

Downspout Planter

Overview

- A downspout planter is a type of green stormwater infrastructure technology that absorbs stormwater through vegetation.
- Downspout planters capture rainwater that would have otherwise been lost as runoff. This runoff may have either caused flooding issues on the property or would have been diverted to local streams or storm drains. Stormwater planters decrease the amount of peak stormwater runoff.
- A planter system contains gravel, soil, plants, and the downspout connection.
- After reaching storage capacity, the excess stormwater drains out of the planter. Stormwater planters filter sediment and pollutants from the stormwater overflow.
- When installing a downspout planter, ensure that there is an overflow valve or downspout disconnection that will drain away from the structure and away from any local impervious surfaces (driveways, sidewalks, etc.).
- Planters can be constructed in many different shapes/sizes. Concrete, plastic, brick or wood can be used to construct the planter.
- Planters should be adequately reinforced.
- Downspout planters are aesthetically pleasing and can provide habitat for pollinators.



Key Takeaways

During storm events, water may pool in yards or flood structures. Flooding can cause extensive damage to the interior and exterior of structures. Pools of water can harm landscaping and provide breeding grounds for mosquitos.

To help avoid flood damage costs, install a downspout planter to beneficially reuse stormwater.

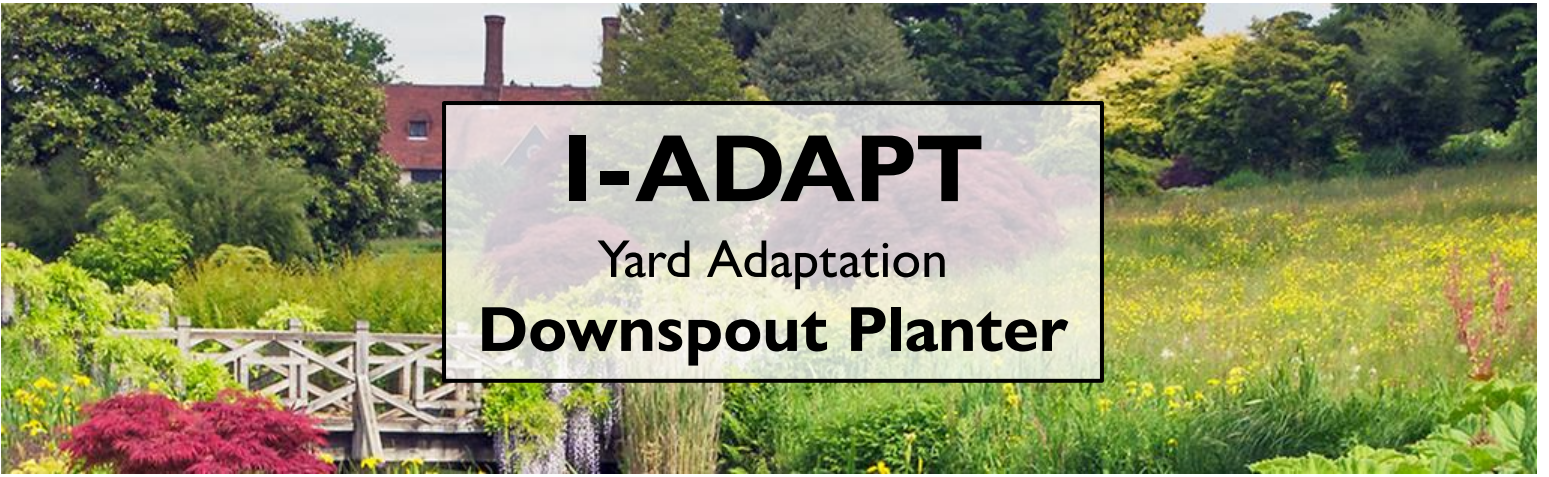
Estimated Costs/Benefits

*U.S. dollars (2022), estimates are subject to change

Potential Costs		Potential Benefits	
Item (Quantity Needed)	Estimate per unit	Post-Flood Recovery Actions	Estimate
Plywood (1)	\$11-\$35	Flood damage recovery (professional clean-up, mold removal, replacement/repair of flood damaged items)	\$10,800-\$53,500+
2x4s (18)	\$2-\$8		
OR			
Aluminum planter	\$110-\$300		
AND			
60 lb Gravel bag (16)	\$6-\$8	Regrade yard	\$700-\$1,700
40 lb Soil (20+)	\$2-\$5		
Plastic liner (1)	\$14-\$65		
PVC piping (1)	\$6-\$30		
Plants	Cannot estimate		
Paver stones (18)	\$0.50-\$2	Remove standing water	\$1,300-\$5,000
Downspout diverter (1)	\$12-\$70		
ESTIMATED TOTAL COST (6x3x3 planter)	\$224-\$729+	ESTIMATED TOTAL SAVINGS	\$12,800-\$60,200+



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Potential Funding Sources

- [Delaware Water Pollution Control Revolving Fund](#)

Expected Maintenance

- Periodic inspection of the planter and downspout connections for blockages/leaking.
- Periodically check gutters and downspouts for blockages/clogging.
- Re-planting and weeding as necessary.

Additional Resources

- [Philadelphia Water Department: Downspout Planters](#)
- [Rutgers: Planning, Design, and Construction of Green Infrastructure](#)

Resources can also be found at <https://de.gov/iadapt>



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Additional Actions

- During installation, plant native species.
- Ensure that the overflow flows away from the structure so that excess stormwater does not cause flooding.
- Ensure that gutters are functioning properly.
- Install gutter guards to help prevent leaf litter buildup.
- Ensure that the lawn is graded so that water flows away from the structure.

Permitting Agencies

Contacts for permitting requirements include but are not limited to the following:

- Your city and/or county government for local flood ordinances or stormwater regulations
- Your city and/or county government for building permits
- [DNREC Coastal Construction Permit](#)

Who to Contact

- Green infrastructure contractor
- Geotechnical engineer

Technical definitions and more information are located on the I-ADAPT website: <https://de.gov/iadapt>.



This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at DNREC_IADAPT@Delaware.gov

