



Making Manville Sustainable



A History Unlike Most

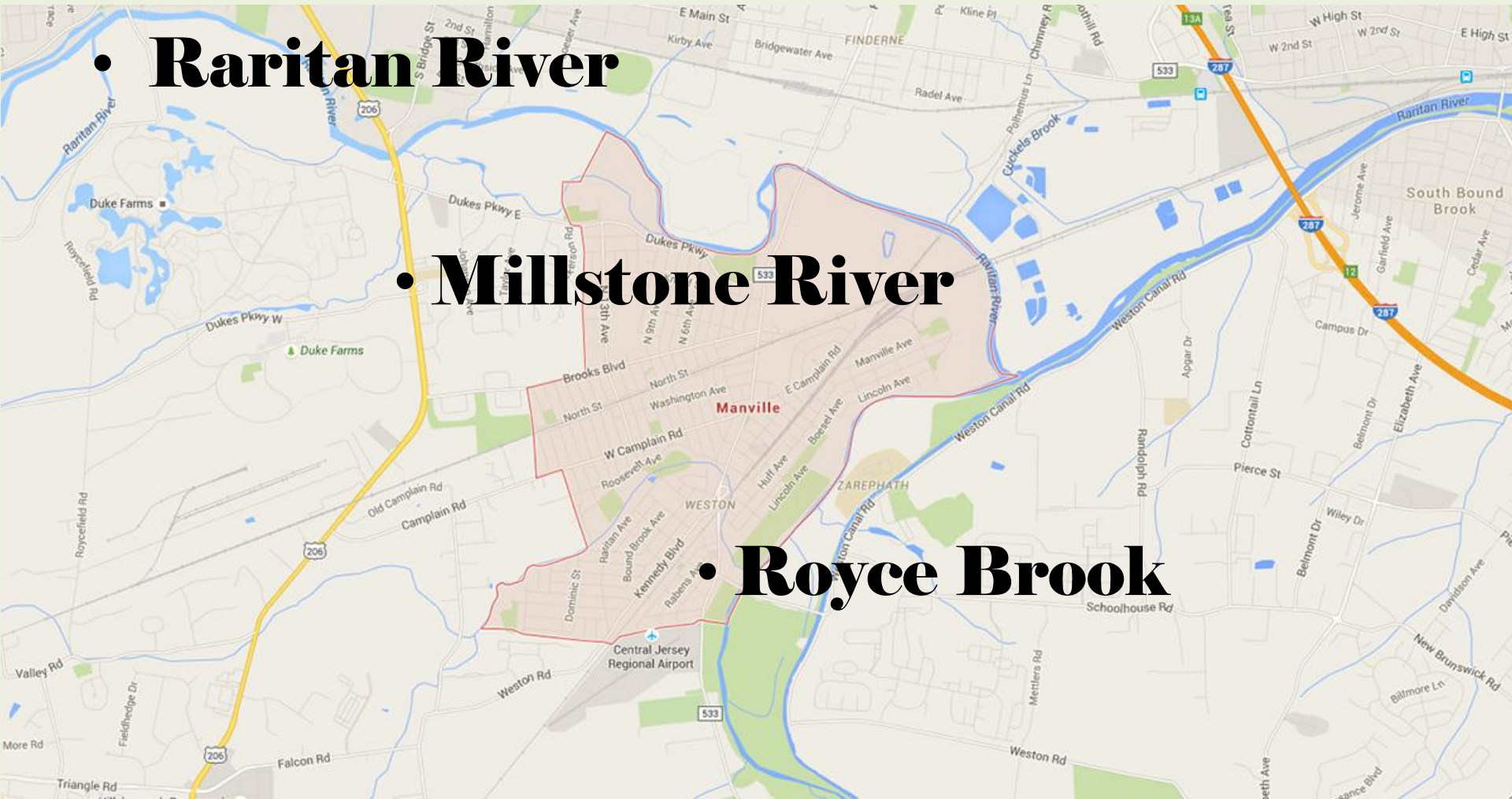


Flooding in Manville

- **Raritan River**

- **Millstone River**

- **Royce Brook**



Flooding events last 50 years

- **1966 Hurricane Diane (Cat 3)** – at the peak of this event, **Dukes Parkway** was under **10 feet** of water. **300 homes** affected.
- **1971 Hurricane Doria (Tropical Storm)** – in excess of **10 inches** of rain fell on **Manville**; the **Raritan** crested at **37.5 feet**.
- **1973** – an unnamed storm caused the evacuation of more than **1,000 residents**.
- **1996** – another unnamed storm caused widespread flooding across the **Borough** after six inches of rainfall. **Foundation walls** in some **Lost Valley** homes collapsed due to the pressure.



Flooding events last 50 years

- **1999 – Hurricane Floyd (Cat 4)** – Worst flooding event to ever hit Manville with 10 to 12 inches of rain falling in a short period of time. Manville; the Lost Valley was devastated, the South side of Main Street & large areas on the North side. Raritan crested at 42 feet. Floyd damaged 1,200 of the town's 3,500 homes, businesses and buildings.
- **2007 – Springtime Nor'easter** – 10 to 12 inches of rain fell in Manville; the Lost Valley was devastated, the South side of Main Street & large areas on the North side.
- **2010 – Springtime Nor'easter** – Another spring storm turns into a flood event in Manville.
- **2011 – Hurricane Irene (Cat 1)** - This storm came up the coast as a Hurricane Cat 1, but after a month of near record rainfall, making Irene yet another huge flood event.



The Army Corps of Engineers - A Decision that Makes No Sense

In 2016, after spending more than \$3 million on a study that took decades to complete, the Corps concluded there is not enough flood damage in the Borough to justify the project.

"Over 50 years have passed and the Borough of Manville remains the 'forgotten town' in a regional approach to flood mitigation,"

"The amount of impervious surface placed within our watershed is well past the tipping point. The region is in need of solutions to help lower flood water levels produced by the Raritan River, Millstone River and Royce Brook.

Manville Mayor Richard M. Onderko

Impervious Cover

- **A watershed with greater than 25% impervious cover typically is non-supporting of aquatic life.**
- **Based upon the New Jersey Department of Environmental Protection's (NJDEP) 2007 NJDEP land use/land cover data, approximately 34.0% of Manville Borough has impervious cover. This level of impervious cover suggests that the streams in Manville Borough are likely non-supporting streams.**

Dr. Chris Obropta – Rutgers University



Taking Action Into Our Own Hands

- **Public Outreach – educating the residents**
- **Working with FEMA –**
 - **over 100 Blue Acres buyouts**
 - **FEMA generator grant for emergency shelter**
- **Flood Damage Prevention Ordinance – October 2016**
- **Community Rating System Participation**
 - **Currently a “7” rating; looking for a “5” rating to reduce flood insurance premiums for our residents**

Teaming with the Experts

- **The Nature Conservancy**
 - **Elizabeth Schuster and colleagues**
- **Rutgers University**
 - **Dr. Chris Obropta**
 - **Pat Rector**
- **Raritan Valley Community College**
 - **Dr. Jay Kelly**
 - **Dr. Emilie Stander**

Teaming with Local Neighbors

- **Somerset County Planning and Engineering Staff**
- **Duke Farms – a mentor and advisor**

Locating Grants to Fund Projects



Grant Funding

- **FEMA**
 - **\$75,000 emergency generator**
 - **\$33,000 flood mitigation**
- **State of NJ – application pending**
- **NJ American Water – application pending**

Lost Valley Nature Park

- **Large – scale project in Valley to include native plantings, nature trails**
- **Ties into Somerset County Priority Growth Phase III project**
- **Recreation, Education and Flood Resiliency**



Rutgers Cooperative Extension Water Resources Program

- **Teaming with Rutgers –**
- **Impervious cover assessment 2015**
- **Future Action Plan Projects include:**
 - **Raingardens & raingarden rebate programs**
 - **Bioswales**
 - **Porous pavement projects**
 - **Rain barrel programs**



Why We Are Here Today

- **We are together today to make a difference.**
- **Only “together” can we achieve success.**
- **We need to team with the experts;**
- **Teach and support each other;**
- **Be a part of something new and positive for Manville**



Be a Part of This Movement

Be a Green Team Member

- **Help make a difference in Manville**
- **Get educated and help educate others**
- **Spread the news**





What is Sustainable Jersey?

- **A non-profit organization**
- **Participation is voluntary**
- **Dedicated to assisting local governments**
- **Work towards completing program actions to address a variety of “sustainability” issues**
- **Registered communities are eligible for small grants**
- **Prosperity, Planet and People**

What is Next?

- **Assemble a Green Team/Advisory Team**
- **Adopt a Resolution of Participation**
- **Register**
- **Develop a Mission**
- **Develop Goals and Objectives**
- **Plan**
- **Take Action**

