DNR Applications using LiDAR Data
The Big Picture

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Shoreline Mapping and Change Analysis

- Navigation
- Tidal Wetlands Management
- Critical Area Program
Shoreline Mapping and Change Analysis

- Land Conservation
- Puritan tiger beetle habitat mitigation
- Shoreline stabilization
Coastal Hazards and Floodplain Management

DFIRM Outreach
The State of Maryland, in conjunction with the Federal Emergency Management Agency (FEMA), has been systematically updating Flood Insurance Rate Maps (FIRMs) for communities over the past several years. This site is designed to guide homeowners/tenants as well as communities through the process of determining their current flood risk as well as future flood risk based on the preliminary Digital Flood Insurance Rate Maps (DFIRMs).

The DFIRMs are digitized flood insurance rates maps that will be compatible with GIS (Geographic Information Systems). The improvements in spatial accuracy provided by the new base map, and the availability of electronic floodplain information should greatly enhance the ability to use the maps for planning, permitting, and insurance applications.

Researching Your Future Flood Risk
The DFIRMs are being released on a community by community basis. It is important to investigate your flood risk status and contact your insurance agent to make necessary modifications to your coverage while the maps are still preliminary. The digital files will be available when these maps become effective.

Using This Website
To use this website we recommend starting with your area of interest. If you are a homeowner, please visit the Homeowners/Tenants section. If you are interested in an entire community, please visit the Communities section.

Technical Requirements
To use this website we recommend using a high-speed internet connection using Internet Explorer 7.0 or 8.0. Additionally, Adobe PDF Reader 9.0 and Adobe Flash Player 10.0 are required. The resolution of your monitor is also important, make sure your resolution is 1024 x 768 or above.
Flow Path Analysis and Accumulation
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Stream Network Analysis
Impervious Surface Assessments
Watershed Protection and Restoration Program
(Stormwater Utility Fee: HB 987: 2012)

• All NPDES jurisdictions must charge a fee

• Various approaches including assessment of impervious surface footprint

• Funds stormwater management and stream restoration
Stream Restoration: Stability Analysis and Geomorphic Assessments
Land Use Planning and Ecological Thresholds

Stream Health

- Brook Trout
- Giant Stonefly and other sensitive insects
- Brown Trout replaces Brook Trout
- Most sensitive species absent
- No trout and only tolerant insects

Percent Impervious Surface

- <5%
  - Water cool and clean
  - Stream banks and bottom typically stable
  - Trout can be found
  - Endangered species can be found
  - Many fish species
  - Many salamander species
  - Many freshwater mussels
  - Many insect taxa

- 5-10%
  - Water may be warmer and slightly polluted
  - Erosion may be evident
  - No brook trout
  - Most rare and endangered species absent
  - Many pollution tolerant fish
  - Fewer salamander species
  - Only tolerant mussels
  - Fewer insect taxa

- 10-20%
  - Water warmer
  - Erosion usually obvious
  - Trout absent
  - Rare stream species absent
  - Fewer fish species
  - Only three tolerant salamander species
  - No native mussels
  - Mostly tolerant insects

- >20%
  - Water warm and pollution usually evident
  - Unstable habitat
  - Trout absent
  - Non-native species dominate some streams
  - Only tolerant fish species
  - One salamander species
  - No native mussels
  - Only tolerant insects
GreenPrint

Targeted Ecological Areas
Lands and watersheds of high ecological value that have been identified as conservation priorities by the Maryland Department of Natural Resources.

Maryland

How many acres have been identified as Targeted Ecological Areas, and how much is protected?

Since 2007, which state conservation programs are protecting the Targeted Ecological Areas?

Protected and Unprotected Targeted Ecological Areas

2007-2008 Land Conservation In and Out of Targeted Ecological Areas

Martin O'Malley Governor
Anthony G. Brown Lt. Governor

Click on any county to get that county's statistics. Click here for Maryland's statewide statistics.
Maryland LiDAR Collection Program

**LiDAR Overview**

Elevation data is essential for a broad range of applications: flood risk management, ortho rectification, emergency management, damage assessment, watershed analysis, natural resource conservation management, just to name a few. LiDAR stands for Light Detection And Ranging and is currently the primary collection method for elevation data. The LiDAR initiative provides multiple options for users interested in exploring Maryland’s elevation data.

**Topography Server**

The best available elevation data is maintained in a centralized location and provides a variety of core and derivative services in both county and statewide extents. Available services include digital elevation model (DEM) in feet and meters, shaded relief, slope, aspect and hillshade.

**Topography Viewer**

The Maryland Topography Viewer is a web application that allows users to view and interact with the elevation services hosted on the Maryland LiDAR server. Users can view, query and more on desktop and mobile devices.

**Topography via ArcGIS Online (AGOL)**

Users can display and interact with the elevation products through ArcGIS Online (AGOL). AGOL maps have been pre-populated with core and derivative products in both county and statewide extents.

**Status Maps**

Multiple contacts are executed each year to collect and process LiDAR data for areas within Maryland. The Available Acquisitions Status Map displays geographic extent, dates, funding sources and other basic metadata concerning various acquisitions. The Planned Acquisitions Status Map will help interested parties stay informed about new data that will become available in the near future.
Good Data…Good Decisions