DGDC Meeting Minutes
February 9, 2017

Attendance List:

Hillary Austin	DSHA
David Bennett	DTI
Mark Biddle	DNREC
Kyle Bouilen	DE Elec. Coop
Lori Brown	DNREC/NPS
Terrence Burns	DHCA
Donald Burris	DelaSoft
Kim Cloud	DTI
Darin Dell	DTI
William Docca	DE Elec. Coop
Bernie Gilbert	DelDOT
Lauren Good	KCI Technologies
Josh Gritton	Lewes Public Works
Allice Guerrant	DHCA
Jay Hodny	Kent County
Jimmy Kroon	DDA
Matthew Laick	DSHS
Danielle Lamborn	Kent County
Brian Lutes	DRBA
Joel Marshall	Sussex County
Erica McMaster	Washington College
Nicole Minni	UD WRC
Megan Nehrbas	Sussex County
Mark Nowak	City of Dover
Miriam Pomilio	OSPC
Michael Powell	DNREC
Mollie Raley-Hall	DelDOT
TSgt Bryan Ross	DE Air National Guard
Bill Seybold	DE Forest Service
Debbie Sullivan	DNREC/DTI
Lillian Wang	UD DGS
Greg Williams	DNREC
Carl Yetter	DE Coastal Programs

Welcome & Introductions

Miriam Pomilio started the meeting at 9:06 am. She welcomed everyone to the meeting and introductions were made.

November 10, 2016 Meeting Minutes

Jimmy Kroon made a motion to approve the November 10, 2016 Meeting Minutes (PDF). Megan Nehrbas seconded the motion and it passed unanimously.

Geospatial Education Committee

Nicole Minni gave a presentation on the efforts and events that the Geospatial Education committee coordinates:

- An ESRI and Delaware Map Competition that is currently underway for grades 4-12th. This is a contest that starts at the state level and feeds up to Esri's national competition. Information about the contest can be found at: http://www.mygeoworld.org/2017-delaware-mapping-contest/ Please share information about this contest with schools in Delaware.
- GIS Day Field trip which accommodated a little over 300 students this year. This event is a big success every year and we always have more teachers apply than we can accommodate. We are always looking for volunteers to assist with this event.
- K-12 GIS Software Licensing is available for FREE to every school in the US. In Delaware you can contact Corey Downer at Dept. of Education for a license. There are also free accounts for ArcGIS Online for Organizations to allow schools to deliver curriculum content to students. Over the last 2 summers, Esri has provided grant funds for Delaware to host Teacher workshops through their ConnectED program to instruct on how to use AGO in curriculum.
- 9th Grade Planning Unit is being updated and will incorporate more hands-on GIS use for students. Miriam Pomilio has been working with the Delaware Geographic Alliance and a group of teachers who are updating the content.
- GIS Mentors are needed, please volunteer your time and expertise to assist teachers in their classrooms and/or with events. Contact Nicole Minni if you are interested and she will get you signed-up.

Aerial Imagery Update

Miriam Pomilio reported that the State has contracted with Surdex to fly new aerial imagery statewide in 2017. The imagery will meet our standards and be quarter meter resolution. State Parks has elected to buy-up and get 3" resolution in several areas. Surdex held a kick-off meeting in Mid-January with state agencies to go over the expectations and provided details of their Sur-Check process for QA/QC of the imagery. Flights will begin as soon as the environmental conditions are met (sun angle, etc.). Updates will be sent to the group as they are received. The imagery is expected to be delivered in Mid-July 2017 and will be served on the FirstMap system.

The State did not have enough funds to move forward with the development of Land Use/Land cover from the RFP. Miriam indicated the state is still looking for funding for this dataset and will convene a working group to look for funding and other options for updating the dataset.

Technical Advisory Committee Update

Mike Townshend reported the last TAC meeting was held on February 2nd and a variety of topics were covered. There is a known bug in ArcMap 10.4.1 that does not allow a user to print while consuming web services. DTI has escalated this issue with Esri, since they were told the bug is fixed in 10.5 but there will not be a patch for 10.4.x users. The issue is not everyone can move to 10.5 to fix this issue. It was noted this printing issue is not present in 10.3 nor in ArcGIS Pro.

DTI is looking at revamping the FirstMap Open Data site to include search functions that permit the return of results from neighboring states. There will most likely be different search buttons so as not to confuse the users.

DTI will be working with a few GIS professionals to look for Best Practices for Web Map Apps. These best practices would provide guidance and standards for publishing Web Map Apps to the FirstMap Gallery.

FirstMap is looking into creating Map templates with a State Centric look, along the lines of a standard look and feel, to provide consistency.

Mike also reported they are looking into a license for full motion video. If you're interested please contact Mike Townshend.

DTI has started a UAV (drone) program and have 2 licensed drone pilots. They are participating in the State steering committee on UAV use. It is anticipated that this will be a service offering from DTI to state agencies who don't have UAV's of their own.

FirstMap Update

Kim Cloud provided a FirstMap update. FirstMap is upgrading to ArcGIS License Server to 10.5 on Friday February 10th after 5 pm. A security patch will be applied on February 24, 2017 after 5 pm. Kim

announced that DTI now has a GeoEvent Extension which allows the use of live feeds from JSON feeds – such as weather, traffic, etc. Although this is not included in our ELA and we need to pay for it, the FirstMap team is interested to see what agencies have interest in this extension. Contact Kim Cloud with any interest. Nicole Minni suggested Kim reach out to Dave Racca at UD to see how he manipulates the traffic data. Megan Nehrbas indicated Sussex County would be interested for use with the paramedics. FirstMap will need to investigate whether there would be load issues associated with this extension before launching it to the public.

Nicole asked if FirstMap will be able to put local town data in their services. Miriam and Mike both agreed that data can be put into FirstMap. It would need to go through Miriam at the Office of State Planning to get into FirstMap.

Miriam indicated that she and Mike will be presenting at the Sussex County Association of Towns on March 1st as part of the FirstMap Road Show. No other road shows have been scheduled but the team is looking into one for Sussex County in the beach area. Miriam noted they are also discussing having a workshop for municipalities through UD's IPA group.

As always if you experience issues, please contact the team at FirstMap@state.de.us.

Presentation – DNREC Watershed Stewardship – Flood Data Tool

Michael Powell of DNREC Watershed Stewardship introduced a new tool they will be rolling out for training, the Flood Data Tool. Michael indicated they are looking for locations to hold a hands-on workshop. Several offers were made for space: Megan Nehrbas indicated Sussex County has a training facility and DTI also has a training facility. Michael and Miriam will work together to schedule dates and locations and promote the workshop.

Open Comment Period

Dave Bennett (DTI) announced that FirstMap is seeking a metadata intern and the position is posted on DTI's website if anyone knows of interested parties.

Danielle Lamborn (Kent County) the next eDUG meeting is scheduled for April 5, 2017. They are looking for a local presentation, contact Danielle if you're interested in presenting.

Miriam Pomilio (OSPC) reminded attendees of a few upcoming GIS conferences and events in the Region

- Fed UC – February 13-14 – Washington DC – Olena Smith at UD is attending. Joel Marshall from Sussex County is attending the Developer Summit attached to the Fed UC
- Esri US – July in San Diego – there are a few folks from our region attending.
- TUGIS – coming up in March – registration is open now.
- PAGIS – coming up in May
- NSGIC Mid-Year – late February – Kim Cloud and Miriam will be attending

Mark Biddle (DNREC) reported they are updating their state wide wetland mapping efforts.

Jay Hodny (City of Newark) mentioned they are using Collector App and looking into the use of GeoEvent server as well.

Nicole Minni (UD/WRC) reported she is working with DelDOT on a By-Ways Story Map.

Lori Brown (DNREC Watershed) reported that the Land Use/Land Cover dataset from the University of Vermont is still a work in progress but should be completed soon. She will make that available as soon as it's finalized.

Lillian Wang (DGS) mentioned that the Delaware Geological Survey will be holding their annual Symposium April 21st and this year it will be a field trip. She also mentioned she has taken the DGS Annual Report and created a really cool Story Map instead of a PDF. Debbie Sullivan indicated she's reviewed it and it's an excellent report.

Bill Seybold (DDA Forestry) indicated they are looking at Stewardship data and will be revising and updating the Big Trees of Delaware. If you know of a big tree contact Bill directly.

Alice Guerrant (Historic Preservation) – reported that there is a glitch in the National Register of Historic Places web service and is currently not available but it's being fixed.

Mark Nowak (City of Dover) reported they are creating on a Jet Truck protocol and using Collector to do reports for the city.

Mary Raley-Hall (DelDOT) indicated she is working with water resources registry for Delaware. She visited Washington College to see how they are doing the same work in Maryland.

Brian Ross (National Guard) reported they are using a combination of ArcGIS and AutoCAD and he is new to them and looks forward to working with the DGDC group.

Megan Nehrbas (Sussex County) announced they've digitized about 450 paper zoning maps and now have an "unofficial" GIS zoning layer for the County. It is publicly available for comment at this time. This layer needs to be approved by council before it becomes official. Sussex County is updating their Comprehensive Plan and it will become part of that plan. They are also going through a CAMA conversion and anticipate that being live at the end of this Fiscal Year. Sussex is also converting all their sewer data into GIS format as well as other legacy data that only existed in paper format.

Matt Laick (DSHS) announced that they are looking to develop a building footprint dataset for the entire state and he is looking for funding. DSHS is also scheduled to have Pictometry fly new ortho imagery this spring for the Public Safety users which includes oblique imagery.

Mike Townshend (DTI) reported that the Parks app that was demonstrated at DGDC a few meetings ago has been rebranded to "Play OutsiDE" and will be released soon. Look for an announcement. He has also been working with Forestry to migrate their preservation data from Access to ArcGIS format.

Danielle Lamborn (Kent County) they are working on their new CAMA system and Esri is scheduled to be onsite to install workflow manager.

Bill Docca (Delaware Electric Coop) reported they are mapping the fiber optics and are using ArcGIS for this effort as well as to show progress to the Company.

Kim Cloud (DTI) reported she has been working with DEMA on a radiological exercise application to show situational awareness in a dashboard.

Erica McMaster (Washington College) reported they are developing a Mobil App to find and use local products to assist Farmers to get their information out using USDA funding to develop. She is looking for additional data to expand this into Delaware. Anyone with information, please contact Erica directly. Nicole Minni indicated she has a list from the Healthy Community Initiative she can provide.

Debbie Sullivan (DNREC/DTI) indicated that eDUG is looking for local presentations for their upcoming meeting in April.

Naomi Bates (DGS) sent in an announcement that the new Sea Level Inundation data is now available on FirstMap.

Next Meeting

The next DGDC Quarterly meeting will be Thursday May 11, 2017 at the Kent County Administrative Complex, Room 220 and start at 9:00 am.

Other meetings this year will be held on August 10 and November 9 at the same location and time.

Adjournment

Carl Yetter made a motion to adjourn the meeting and it was seconded by Matt Laick. The meeting was adjourned at 11:00 am.

State of Delaware
The Official Website of the First State

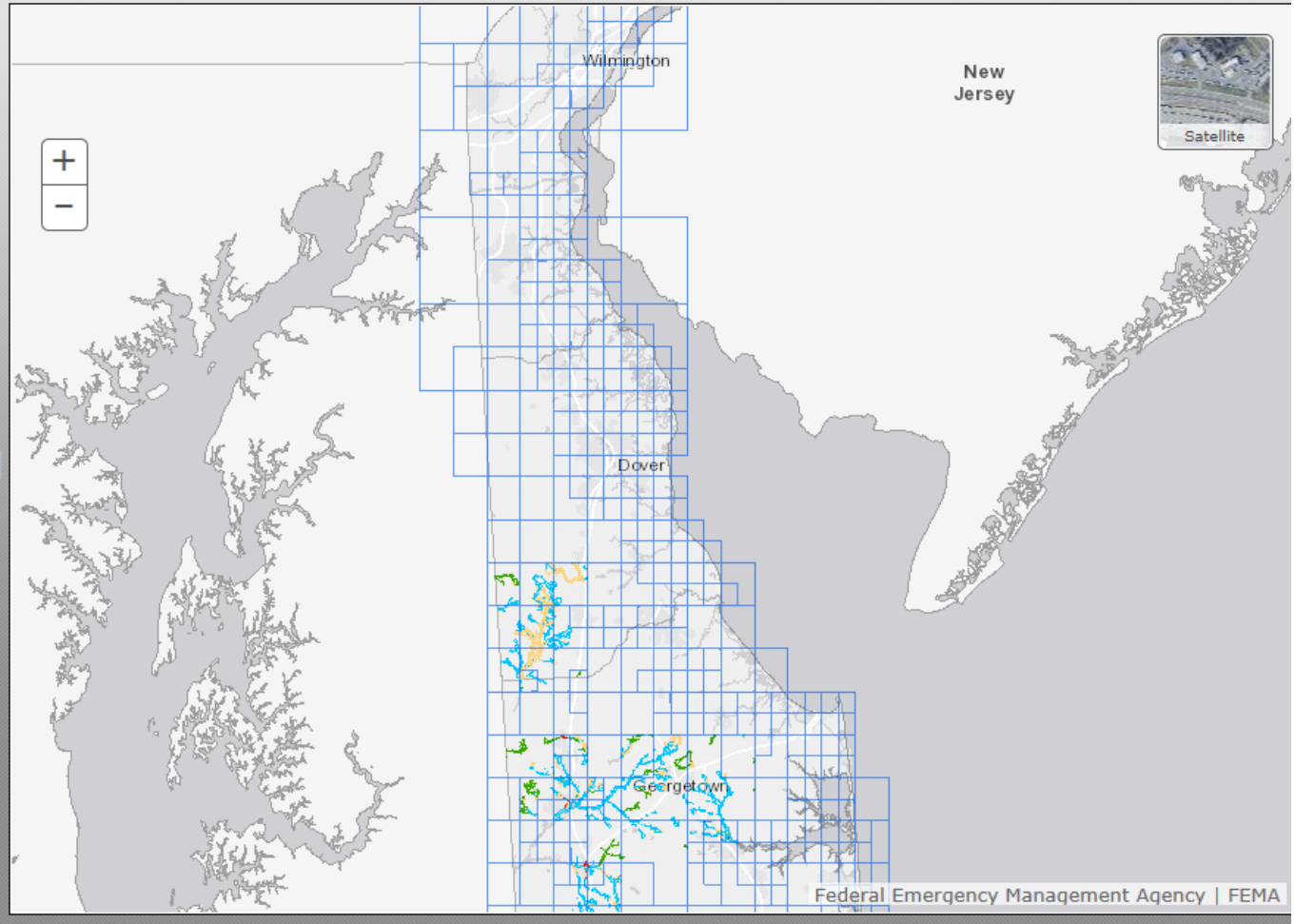
Home

Delaware Flood Planning Tool

Overview

The Delaware Department of Natural Resources and Environmental Control (DNREC) Flood Tool is an interactive web map application. This tool is designed to aid you in researching your flood risk in the state of Delaware. It is designed to provide floodplain managers, insurance agents, developers, real estate agents, engineers, surveyors, local planners and citizens with an effective means by which to make informed decisions about the degree of flood risk for a specific area or property. Map features are connected to geospatial databases that may be queried by users in order to obtain pertinent information that may otherwise be difficult to obtain or relate to specific

Search
Legend
Results
Print
Contacts
Getting Started/Help



What is the Delaware Flood Planning Tool?

- It is an interactive web map application designed to provide the user with information that may otherwise be difficult to obtain, such as the water surface elevation for model-backed A Zones and downloadable HEC-RAS models.

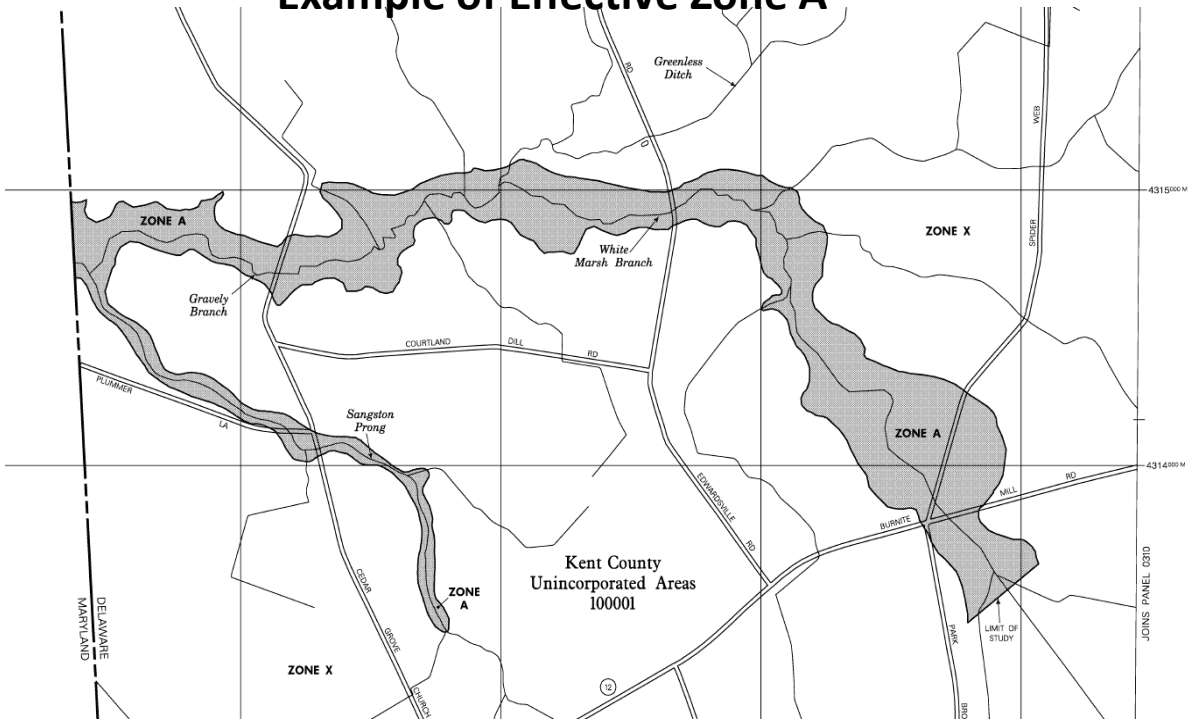
Why did we develop it?

- Preliminary Maps were issued for Kent and Sussex Counties on February 15, 2016 and Preliminary Maps will be issued for New Castle County soon.
- A primary objective of these studies was to convert unmodeled A Zones to Limited Detail (AE Zone) or model-backed A Zones.
- To be able to take advantage of the Limited Detail and Model-Backed A studies performed the models and water surface elevations for these studies need to be accessible.

- NFIP requirements in Zone A - 60.3(b)(4)
  - Obtain, review, and reasonably utilize any BFE and floodway data available.
  - In the absence of FEMA BFE data and floodway data, consider other available data as basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidental structures to or above base flood level.

- FEMA Floodplain Management Bulletin 1-98
  - In Zone A, communities are required to utilize the data from a draft or preliminary FIS as best available data after the LFD has been issued.

Example of Effective Zone A



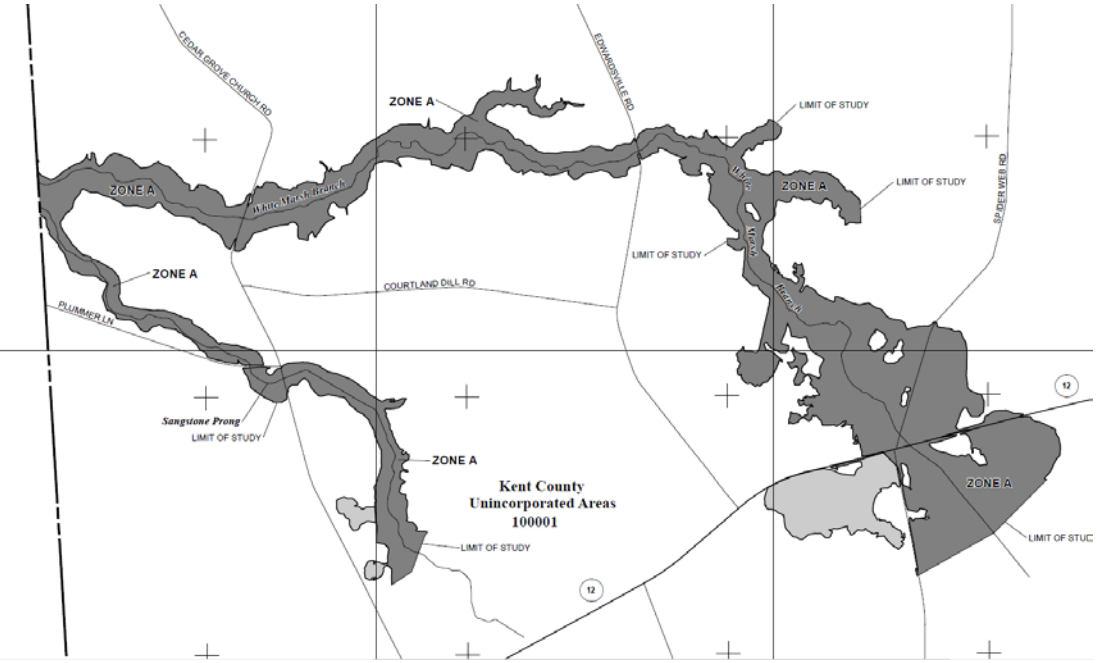
Most often based on:

- Older topographic maps
- Soils analysis and mapping
- Historical information and high water marks

Disadvantage:

- No modeling or water surface elevation data is available

Example of Preliminary Zone A



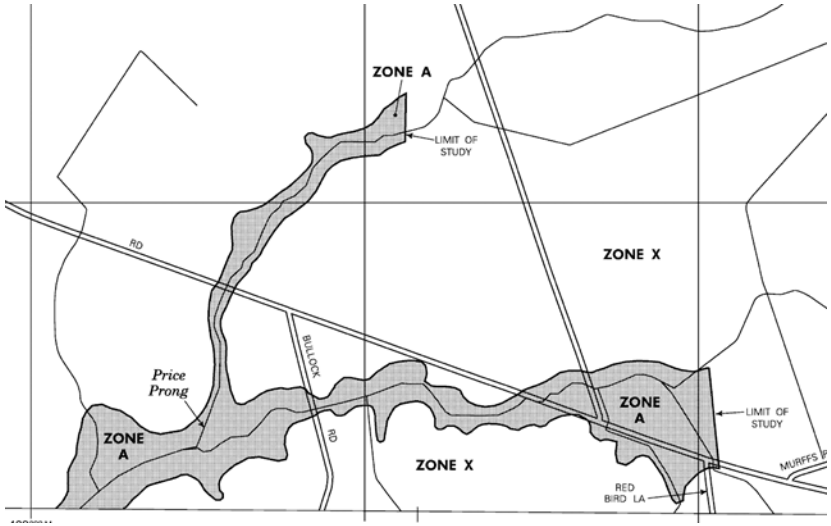
Model-Backed A Zone:

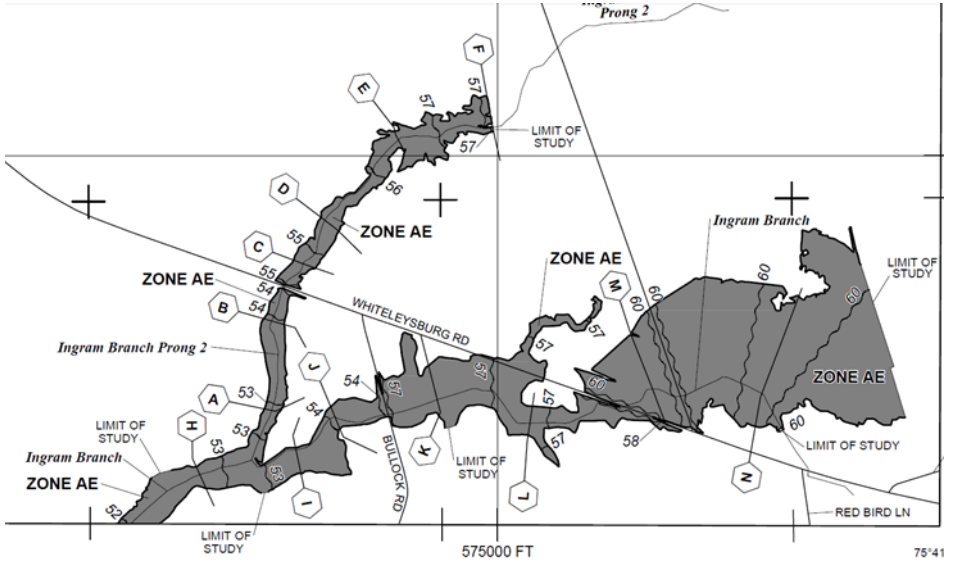
- Supported by automated hydrologic and hydraulic analyses
- Water surface elevation information and models are available
- Floodplain Administrators can use WSELs from model as best available data for permitting in Zone A

Disadvantages/Limitations:

- No water surface elevations or profiles are shown on products
- no hydraulic structures (bridges/culverts/dams) are considered
- no reservoir routing/attenuation of flood discharges are incorporated
- no channel survey data are included
- Water Surface Elevations may be inaccurate especially near structures

Example of Effective Zone A Updated to a Zone AE





Limited Detailed Studies:

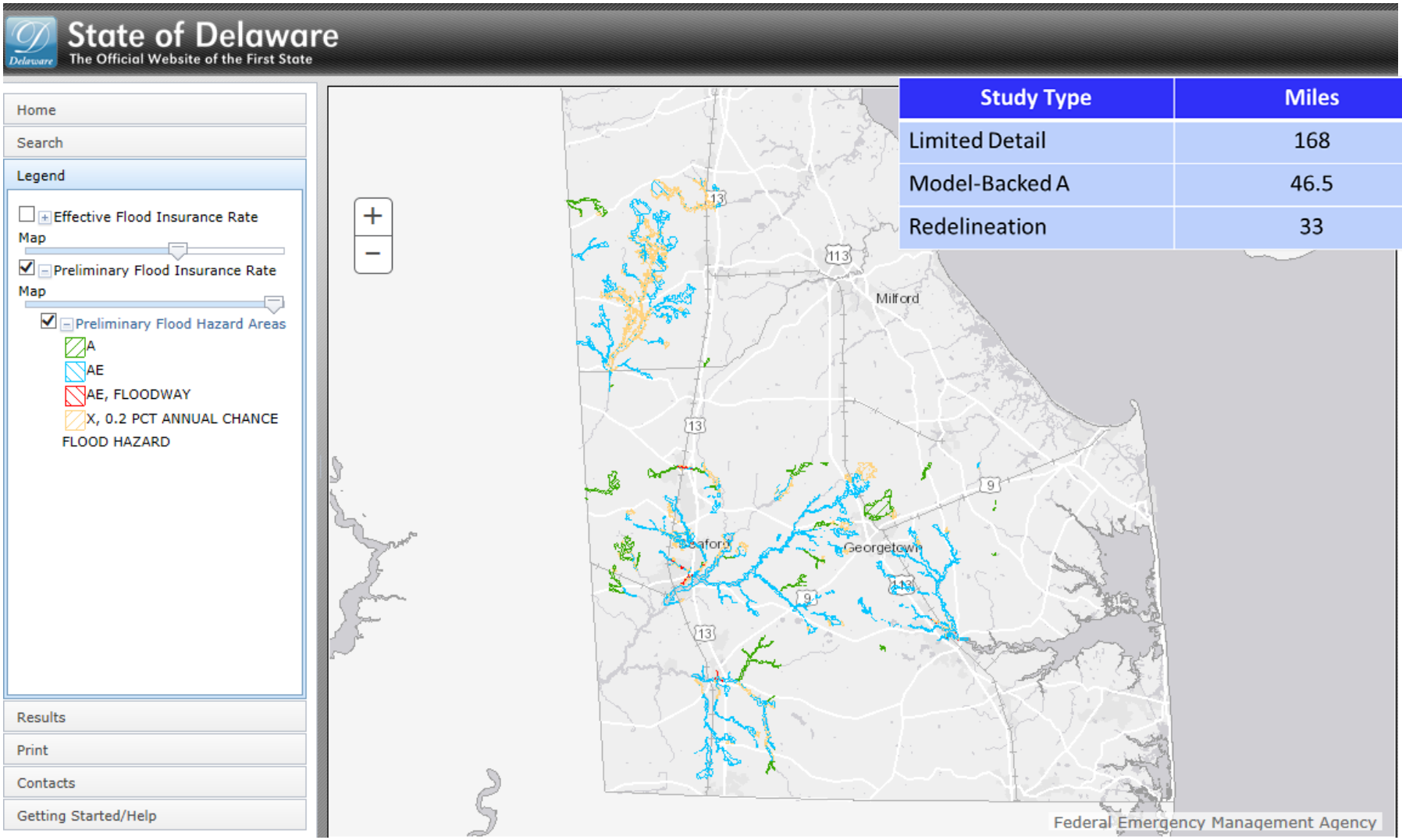
- Less expensive than a detailed study
- Base Flood Elevations are established and shown on the map
- Structures are included
- More detailed survey data can be added to model later

Disadvantages/Limitations:

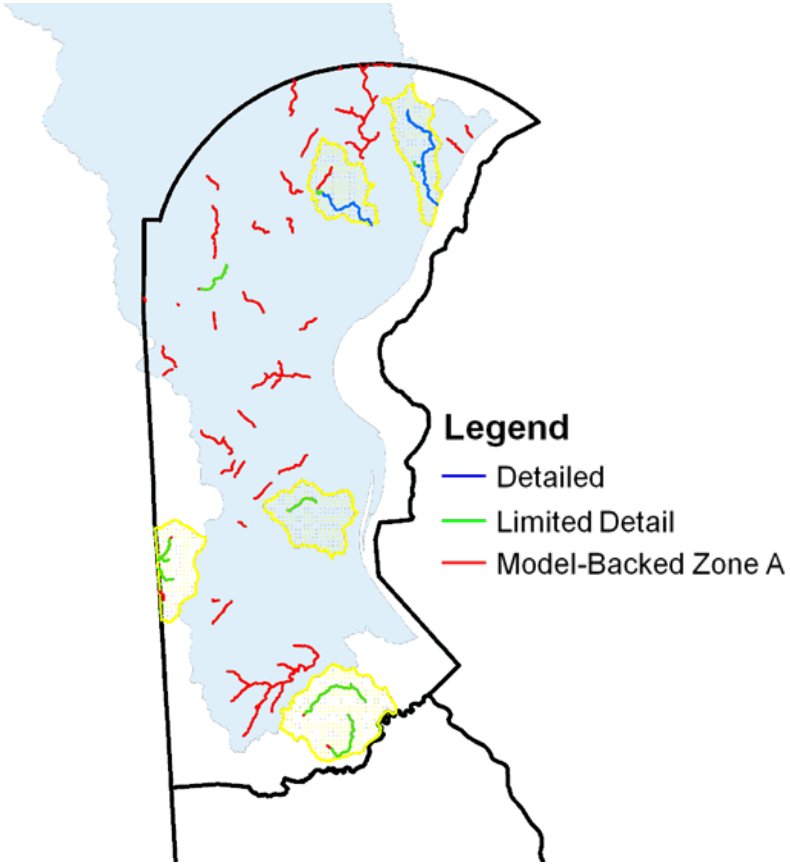
- No floodways
- Structures and channel cross sections are not surveyed

Model-Backed A Zone Studies (Shown in green) in Kent and Sussex Counties

Study Type	Miles
Limited Detail	168
Model-Backed A	46.5
Redelineation	33



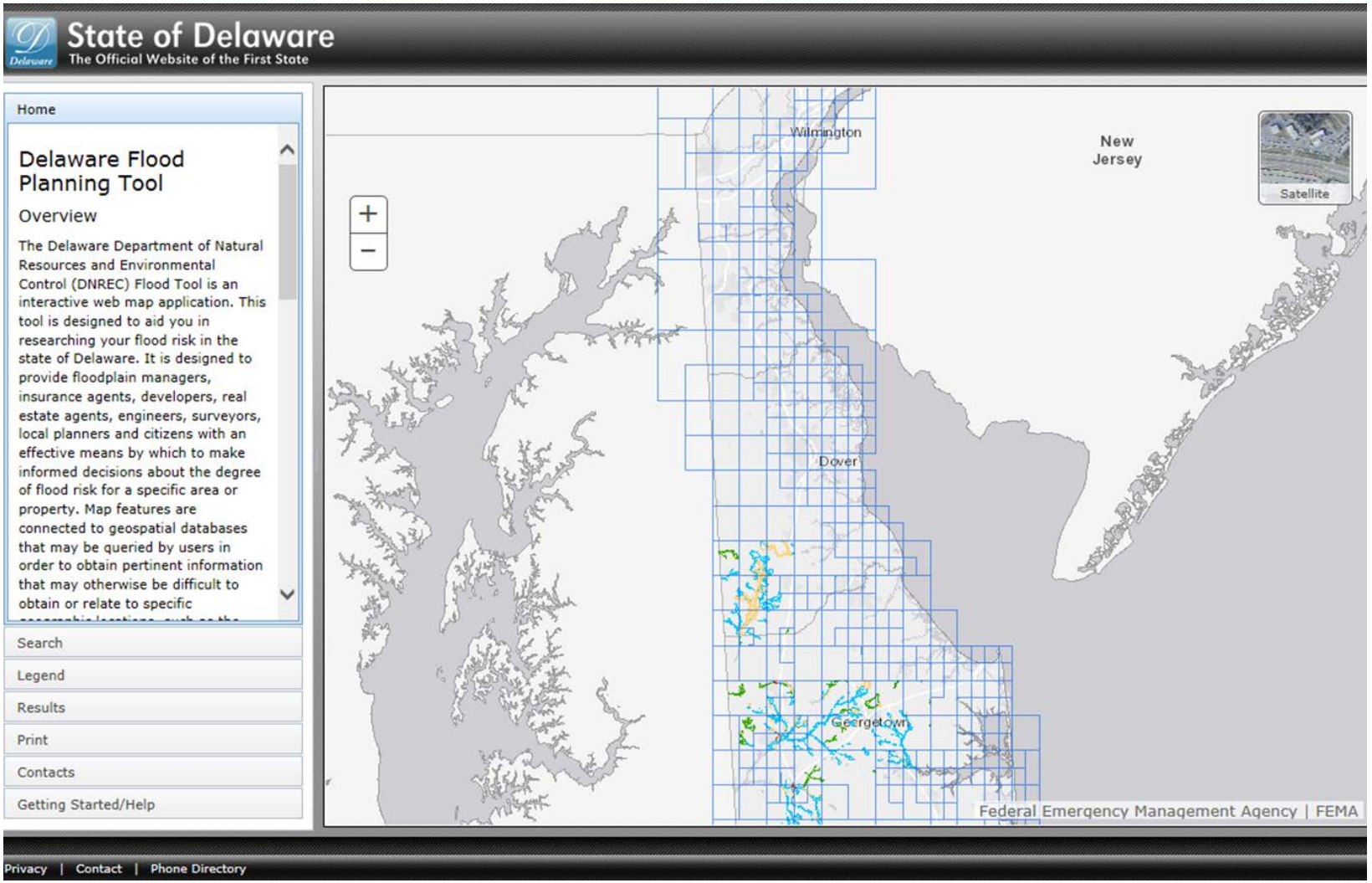
Model-Backed A Zone Studies in New Castle County



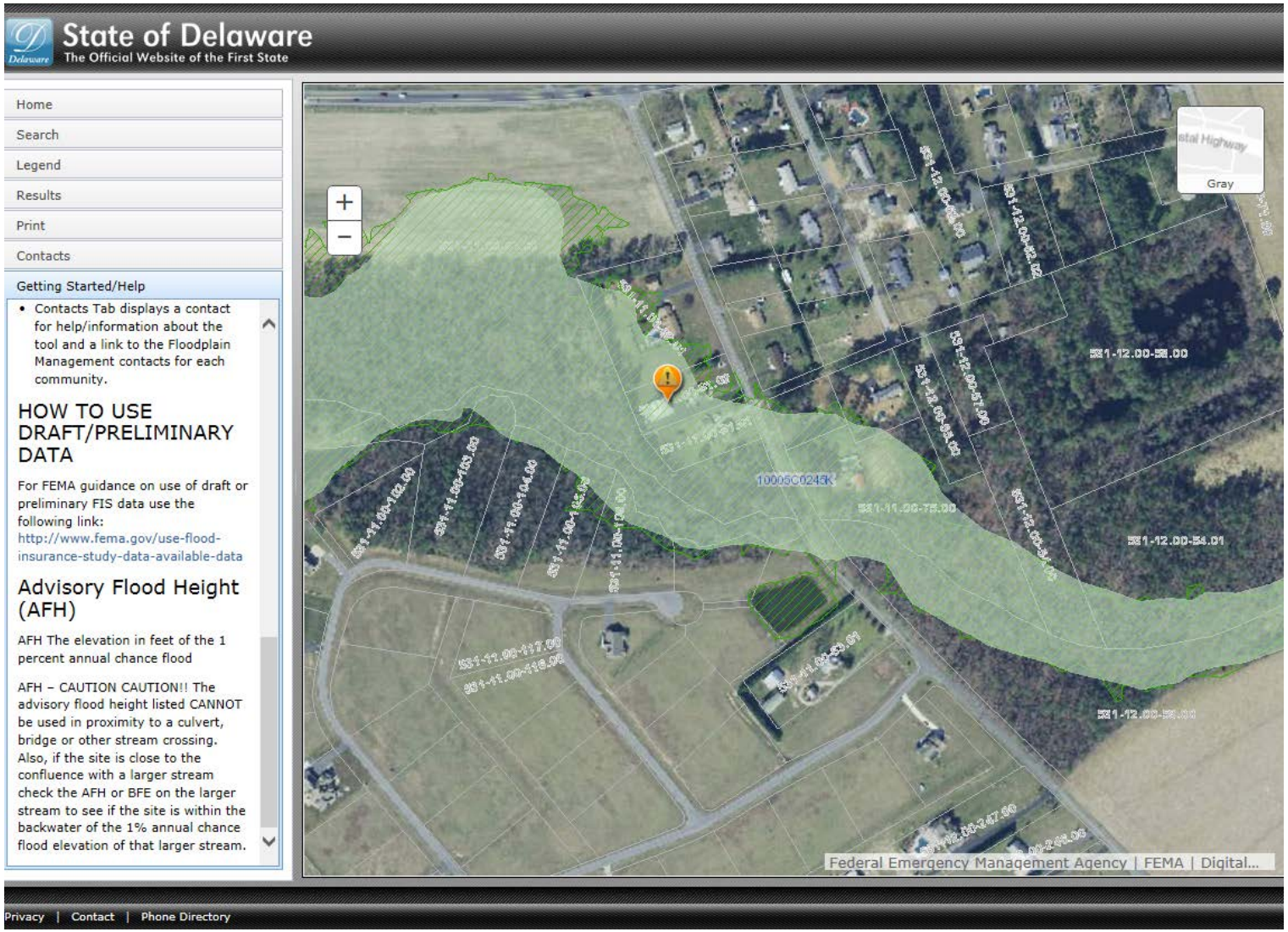
Ongoing Brandywine-Christina/ New Castle County Risk MAP Flood Studies*:

- Detailed = 12 mi
- Limited Detailed = 14 mi
- Model-Backed A = 63 mi

* Not incorporated into Flood Planning Tool yet

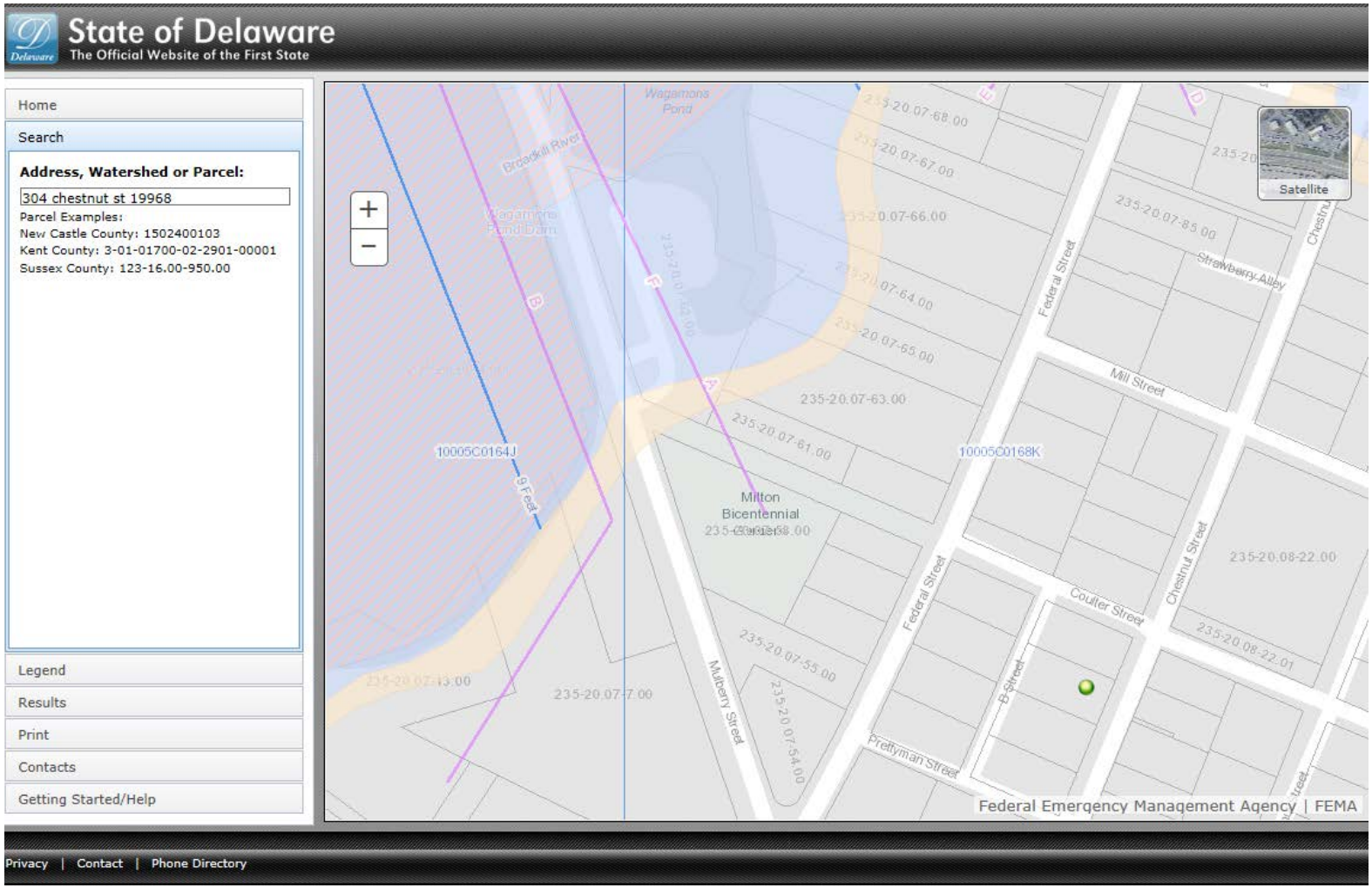


http://maps.dnrec.delaware.gov/FloodPlanning/default.html



<u>Getting Started/ Help Tab</u>

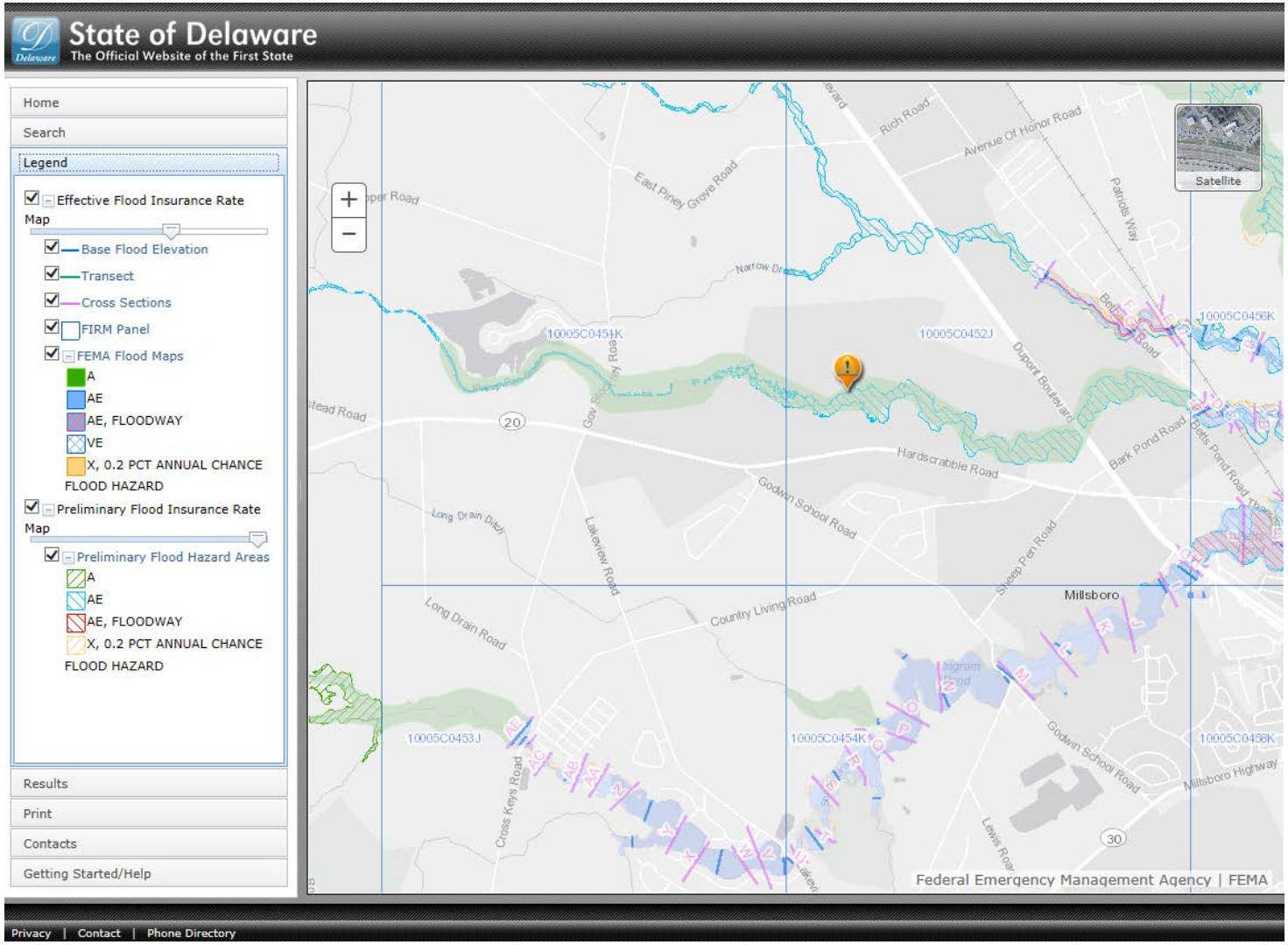
Provides information on how to use the tool, a link to FEMA guidance on the use of draft or preliminary data and information on the Advisory Flood Height (AFH)



Search Tool

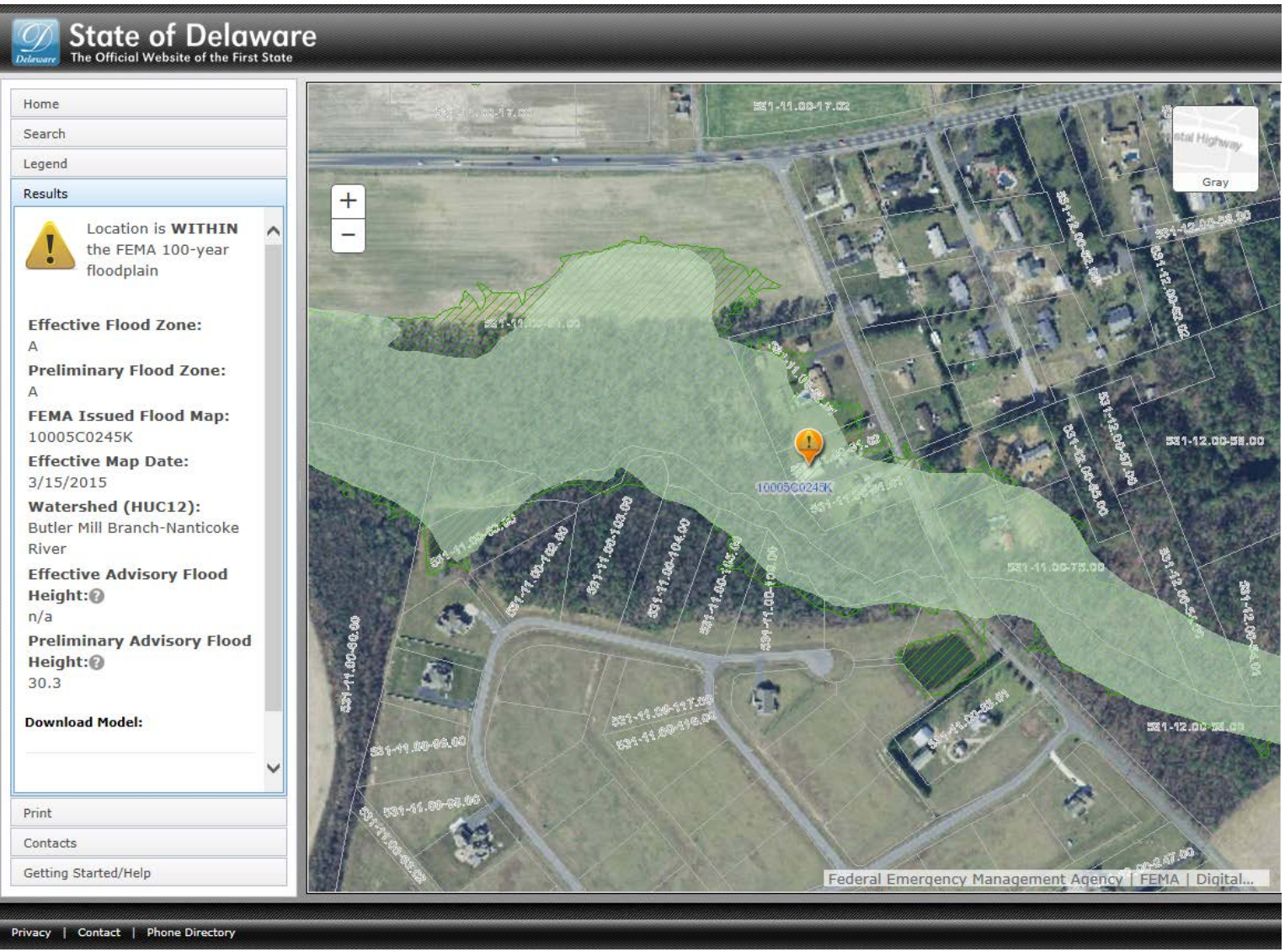
Search by:

- Address
- Watershed
- Parcel



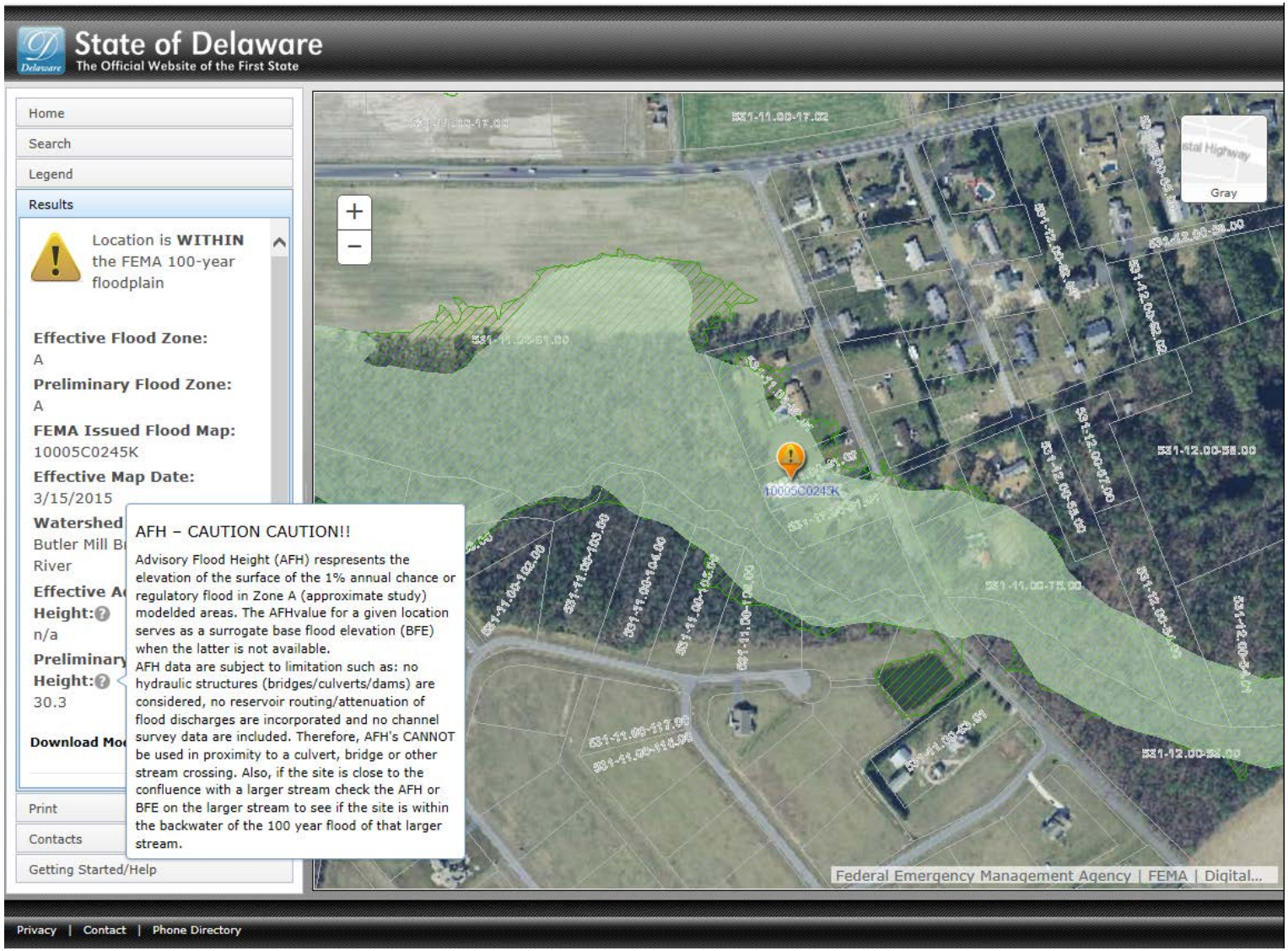
Legend

Ability to turn on and off layers and adjust the transparency



<u>Preliminary A Zone</u>

Queries an Advisory Flood Height for the location selected from the results of the model-backed A study



<u>Preliminary A Zone</u>

Queries an Advisory Flood Height for the location selected from the results of the model-backed A study

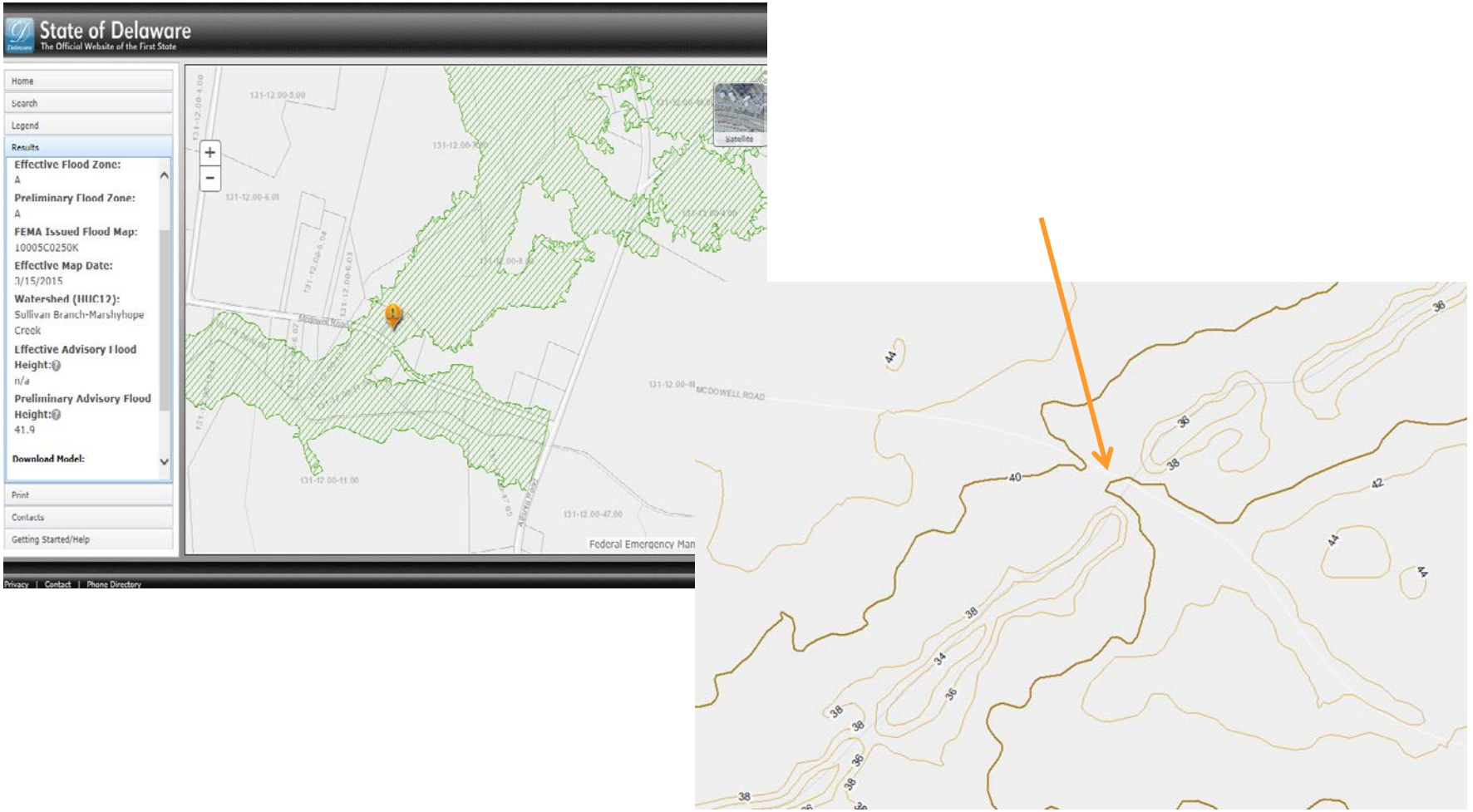
What is Advisory Flood Height?

Advisory Flood Height (AFH) represents the elevation of the surface of the 1% annual chance or regulatory flood in Zone A (approximate study) modeled areas. The AFH value for a given location serves as a surrogate base flood elevation (BFE) when the latter is not available.

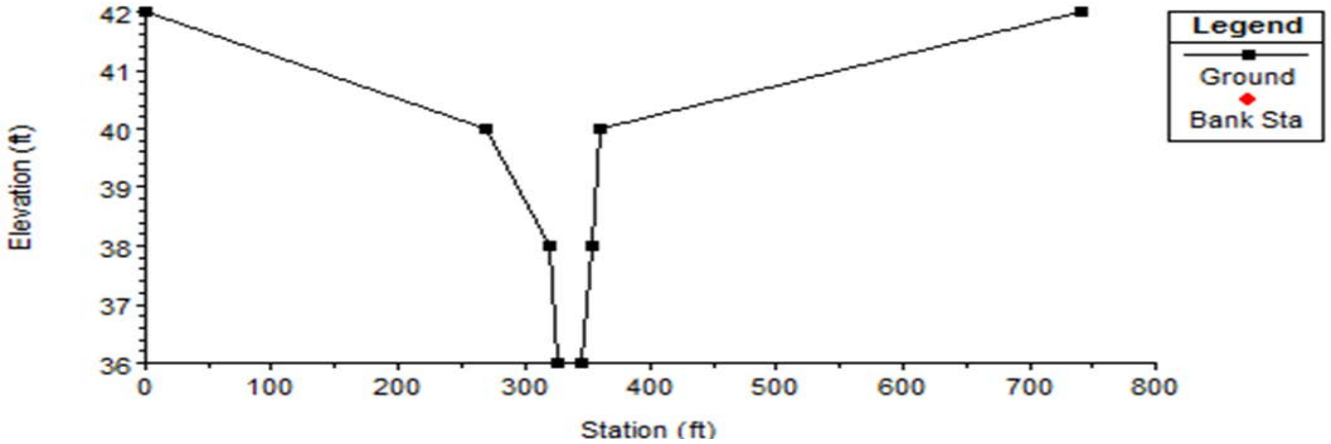
AFH data are subject to limitations such as: no hydraulic structures (bridges/culverts/dams) are considered, no reservoir routing/attenuation of flood discharges are incorporated and no channel survey data are included.

Therefore, the AFH listed CANNOT be used in proximity to a culvert, bridge or other stream crossing. Also, if the site is close to the confluence with a larger stream check the AFH or BFE on the larger stream to see if the site is within the backwater of the 1% annual chance flood elevation of that larger stream.

What does it mean when structures are not modeled?

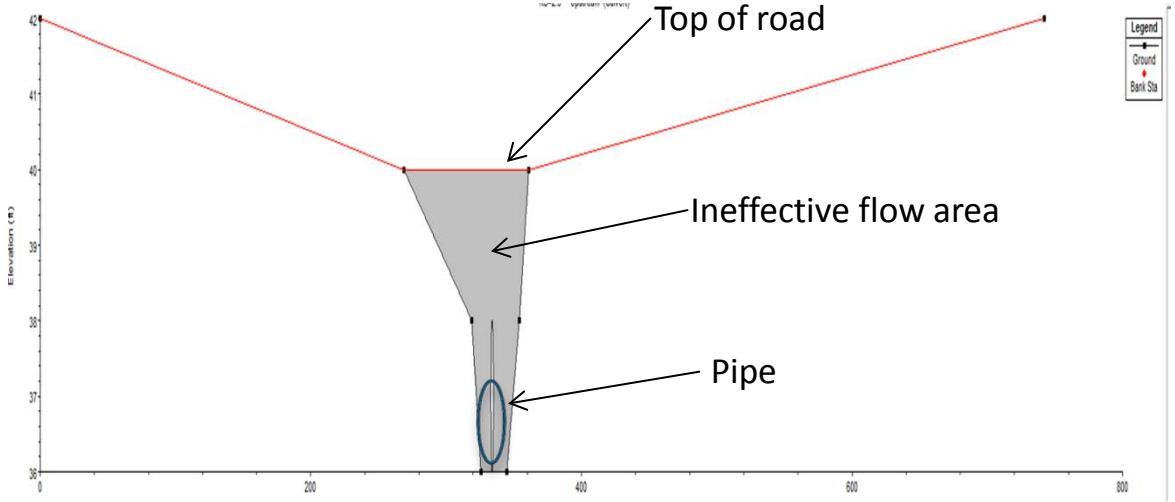


What does it mean when structures are not modeled?

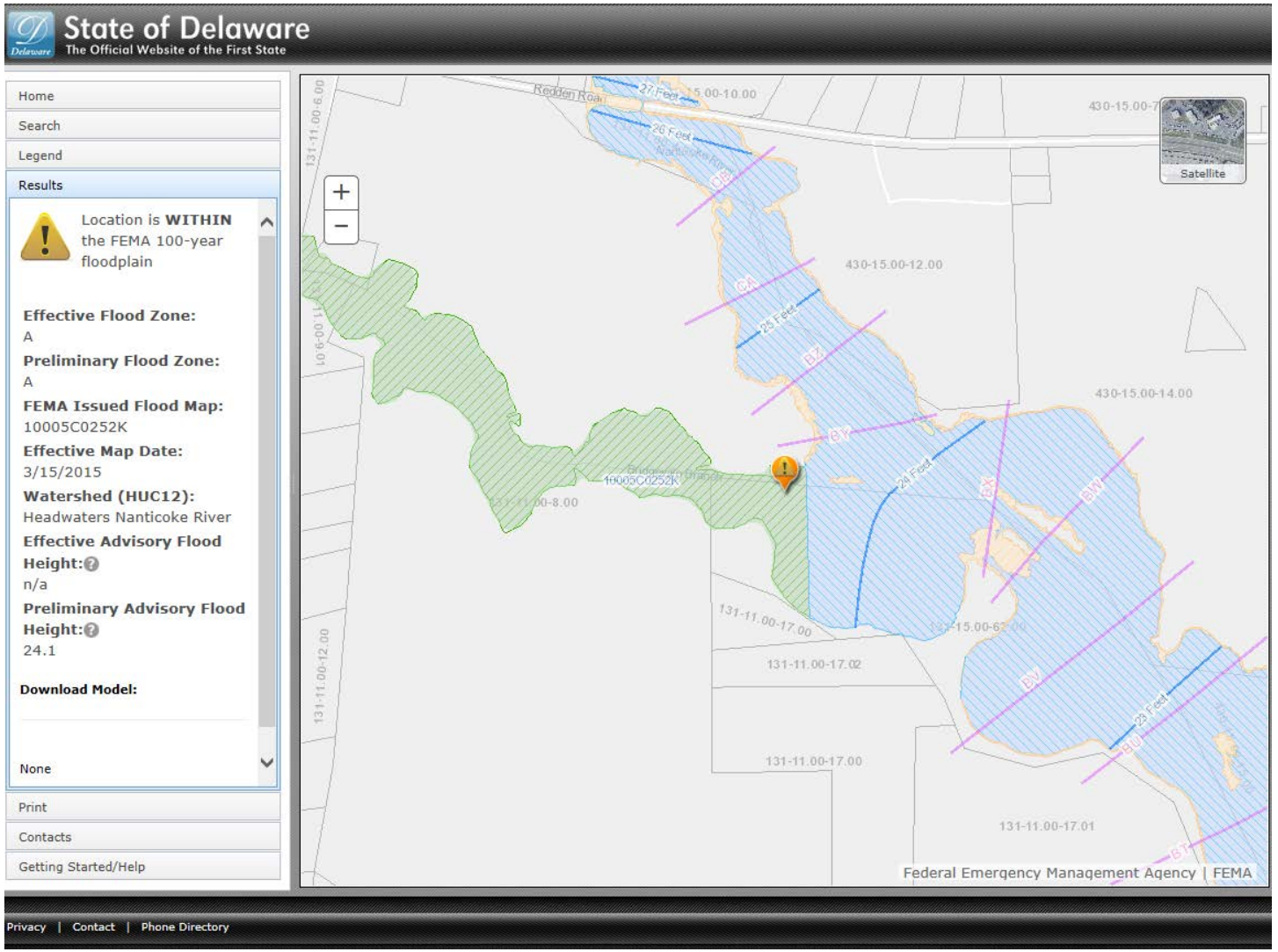


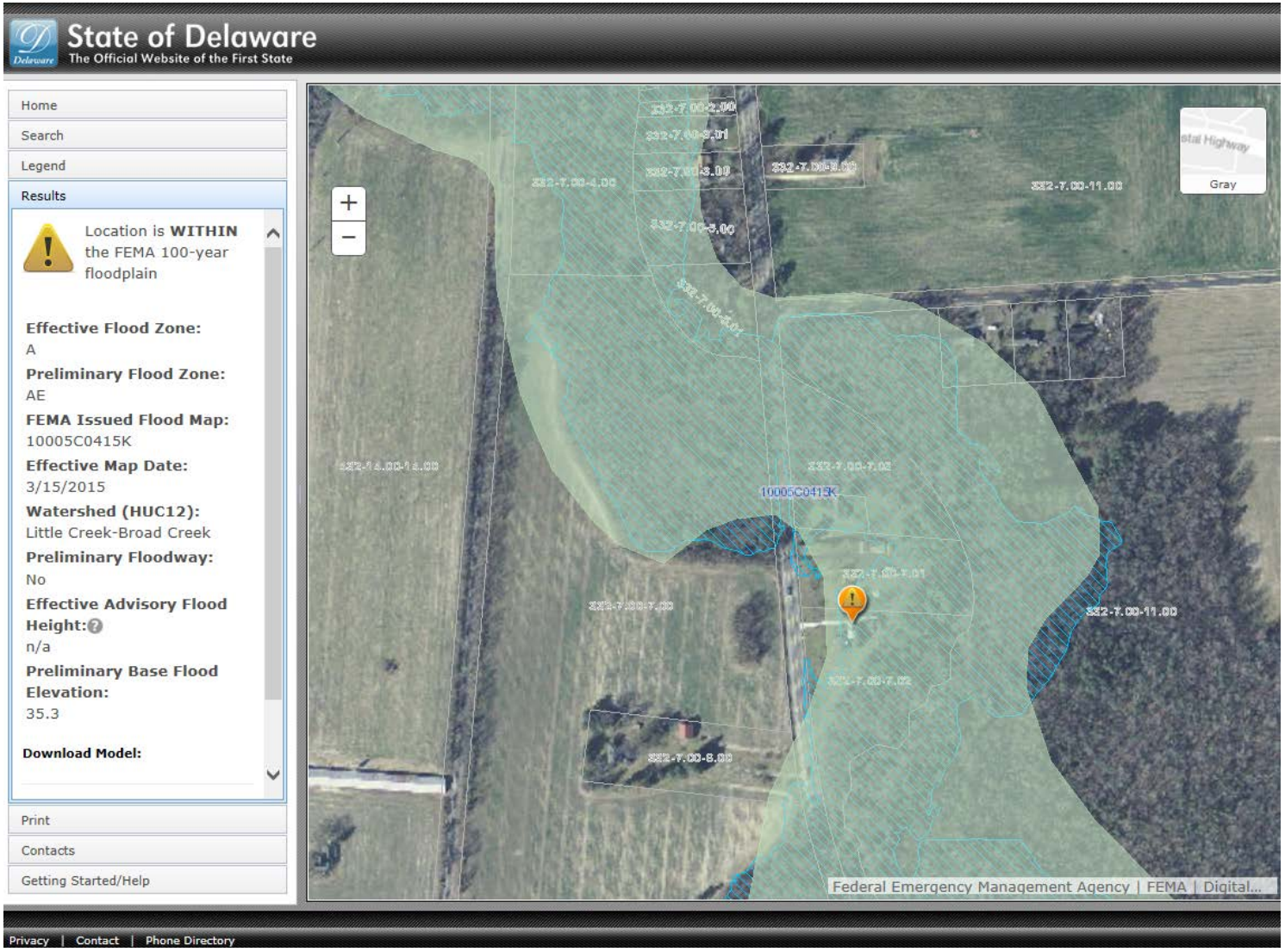
Model-Backed A studies are modeled as open channels with no obstructions

In reality these areas often have pipes and ineffective flow area that is not considered in the model and can affect water surface elevation



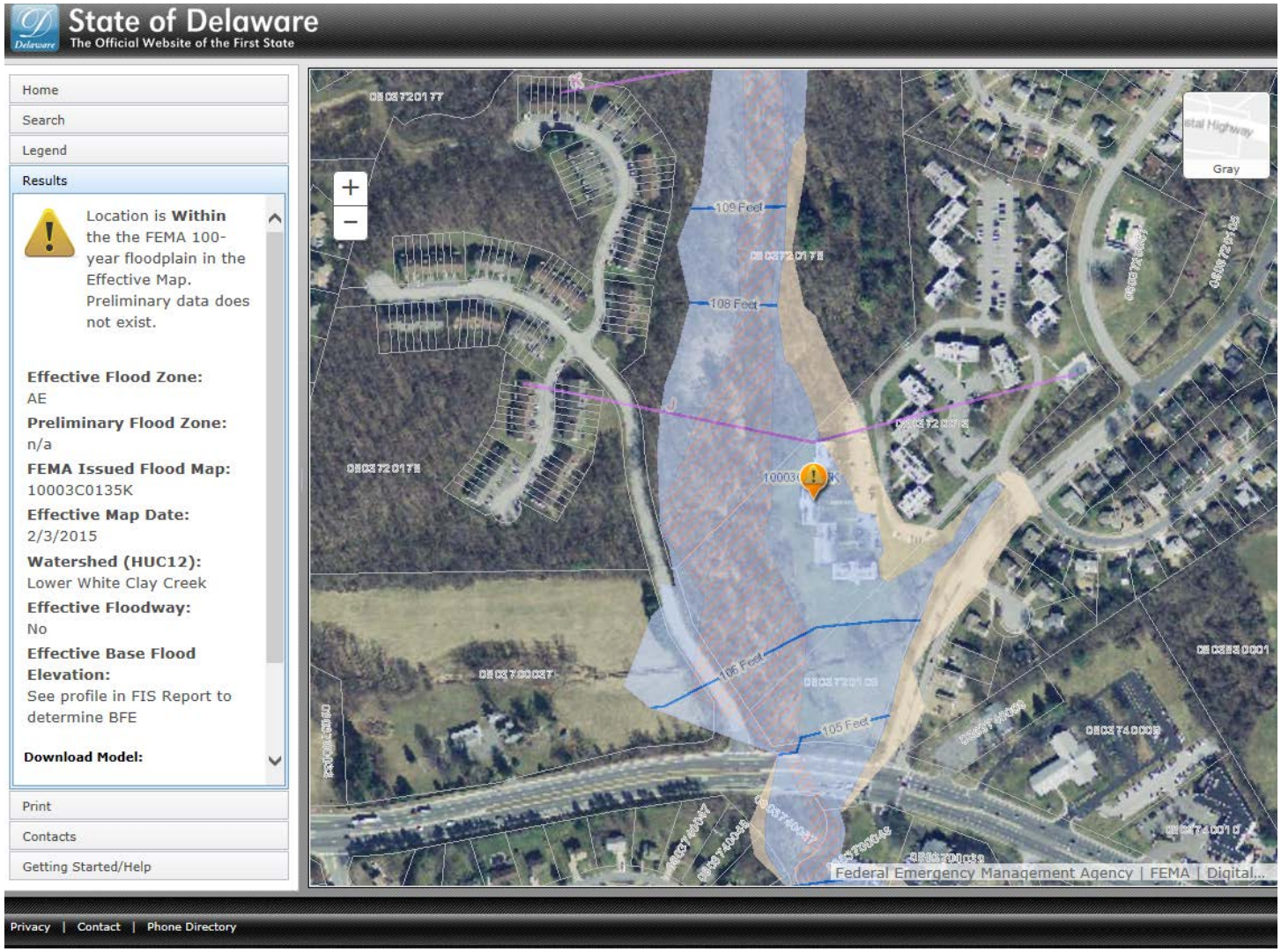
Example of a Confluence





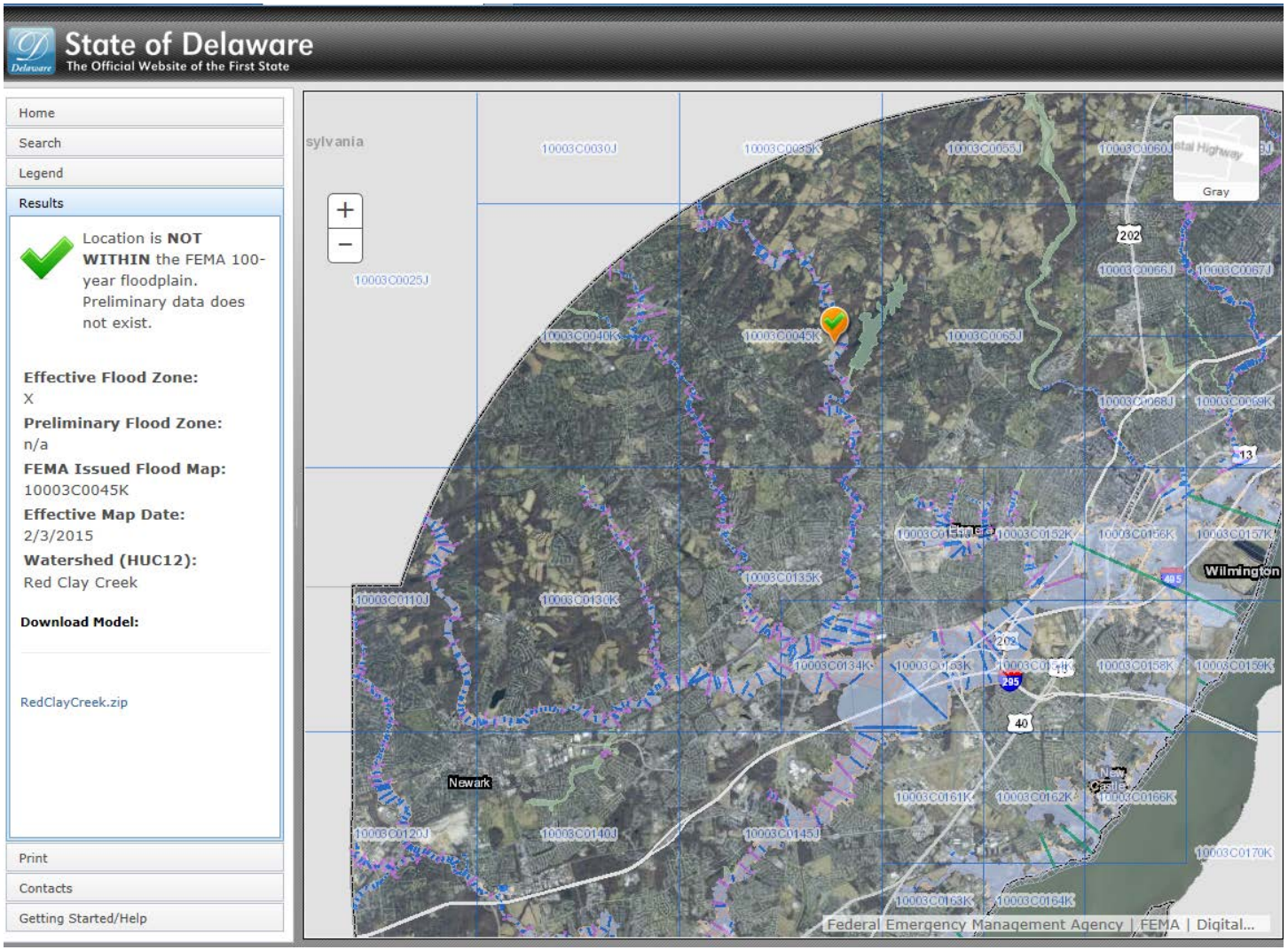
Preliminary AE Zone

Queries the Base Flood Elevation for the location selected from the results of the study

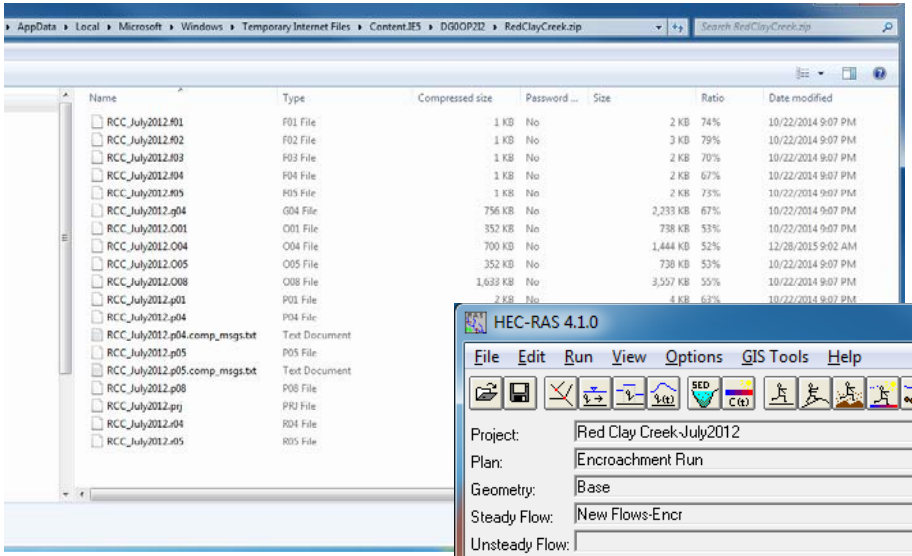


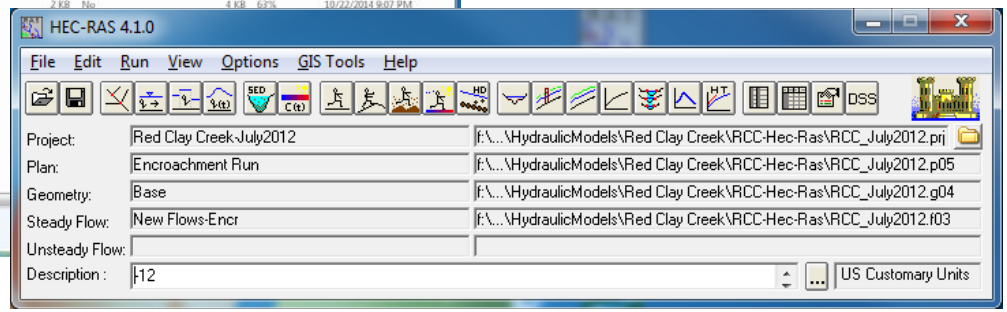
Effective AE Zone

Data from older studies cannot be queried and the Base Flood Elevation for the location selected needs to be determined by looking at the profile in the FIS report

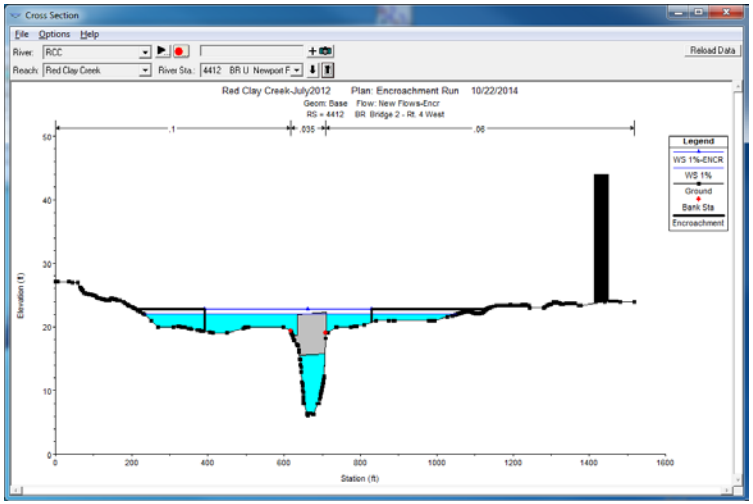


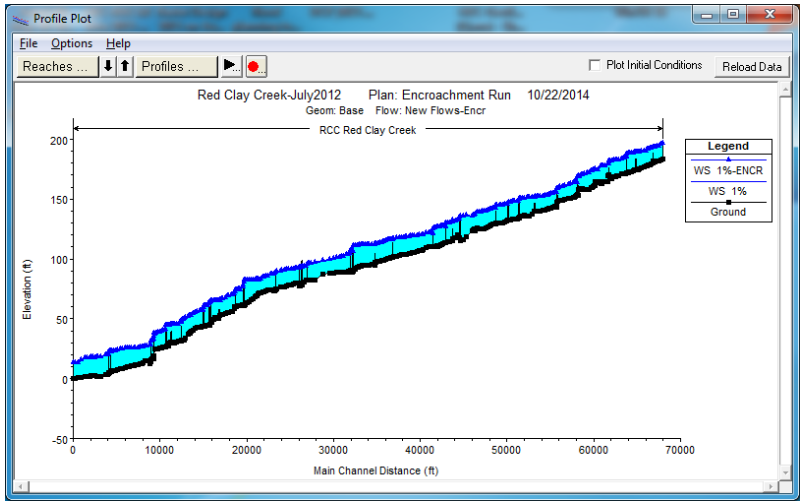
Ability to Link Effective Models and Make Them Immediately Available for Download

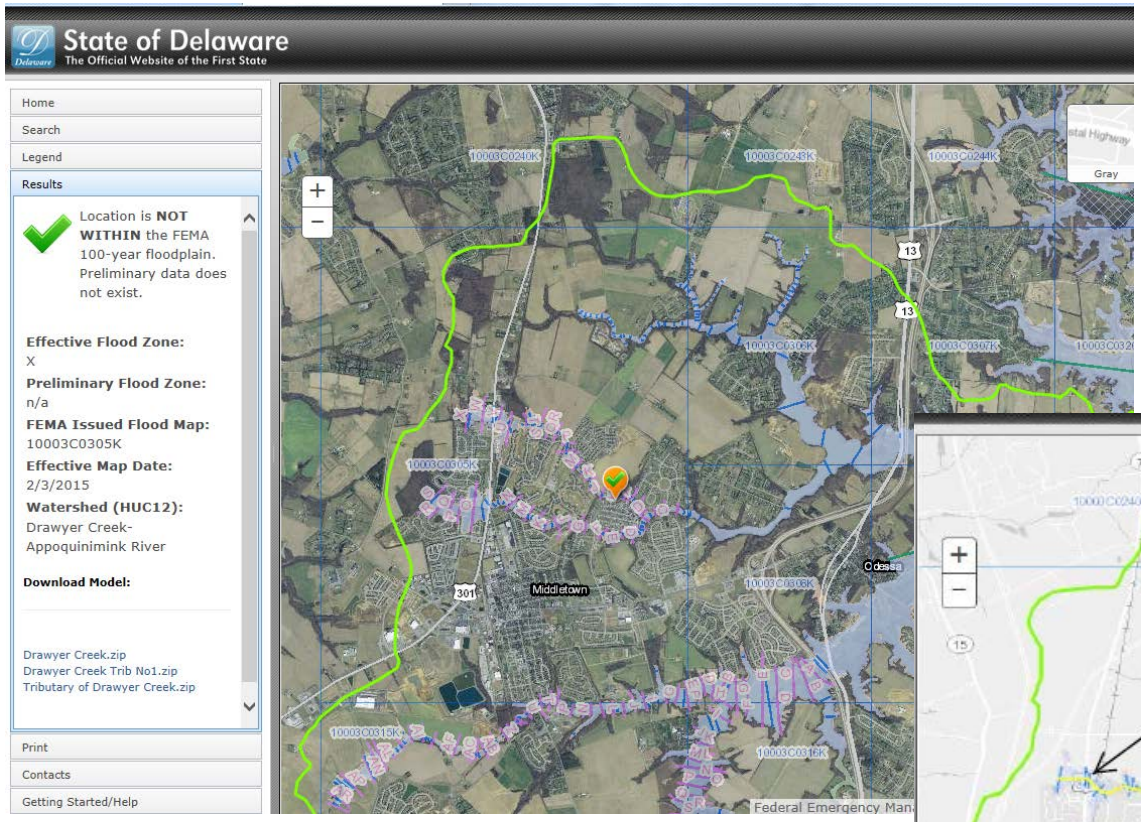




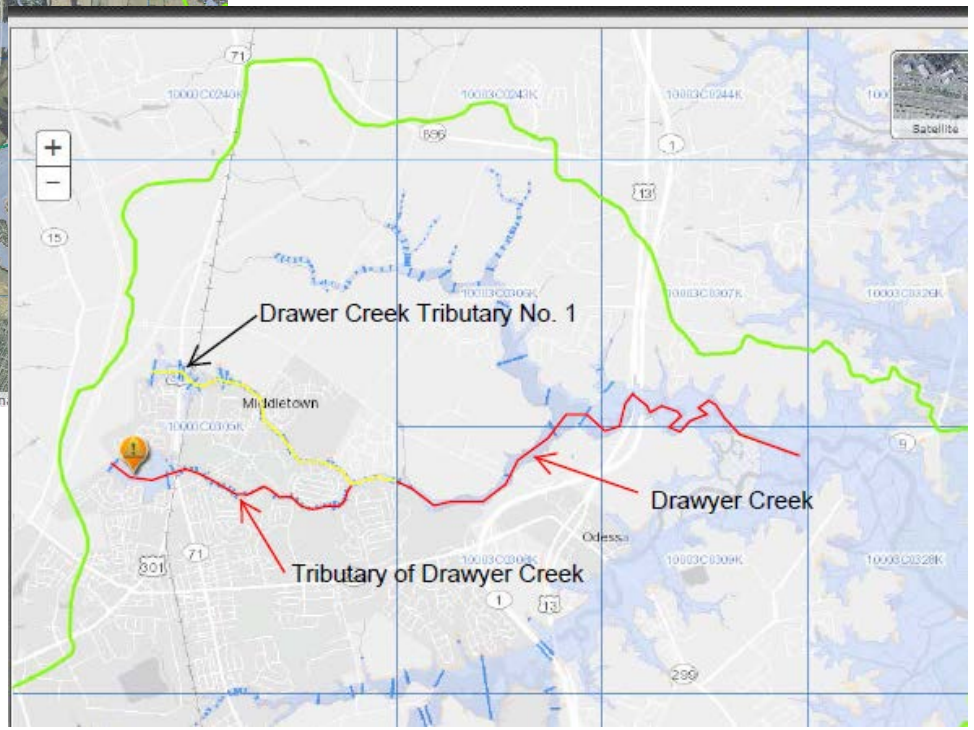
These models can then be utilized to make revisions for proposed project submissions.

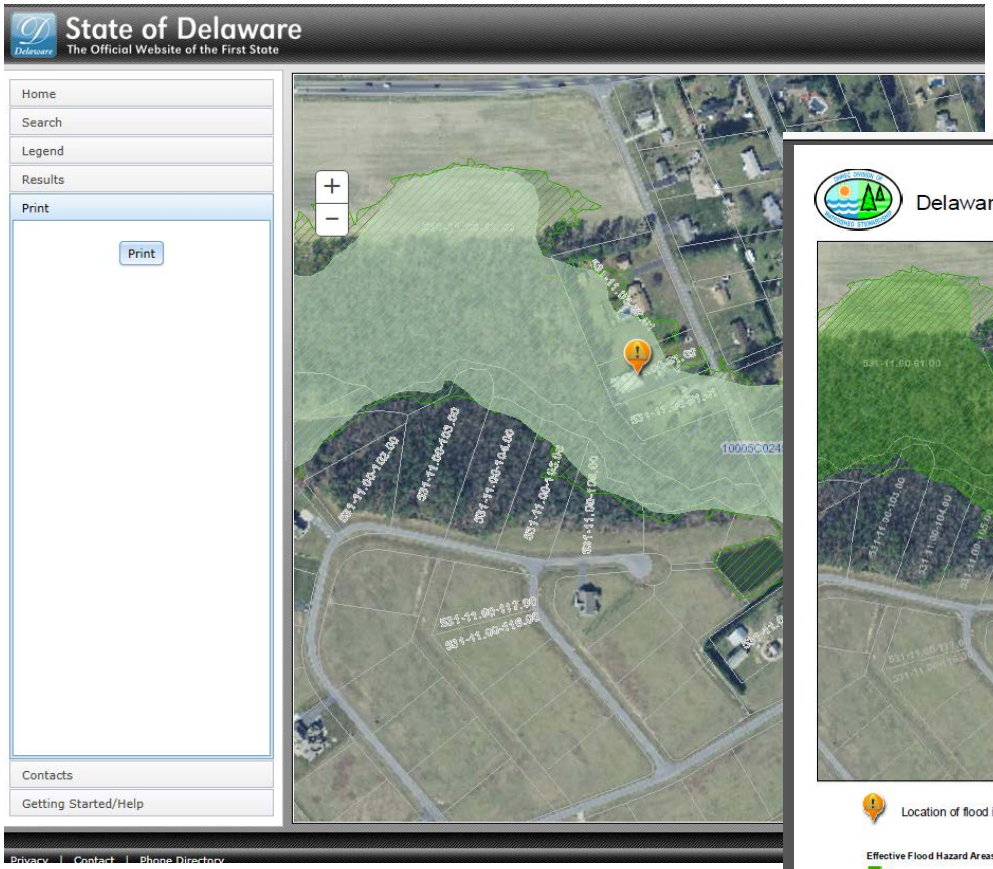


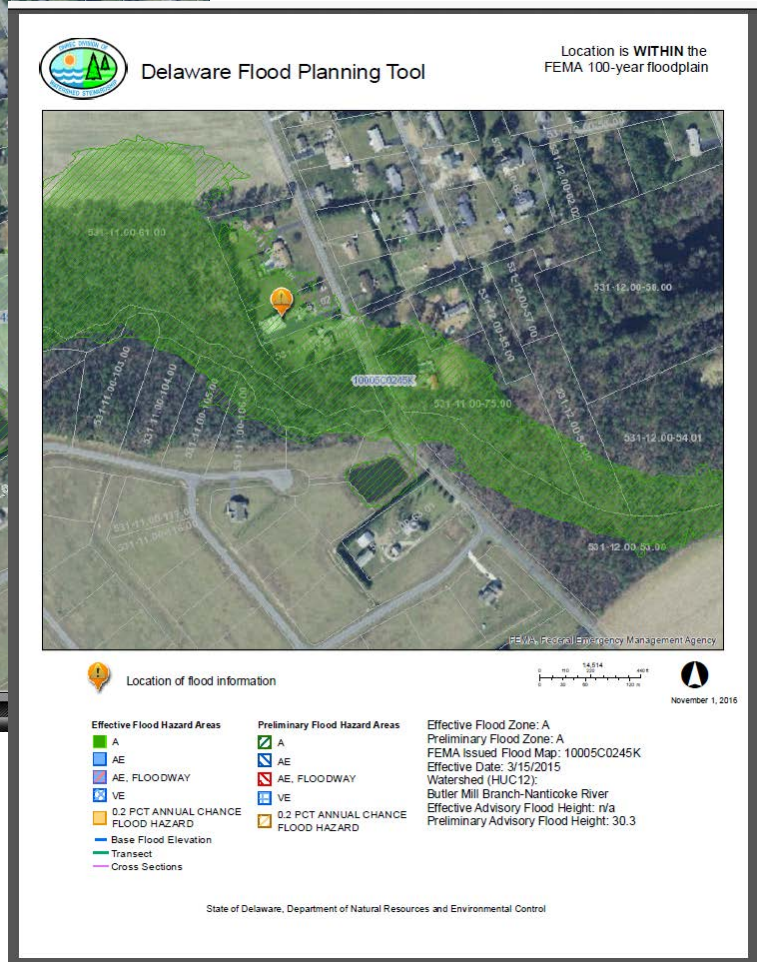




The models are associated with the FIRM panels and multiple models may be available for download.

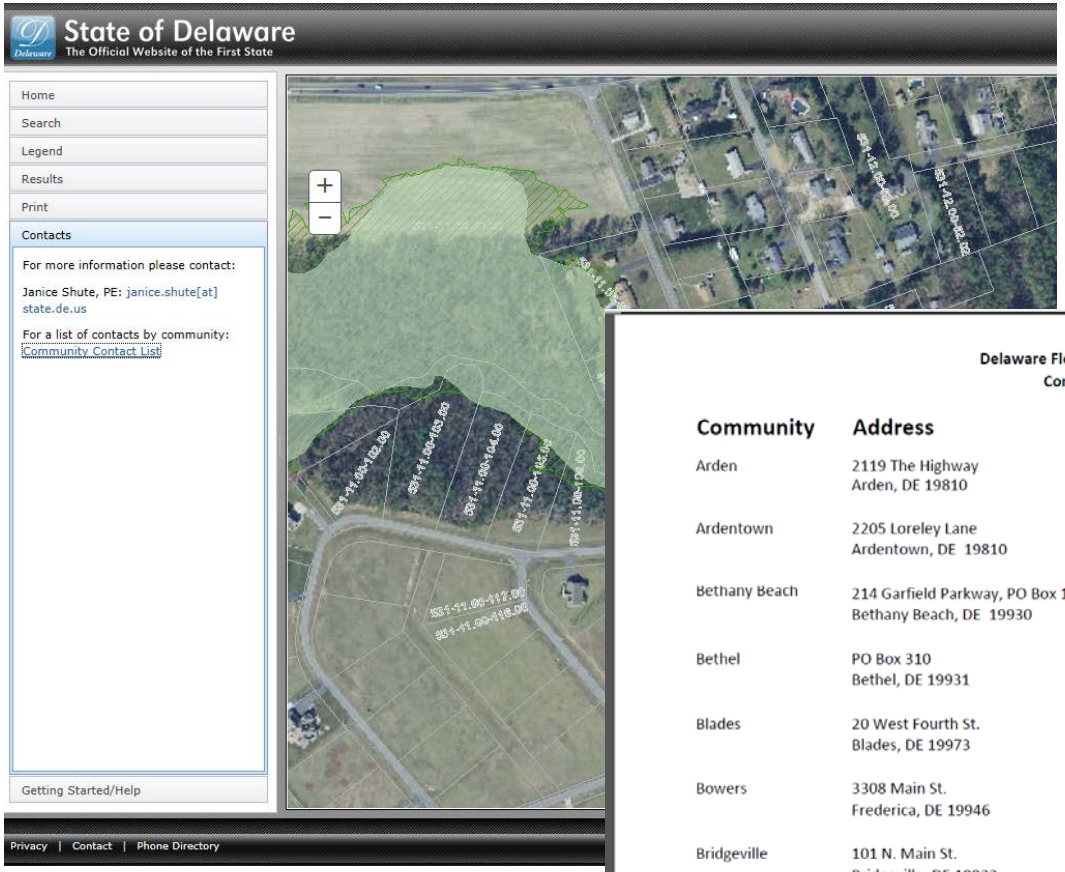






Print Tab

Generates a PDF that can be saved or printed



Delaware Flood Planning Tool
Contact List

Community	Address	Phone	Website
Arden	2119 The Highway Arden, DE 19810	475-3516	arden.delaware.gov
Ardentown	2205 Loreley Lane Ardentown, DE 19810	539-8011	
Bethany Beach	214 Garfield Parkway, PO Box 109 Bethany Beach, DE 19930	539-8011	townofbethanybeach.com
Bethel	PO Box 310 Bethel, DE 19931	877-8139	bethel.delaware.gov
Blades	20 West Fourth St. Blades, DE 19973	629-7366	blades.delaware.gov
Bowers	3308 Main St. Frederica, DE 19946	572-9000	bowsersbeach.delaware.gov
Bridgeville	101 N. Main St. Bridgeville, DE 19933	337-7135	bridgeville.delaware.gov
Camden	1783 Friends Way Camden, DE 19934	697-2299	camden.delaware.gov
Cheswold	691 Main St. Cheswold, DE 19936	734-6991	cheswold.delaware.gov
Clayton	414 Main St., PO Box 1130 Clayton, DE 19938	653-8419	clayton.delaware.gov

Contacts Tab

Has a contact for the Flood Planning Tool and a link to a Community Contact List

Questions?

Janice Shute, PE
DNREC
Janice.Shute@state.de.us