



# Exeter NH-Stormwater Management at a Neighborhood Scale

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## Introduction

The River Run community in Exeter, NH consists of approximately **240** residences in a manufactured home park along the Exeter River. It was built in the 1960s and suffers from a lack of effective stormwater management infrastructure.

The goal of the project is to implement improved stormwater management practices to address the **ponding issues** throughout the community and **concerns of water quality** from runoff entering the Exeter River.



Locus Map: Site Location

## Existing Conditions

- The community has **8** existing catch basins.
- Impervious surfaces make up **42%** of the total area of the community.
- Lack of infiltration** has caused increased runoff and pooling.
- Inadequacy of the existing systems has led to the **erosion** of certain sections of the riverbank



Figure 1



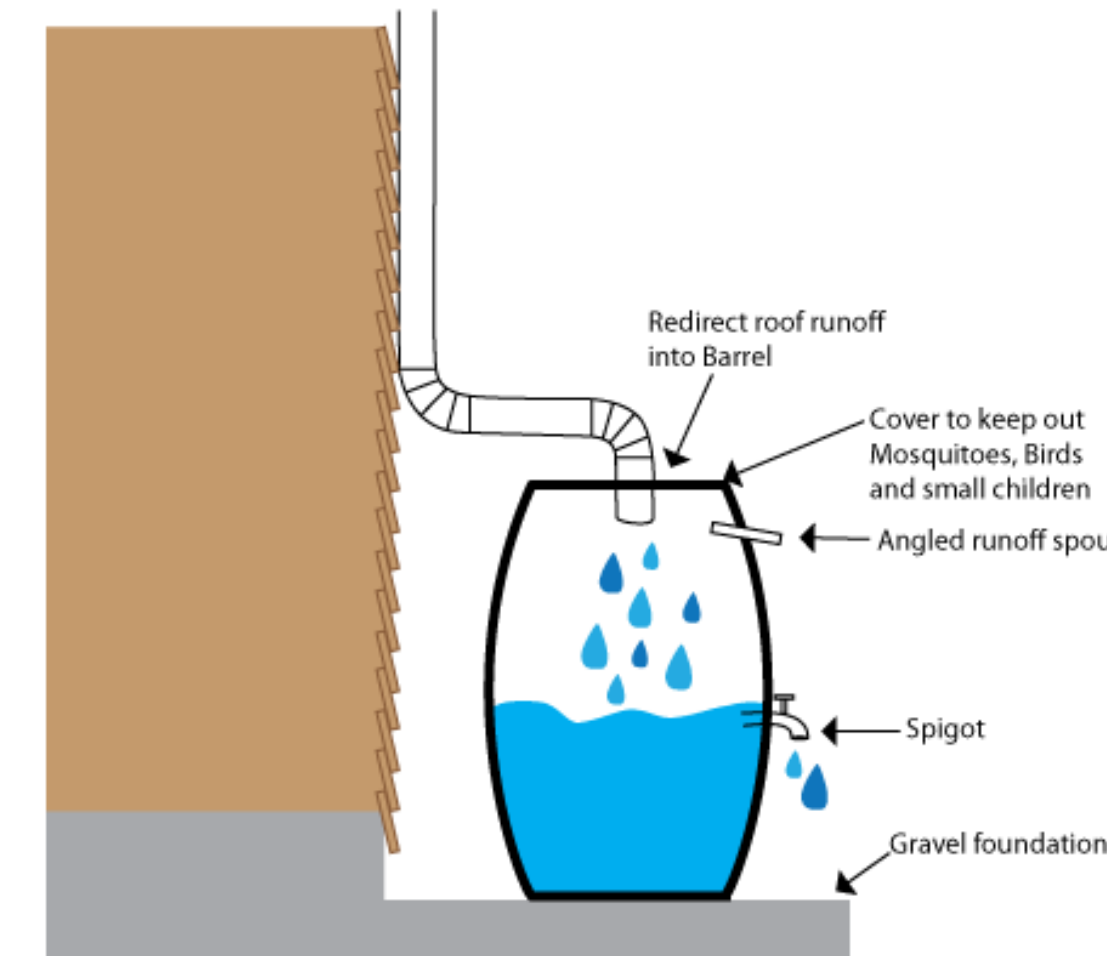
Figure 2



Figure 3

## Residential Scale Solutions

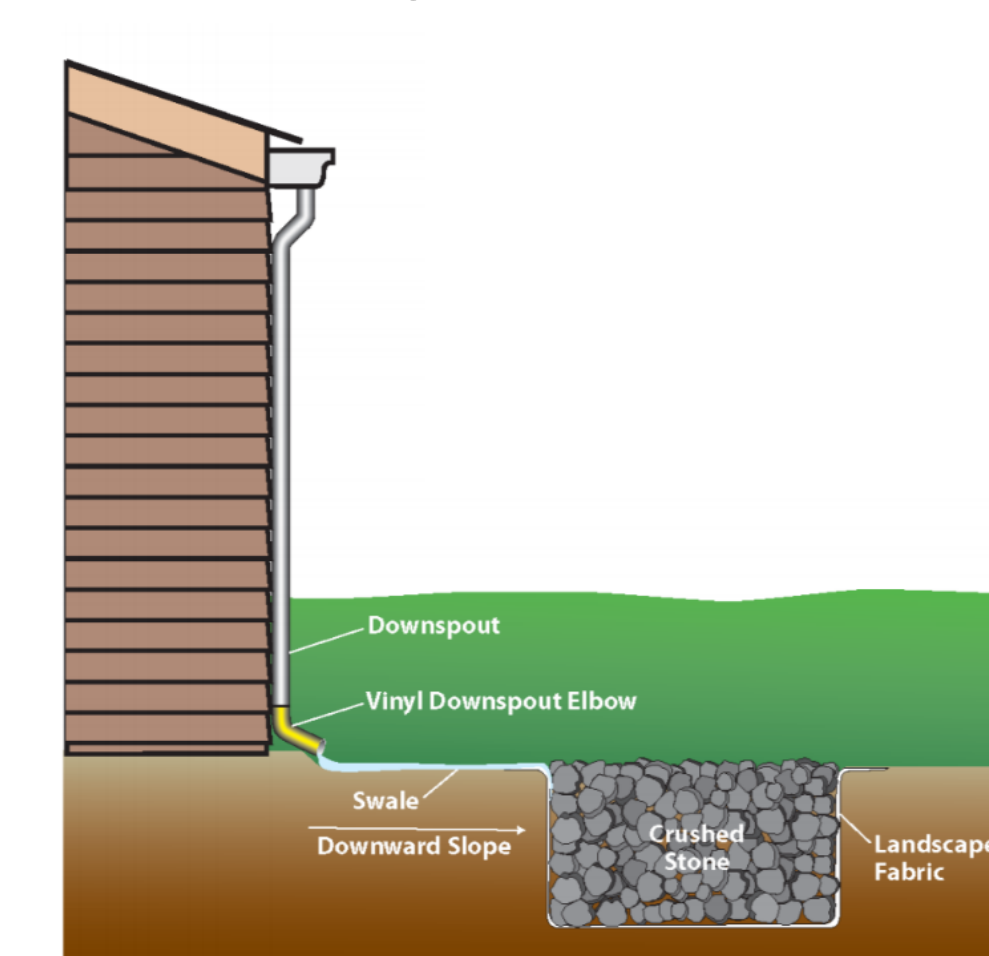
### Rain Barrel



Best for properties with:

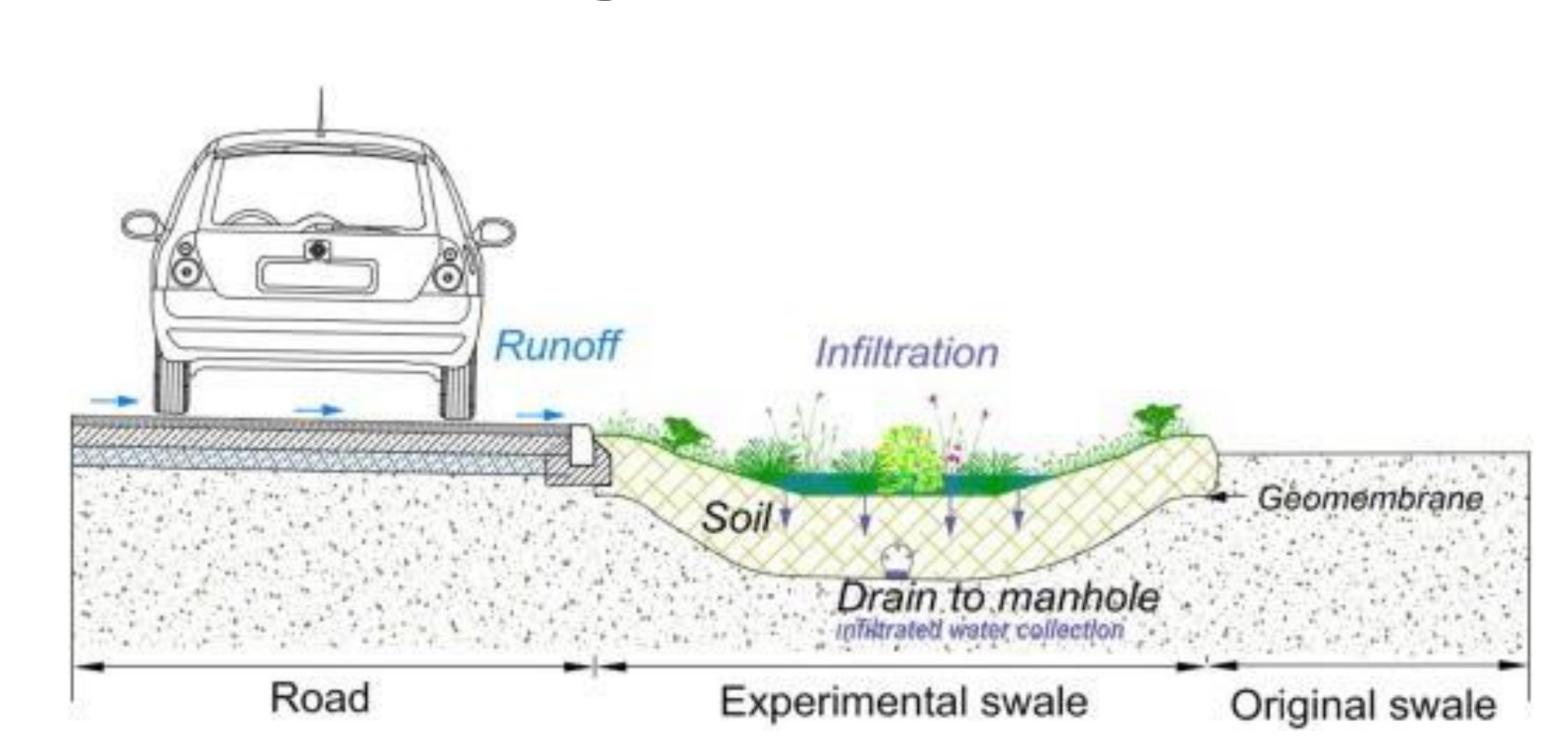
Roof runoff, ponding on property, poor soil infiltration rates

### Dry Well



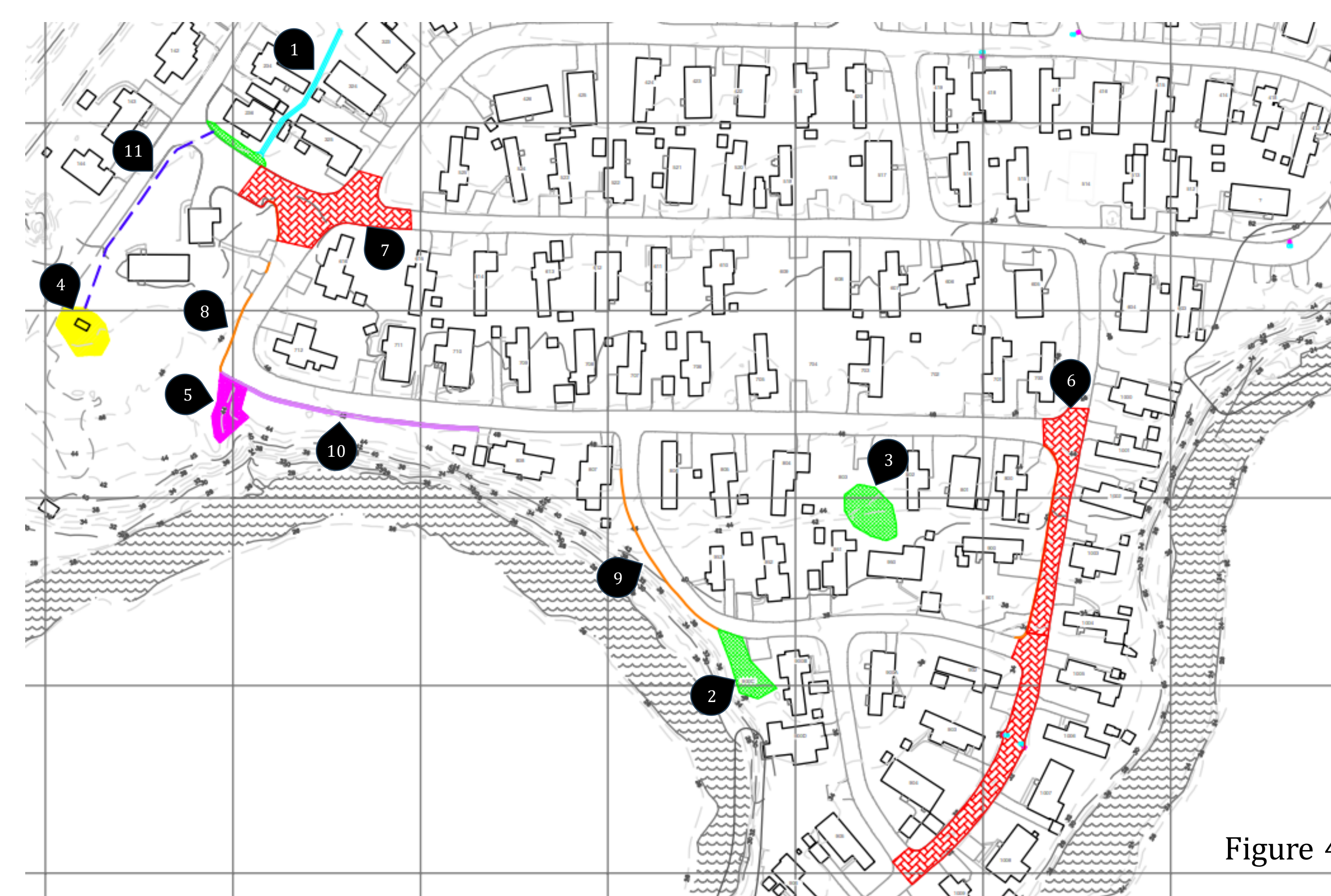
Low maintenance needs, roof runoff, ponding on property, higher soil infiltration rates

### Vegetated Swale



Sloped property, low maintenance needs, poor soil infiltration rates

## Neighborhood Scale Solutions



### Proposed Solutions Legend:

- Rain Garden
- Swale
- Dry Well
- Erosion Prevention Trench
- Drainage Trench
- Curbing
- Permeable Pavement
- Piping

Figure 4

### Phase 1

- Swale behind 236 and 235
- Rain garden West of 900B
- Rain garden between Nottingham and Little John
- Dry well installation adjacent to clubhouse
- Erosion prevention trench installation
  - Residential scale solution examples at 233
  - Homeowner outreach

### Phase 2

- Permeable pavement on Camelot from Little John to Maid Marion
- Permeable pavement at Nottingham and Canterbury intersection
- Curbing East of clubhouse on Nottingham
- Curbing on West of Little John into rain garden
- Trench on Southwest end of Nottingham
- Piping installation for drywell
  - Assistance implementing residential scale solutions for homeowners

## Summary

Using these recommendations, Jones and Beach Engineering, Inc. will use recently acquired funds to implement some of the proposed solutions. With some of these solutions installed, the ponding and water quality concerns in the manufactured home park are expected to improve.

Residents will be presented with stormwater solutions and a decision matrix that will allow them to choose the best residential scale stormwater management practice based on their observations and measurements at their property.

## Acknowledgements

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References

