The Use of GIS for FEMA Flood-zone

City of Evansville - Vanderburgh

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Geologic implications affecting flood zone:

Pennsylvania

tional age

bedrock of sandstone, limestone

and coal creating topography.

Terraced, unconsolidated fluvial deposits

>100’ to

Glacial lake and loess deposits.

(Gray, 1989)

Ohio River

Vanderburgh County, Indiana
Orthophotography "image catalog" of entire Vanderburgh County.

6 inch resolution
Digital elevation model.

Prominent **dendritic** drainage pattern.

Legend

Value

High: 609.082153
Low: 325.911469

*Values in feet

Vanderburgh County, Indiana
Hill shade derived from digital elevation data.

Meander scrolls of the Ohio River recorded in alluvial deposits.
Flood-zone follows dendritic drainage pattern
Flat, lake silt deposit allows for an expansive levee system
protects the city of Evansville from flooding occurrence
Parcel shapefile of entire county **invaluable** for flood-zone research using GIS based platform.
Example flood-zone determination:

EVANSVILLE - VANDERBURGH CO BUILDING COMMISSION
DRAINAGE CHECK REQUEST

PERMIT#____________________ DATE: __2-20-03_______ CLERK: __RB____
CALLER/CONTRACTOR: __________________________ PHONE#: __________
ADDRESS: __________________________ CITY: __________ STATE: ______ ZIP: _______
REQUEST: LETTER CALL BOTH

LOCATION OF PROPERTY: ____________
SADDLEBROOKE LN

SUB-DIVISION: Valley Downs
LOT#: ____________

PLANIMETRIC# SEC TOWNSHIP SOUTH RANGE WEST

Results of Check: Flood Zone: ____________________________
Community Panel #: ____________________________
Effective Date: ____________________________
1st Floor Elevation: ____________________________

Date completed: ____________ Researched By: ____________
Staff researching of Federal Emergency Management Agency Flood Insurance Rate Maps
The old way:

Original 1968 planimetric map.
FEMA published paper map

GIS-based digital

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The new way.

Select by attributes query statement.
Address located and flood-zone easily determined.
Current "Q3" floodmap shapefile.
Proposed flood map revision shapefile "DFIRM".
Property touches flood zone, but the structure is not within 100 year.
Final step:

Microsoft Excel spreadsheet records data for *all* flood checks.
Use of 3D Analyst cross-section tool.
Building Commission

Welcome to the City of Evansville, Indiana, Building Commission

Building Commission
310 Civic Center Complex
1 N.W. Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708-1833
Phone: (812) 436-7881
Fax: (812) 436-7869
TDD-Hearing Impaired: 436-4925

View the current and proposed Flood Plains for Vanderburgh County

Tutorial on how to use the GIS Site

Q3 flood information and proposed map revision “DFIRM”
available online for public use

http://www.buildevansville.com
or
http://www.evansvillegis.com
Layers Menu

Check the box to make that layer visible on map

Making an layer active allows you to build a query or use other functions

Use this button whenever you are adding a layer to the map

Tutorial for ArcIMS website.
Arc-IMS website display.

Proposed FIRM revision.

Currently used FIRM.
Layers available on ArcIMS site:

* Flood-zone boundary (current and proposed revision)
* Hydrology (stream, ditch, lake, pond, swamp, river)
* Contour and spot elevation
* City / County boundary
* Rooflines
* Street centerlines
* Abandoned underground coal mines
* Ortho photo
References

Cited:


http://gis.indiana.edu/geology/maps/gisSouthwest/ofc0123Reader.cfm

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Federal Emergency Management Agency. Q3 digital flood insurance rate map and proposed revision.

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