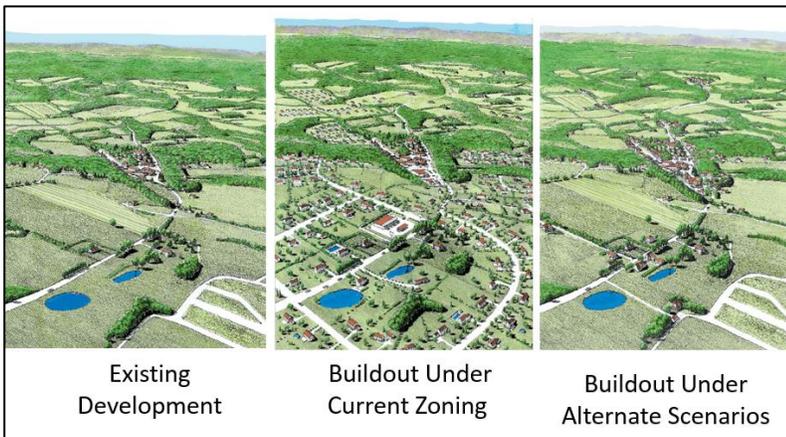


# QUICK START GUIDE

NJ MAP BUILDOUT MODELER: A TOOL FOR NEW JERSEY MUNICIPALITIES

INTERACTIVE VISUALIZATIONS AND SCENARIOS FOR FUTURE DEVELOPMENT

## WHAT IS THE NJ MAP BUILDOUT MODELER PROJECT?



**SHORT ANSWER:** An interactive tool to visualize potential impacts of current and future zoning.

The New Jersey Municipal Buildout Modeler aims to help visualize current and future zoning and its impacts on the environment for each municipality in New Jersey. With 565 municipalities in New Jersey and home rule zoning, this task is no easy feat. The Buildout Modeler is hosted by NJ MAP which employs interactive mapping technology that allows anyone with access to a computer with internet the ability to explore local level impacts as they pertain to zoning changes.

The tool’s central focus is on the nitrate impacts that will occur due to future development proscribed by local zoning ordinance. It also allows towns to develop “what if” or alternate zoning scenarios. This is helpful to project how zoning changes are likely to result from the changes to the nitrate pollution levels to be expected at buildout. The New Jersey Buildout Modeler gives

### WHAT IS NJ MAP?

The NJ MAP project is an interactive website working to bring crucial environmental information to everyday citizens so that they may interact and understand topics within their town or surrounding area (right down to the parcel-level)!

NJ MAP ([www.njmap2.com](http://www.njmap2.com)) is a platform that serves communities within NJ that are interested in a wide variety of environmental topics. Land conservation, agricultural preservation, watershed management and “buildout” i.e. analyzing impacts of current and future zoning are all themes that may be explored via NJ MAP.

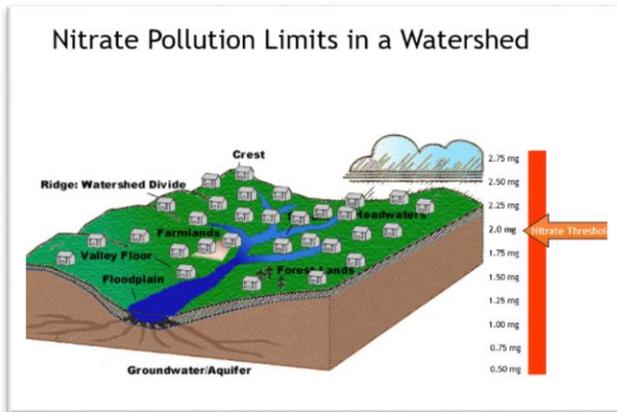
### FAST FACTS:

- ❖ Get Started! Go to: <https://njmap2.com/buildout>
- ❖ If you have any questions/concerns, please feel free to contact us by email: [njmap2.0@gmail.com](mailto:njmap2.0@gmail.com)
- ❖ Developed by: Geospatial Research Lab at [Rowan University](http://RowanUniversity)
- ❖ Visit the NJ DEP Water Quality Management Planning - Rules & Guidance [Website](#)

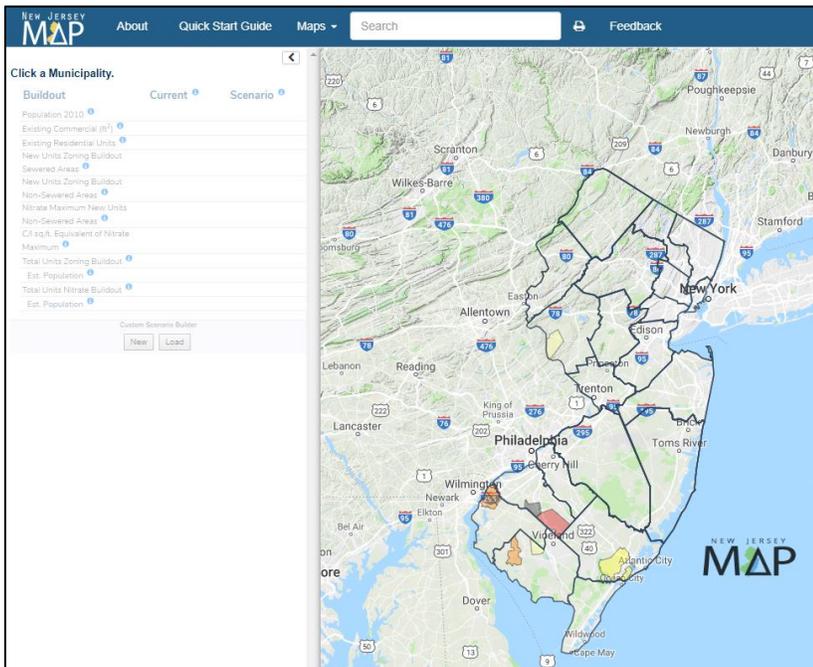
towns the tools to more effectively plan for zoning that helps to **protect water resources**.

The Municipal Buildout Modeler has a broad array of potential applications including but not limited to:

- Water Quality Management Planning (WQMP)
- Land Conservation
- Smart Growth Planning
- Resiliency Planning for mitigating climate change impacts



The project is a joint effort between New Jersey Department of Environmental Protection & Rowan University Geospatial Research Lab and is currently operating with eight municipalities online. Please continue to check back to see what municipalities and functionality has been added and feel free to provide us with any feedback [here!](#)



- ❖ Check out Frequently Asked Questions about Nitrate Dilution [here](#).

### REMINDER:

- ❖ Works best in Google Chrome and Microsoft Edge

- ❖ \*NJ MAP Buildout Tools work only within eight municipalities:

- [Carneys Point Twp](#) (Salem)
- [Deerfield Township](#) (Cumberland)
- [Egg Harbor Township](#) (Atlantic)
- [Elk Twp](#) (Gloucester)
- [Franklin Township](#) (Gloucester)
- [Hopewell Twp](#) (Cumberland)
- [Kingwood Township](#) (Hunterdon)
- [Oldmans Township](#) (Salem)



### WHY BUILDOUT MATTERS

>>> Clean water is essential to healthy communities and future generations. How development impacts our water systems is an important topic and it is often not easy for the public to access the information to address issues or potential concerns relating to these matters. <<<

**GETTING STARTED:** Go to the website, <https://njmap2.com/buildout>. From there, the best way to get started is to click on one of the eight towns highlighted on the map. This automatically centers the map on that area and also provides information in the left-hand panel of the screen relating to current and future zoning. If you hover over the **blue info icon** next to each list item, it will explain what those items and what their associated values represent.

Buildout	Current <sup>i</sup>	Scenario <sup>i</sup>
Population 2010 <sup>i</sup>	16,820	
Existing Commercial (ft <sup>2</sup> ) <sup>i</sup>	16,818,916	
Existing Residential Units <sup>i</sup>	6,257	
New Units Zoning Buildout Sewered Areas <sup>i</sup>	618	
New Units Zoning Buildout Non-Sewered Areas <sup>i</sup>	3,100	
Nitrate Maximum New Units Non-Sewered Areas <sup>i</sup>	995	
C/l sq.ft. Equivalent of Nitrate Maximum <sup>i</sup>	390,000	
Total Units Zoning Buildout <sup>i</sup>	3,718	
Est. Population <sup>i</sup>	28,892	
Total Units Nitrate Buildout <sup>i</sup>	1,613	
Est. Population <sup>i</sup>	21,189	

Custom Scenario Builder

Highlighted Feature

You may zoom in or out & also pan left to right to explore the area. There are two buttons that look like this -  (in the top-left and top-right of the map) that hold the capabilities of best exploring the map.

**EXPLORING THE TOOLS**  - i.e. [Top **left** button]

This button provides important ways to explore the map. It provides a dropdown list of items that may be toggled on or off. As a first time user, it might make sense to explore these items from the bottom and work your way to the top. See the illustration below for a more detailed explanation.

Pro tip: Click the thumbtack icon to keep the table of content menu open 

**Existing**

- Residential Units
- Building Footprints

**Buildout Units**

- Existing Zoning, Sewered
- Existing Zoning, Non-Sewered
- Nitrate Limit, Non-Sewered
- Current Model, Sewered
- Current Model, Non-Sewered

**Overlays**

- Zoning
- Parcels
- Watersheds (HUC 11)
- Sewer Service Areas

**Constraints**

- Show All Constraints
- Existing Urban
- Wetlands
- C1 Stream Buffers

**Don't turn these on just yet! These "layers" illustrate the following on the map:**

- **Residential Units:** When turned on, a "green house" icon appears for every existing housing unit..
- **Building Footprints:** These gray polygons show building locations including commercial/industrial.
- **Existing Zoning, Sewered:** Existing residential units plus the maximum number of new residential units that can be built, under current zoning, on vacant land in sewer service areas.
- **Existing Zoning, Non-Sewered:** The maximum number of new residential units that can be built, under current zoning, on vacant land outside of sewer service areas.
- **Nitrate Limit, Non-Sewered:** Displays house icons (in orange) - The maximum number of new residential units that can be built, on vacant land outside of sewer service areas and under current zoning, while adhering to the NJ DEP NO3 dilution standards in areas without existing or proposed sewer services.

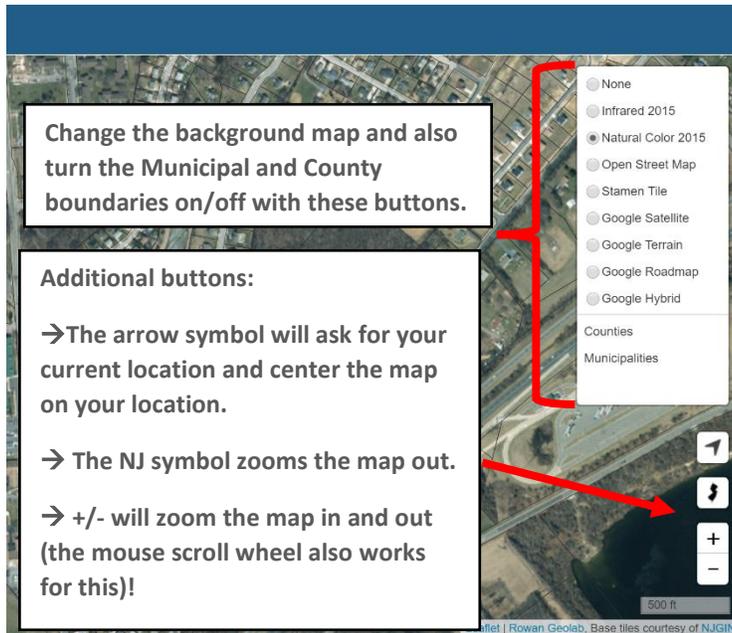
**Overlays:** These four buttons may be toggled on/off depending on the area(s) you are interested in exploring. When on, these buttons will display boundaries and also provide info in the "Highlighted Feature" section (on the left of the map) when the mouse hovers over the areas that are turned on.

**Constraints:** The third section of the dropdown list enables you to "mask" out places that have either already been developed/preserved or development is not possible due to topography (i.e. water bodies, wetlands).

### RESETTING THE MAP:

**Carneys Point Township**  ← If you want to **start over**, click the blue trash icon to reset the map back to the original parameters.

>>> **Pro tip:** Changing the BACKGROUND MAP may help you see your landscape differently! <<<



**Change the background map and also turn the Municipal and County boundaries on/off with these buttons.**

**Additional buttons:**

- The arrow symbol will ask for your current location and center the map on your location.
- The NJ symbol zooms the map out.
- +/- will zoom the map in and out (the mouse scroll wheel also works for this)!

Background Map Options:

- None
- Infrared 2015
- Natural Color 2015**
- Open Street Map
- Stamen Tile
- Google Satellite
- Google Terrain
- Google Roadmap
- Google Hybrid

Boundaries:

- Counties
- Municipalities

Map Controls:

- Home (arrow)
- Zoom In (+)
- Zoom Out (-)

Scale: 500 ft

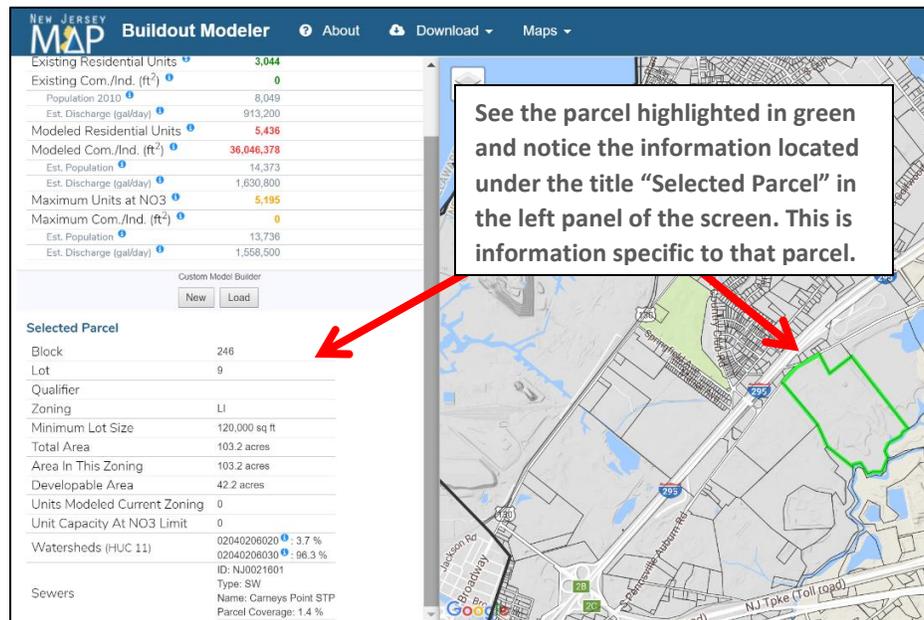
© Rowan Geolab, Base tiles courtesy of NJGIN

### EXPLORING THE TOOLS - i.e. [Top right button]

In the top right-hand corner of the map area you will see this button again. A dropdown list appears when you hover over the button and provides you with “radio buttons” which allow you to choose **ONE** background map for which the information will be displayed on top.

For example, in the screen capture to the left, I have “Natural Color 2015” selected which allows you to easily identify large features such as golf courses, major highways and so on.

### SELECTING AN AREA OF INTEREST



**See the parcel highlighted in green and notice the information located under the title “Selected Parcel” in the left panel of the screen. This is information specific to that parcel.**

NEW JERSEY MAP Buildout Modeler	
Existing Residential Units	3,044
Existing Com./Ind. (ft <sup>2</sup> )	0
Population 2010	8,049
Est. Discharge (gal/day)	913,200
Modeled Residential Units	5,436
Modeled Com./Ind. (ft <sup>2</sup> )	36,046,378
Est. Population	14,373
Est. Discharge (gal/day)	1,630,800
Maximum Units at NO3	5,195
Maximum Com./Ind. (ft <sup>2</sup> )	0
Est. Population	13,736
Est. Discharge (gal/day)	1,568,500

Selected Parcel	
Block	246
Lot	9
Qualifier	
Zoning	LI
Minimum Lot Size	120,000 sq ft
Total Area	103.2 acres
Area In This Zoning	103.2 acres
Developable Area	42.2 acres
Units Modeled Current Zoning	0
Unit Capacity At NO3 Limit	0
Watersheds (HUC 11)	02040206020 : 3.7 % 02040206030 : 96.3 %
ID:	NJ0021801
Type:	SW
Name:	Carneys Point STP
Parcel Coverage:	1.4 %

Once you have located a parcel or area of interest, you may click on that parcel and you will see a panel of information appear in the left-hand side of the screen below “Buildout” section of information.

This panel provides you with information specific only to the area that you have area selected. Information such as block, lot, area measurements, minimum lot size, zoning and the

watershed that the area belongs to (and more!) can be found here.

*\*Please note – The watersheds are shown according to their HUC11 number but if you hover with your mouse, the proper watershed name will appear!*