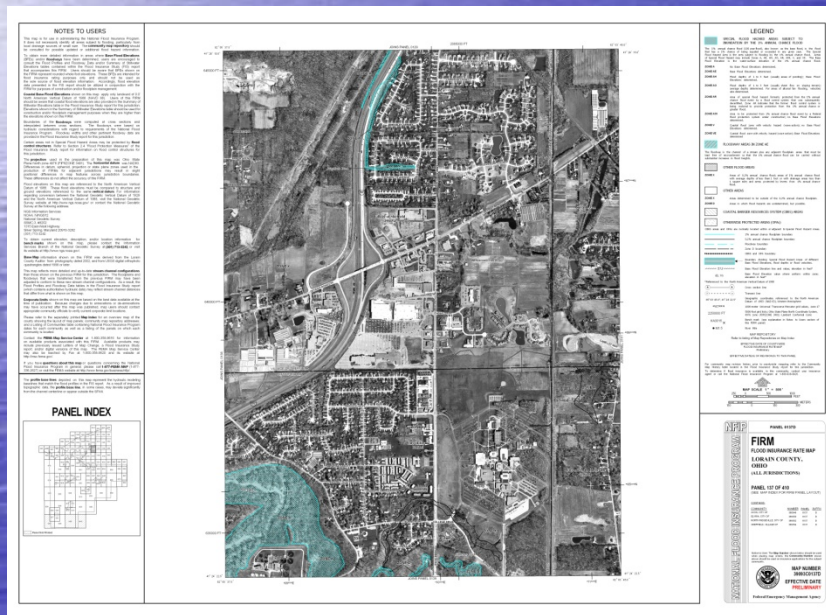


The storm of August 20, 2005 was significant:

- A rainfall of 5.8 inches was observed. Huff and Angel report a value of 5.92 inches. These data are so close that our professional opinion is that we experienced a 100 year storm and that it is very unlikely to be exceeded.
- Future development will reduce flooding due to increased controls that are being regularly enforced throughout the watershed.

FIRM Effective August 19, 2008

Full Panel



Detail of Triangle Area



The recent update to the FIRM is significant:

- It shows that the eastbound lane of I-90 will be topped before inundation gets to the houses.

FIRM Effective August 19, 2008



Other significant findings:

1. Reported basement flooding in the College Heights/Berkeley area was primarily related to individual sump pump failure.
2. Some localized flooding on Parkhurst Drive near Abbe Road was observed.
3. The culvert crossing Westmont Drive is undersized. At this time the affect of replacing it is under study.

Anticipated questions:

- How can I tell if my home is in the floodplain?
- Am I allowed to buy flood insurance?
- Am I required to buy flood insurance?
- Do I have the right to buy flood insurance?
- How much does flood insurance cost?

Next Steps (12-15 months)

- Public Hearing on 8/14/2008 At 6:00 PM, Brookside High School Cafeteria, Sheffield Village
- Administration-Notify affected property owners by certified mail;
- Village Council Resolution authorizing the Village's Floodplain Administrator, to sign application;

Next Steps (12-15 months)

- Engineer - Complete & submit app. to FEMA;
- FEMA subconsultant will review and comment; and
- Resolve any comments that arise from FEMA's review process

Anticipated questions

- What can the Village do to help reduce the impacts?
- Does the Village have any recourse against the builder/developer that created this situation?
- Can the Village refuse to file this FEMA mandated report?
- Is the Village responsible for damages or is it obliged to take corrective action?

Open Floor to Questions?

THANK YOU FOR ATTENDING
AND PARTICIPATING