Swatara Township Stormwater Program

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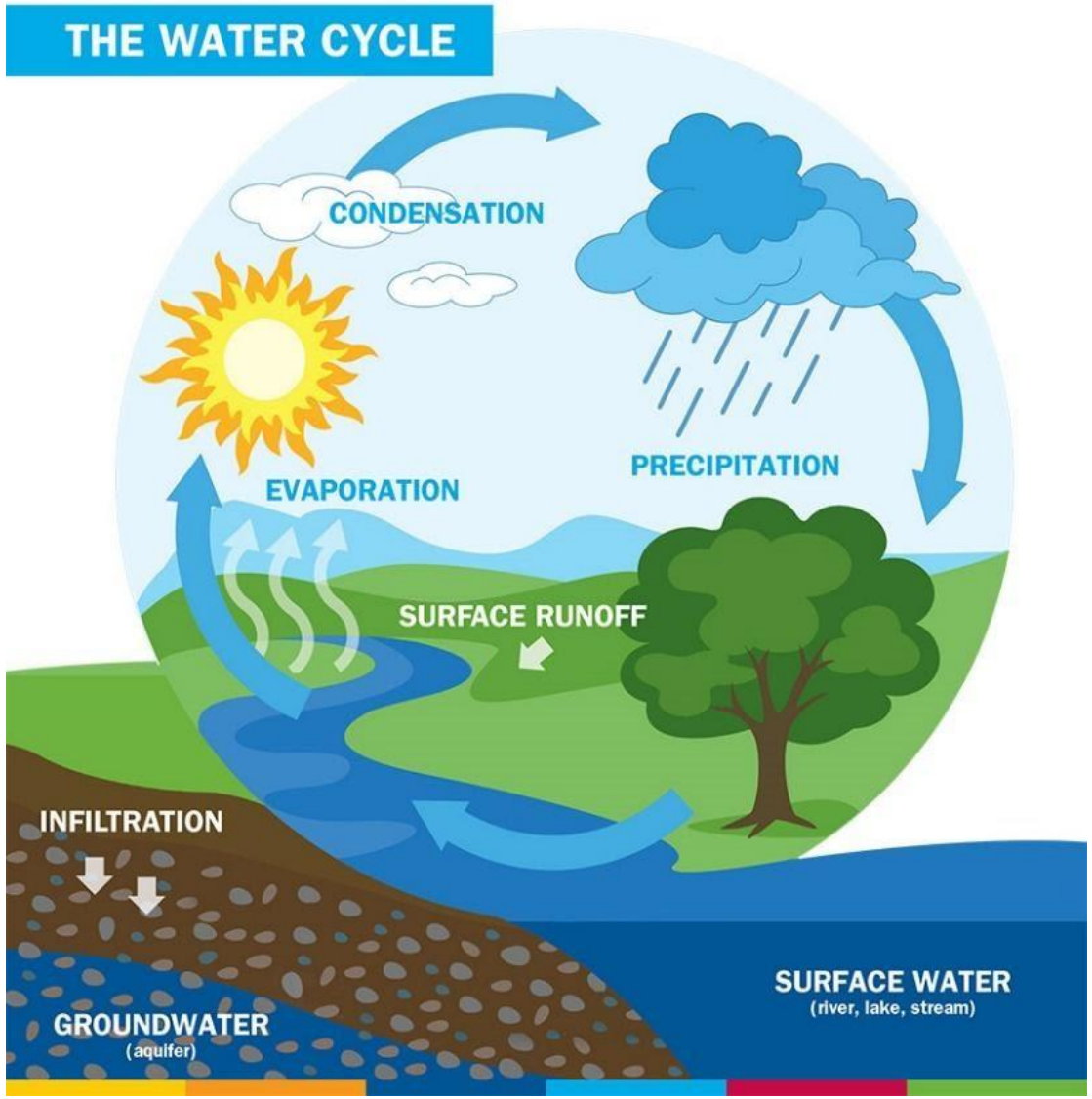
SWATARA TOWNSHIP PENNSYLVANIA

Agenda

- Stormwater
  - What is it?
  - Why do we need a Stormwater Program?
  - What is impervious surface?
- Stormwater Rate Structure
- Implementation & GIS
- Projects & Goals



Stormwater

- What is it?
  - Stormwater runoff is generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground. The runoff picks up pollutants like trash, chemicals, oils, and dirt/sediment that can harm our rivers, streams, lakes, and coastal waters. (DEP)

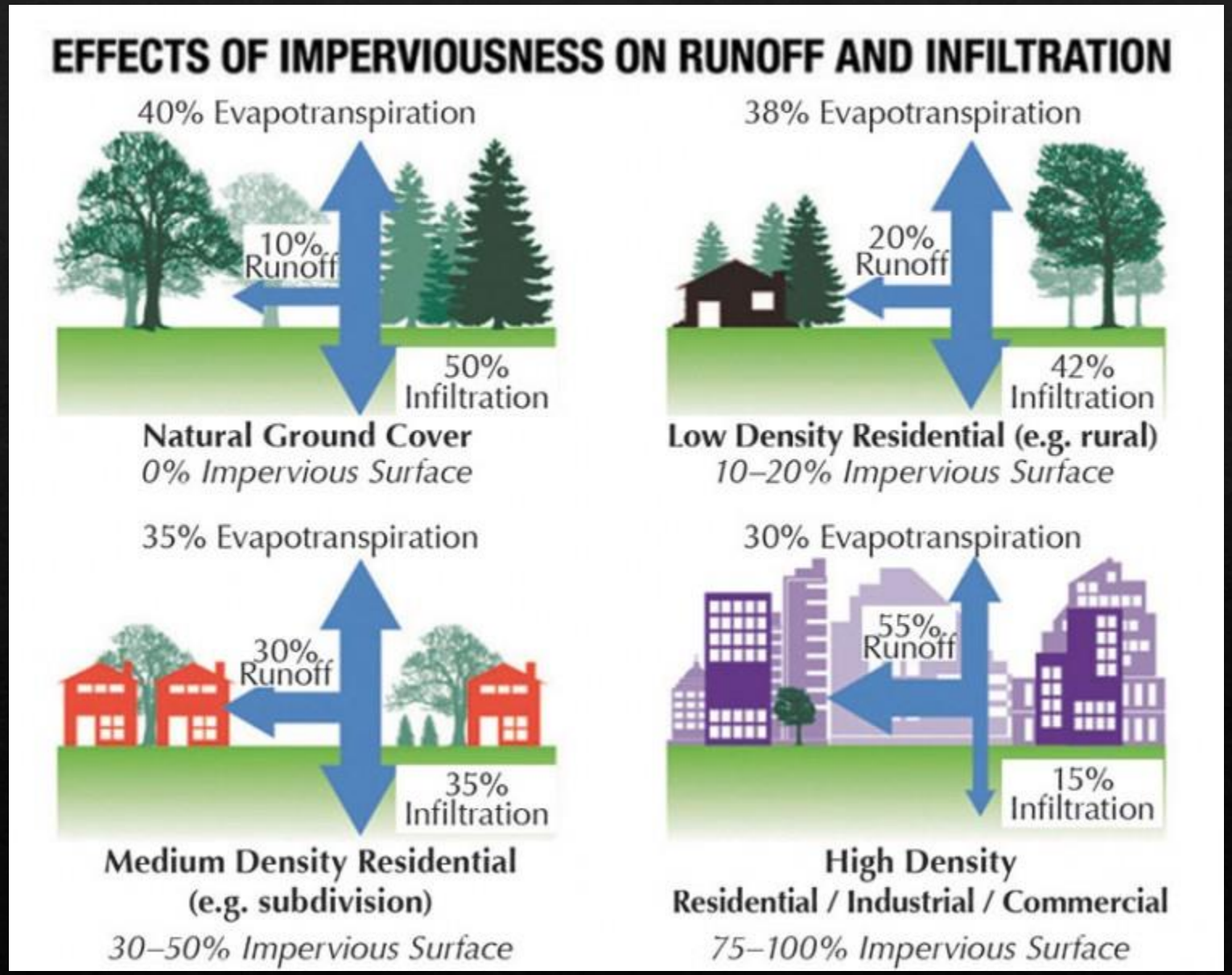
- **Why do we need a program?**
  - Reduce local flooding & basement damage
  - Cleaner, healthier surface water & improved water quality
  - Improved recreation & appearance
  - Protect property value

EPA United States Environmental Protection Agency

pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

KEEP OUR STORM DRAINS CLEAN • ALL DRAINS LEAD TO THE OCEAN •

Types of Impervious Environments



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Impervious Mitigation

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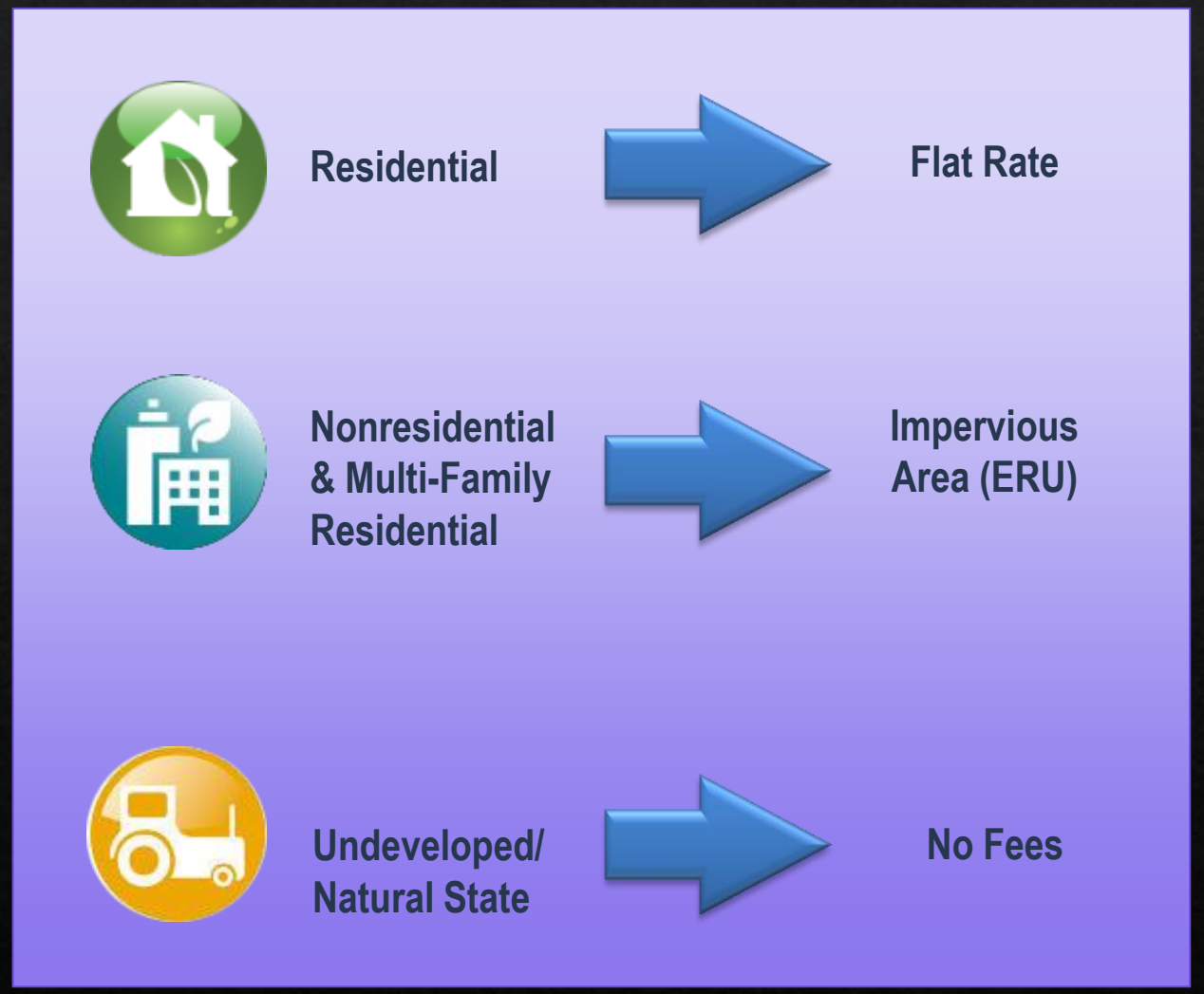
Stormwater Rate Structure

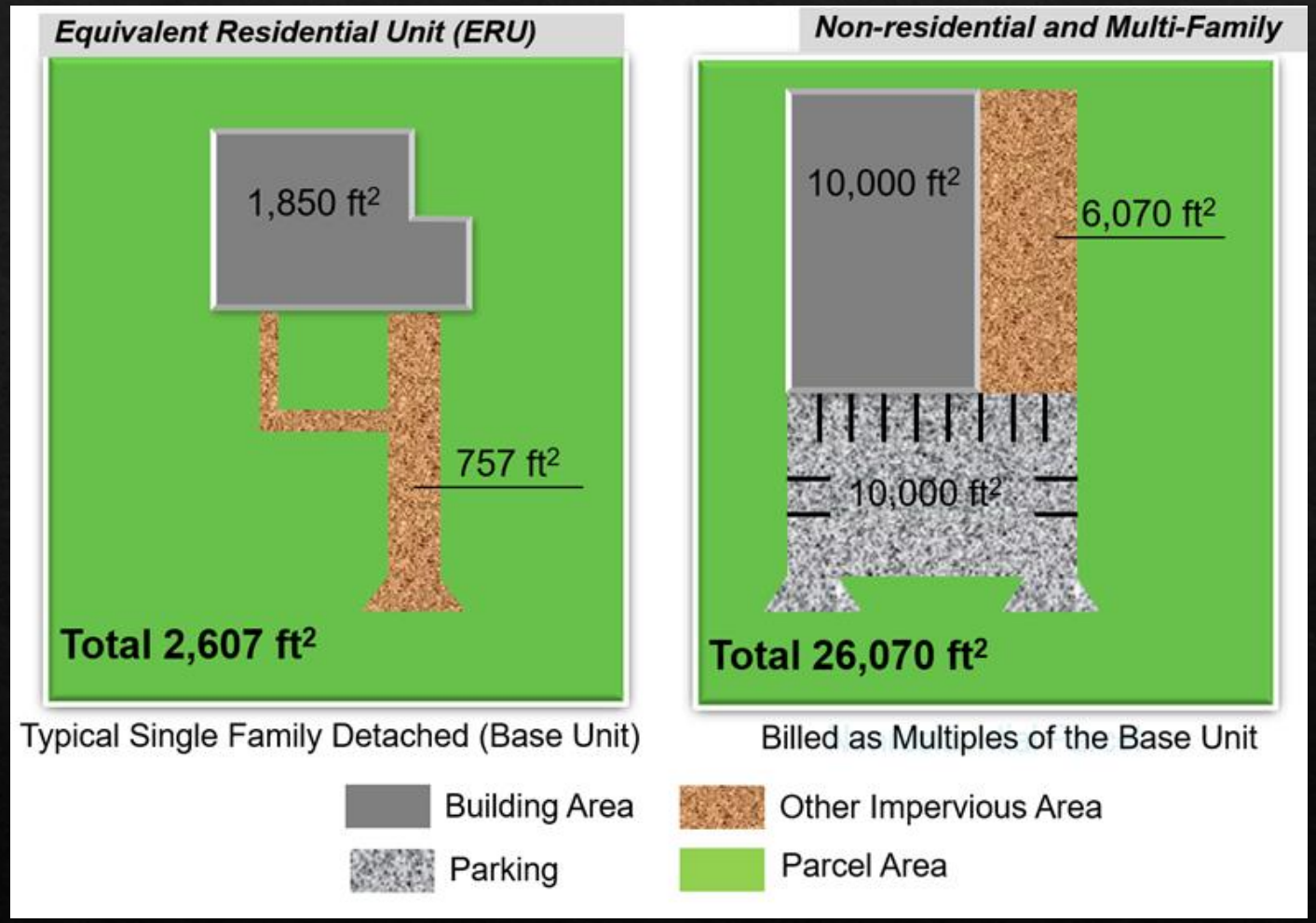
- Residential parcels pay a flat rate
- Nonresidential & Multi-family residential pay a rate based on coverage
  - The unit used is “Equivalent Residential Unit” or ERU
- Undeveloped or natural lands pay no fee
  - The land is in a natural state and undisturbed



Impervious Surface & ERU's

- 1 ERU = 2,607 ft²
- 26,070 ft² / 2,607 ft² = 10 ERU

- We do have a credit policy in place that can lower your bill by mitigating stormwater issues
  - These are commonly call "Best Management Practices" or BMP's
  - Please reach out to us to discuss these options



ERU = "Equivalent Residential Unit"

Implementation

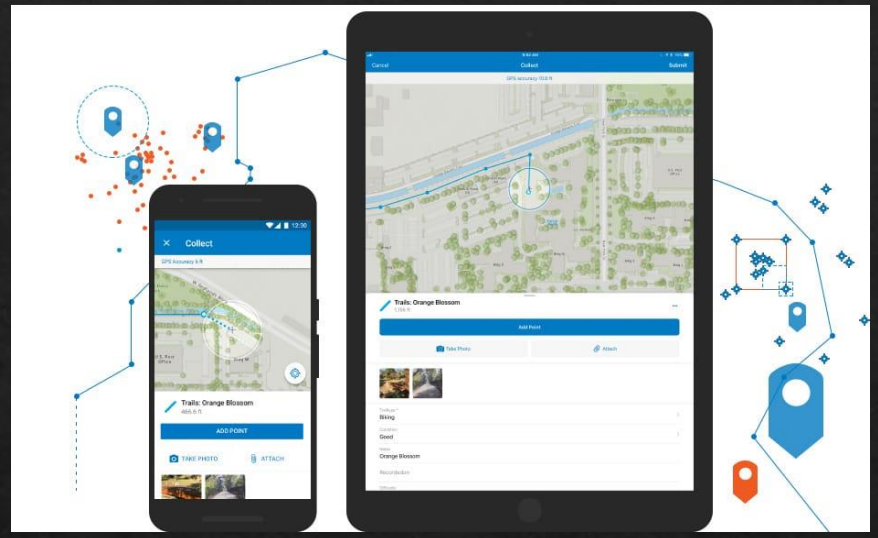
- Data & Mapping (GIS)
  - GIS allows us to catalogue our stormwater system down to the individual items such as inlets, outfalls, manholes

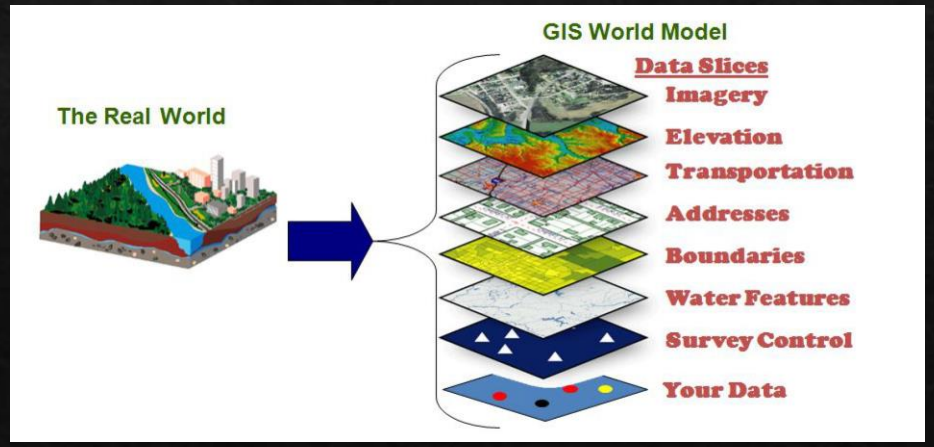
- Survey Equipment (Accurate Inventory)
  - Trimble R2 (a GPS device) - which allows us to collect data on the sub-foot level (high accuracy)

Trimble®

Geographic Information System (GIS)

- Allows us to collect, manage and analyze assets
- Create maps, models & 3D images
- Readily Available Data
  - Computer, tablet or phone (Collector APP) for quick access and updating.
  - Making informed decisions in the field.





GIS, Rover & Uses

- GIS is currently being used for:
  - Stormwater – locating and cataloging the storm sewer system
    - We also record video with Rover of the inside of the pipes to view current conditions
  - Highway – locating roads, other utilities, and sinkholes
  - Fire – response time
  - Police – navigation, planning

Rover!


SWATARA TWP LEHIGH
INLT00344 -> EOP0481
Circular 24inch Corrugated Metal Pipe
10/22/19
1:51:47 PM
0.00


Envirosight
ROVVER X
crawler configurations
underground understood
ximize
capability

Projects & Goals

- Storm Sewer Inspection Program
  - CCTV Camera Truck
  - Lawnton Basin Drainage
- I-83/Eisenhower Interchange
  - Spring Creek Stream Restoration
  - Floodplain Study
- Repairs due to pipe failure and sinkholes