



**PURE
BASIN**
SERVICES

Stormwater Basins 101

About Us

Company Information and Background

- Pure Basin Services has been in business for over 20 years.
- Ownership has decades of service business experience
- Originally operated as Blue Marble, LLC.
- Specialized service company focused exclusively on *stormwater compliance* for central Texas.

What are stormwater basins?

Basin Examples



Basin Examples



Basin Examples



Basin Examples



What is Stormwater Compliance?

Stormwater Compliance

What is it? Why is it important?

- Stormwater compliance is:
 - Keeping your property's stormwater system within the regulatory requirements created and enforced by San Antonio and State of Texas

Stormwater Compliance

What is it? Why is it important?

- Codes are put in place to ensure the rain flowing off your impervious cover does not:
 - A) Pollute our water supply
 - B) Flood your neighbor downhill

Stormwater Compliance

What is it? Why is it important?

- Who enforces this?
- There are city and state regulatory requirements for stormwater basins
- San Antonio Water System enforces city regulations
- Texas Commission on Environmental Quality (TCEQ) enforces state regulations

Stormwater Compliance

What is it? Why is it important?

- Following the codes is important because the TCEQ or SAWS could:
 - Place a hold on the property that prevents all future development
 - Impose large fines on noncompliant properties
 - **Up to \$25,000 per day**
 - Demand further development of insufficient stormwater systems



Stormwater Compliance

What is it? Why is it important?

- Most importantly stormwater basins:
 - Protect the environment
 - Protect our drinking water
 - Prevent flooding

What types of stormwater basins are there?

Stormwater Basins

What kinds are there? How are they maintained?

- There are two main types of stormwater basins
- 1) Filtration basins
- 2) Wet Ponds

Stormwater Basins

What kinds are there? How are they maintained?

- **Filtration Basins**
 - By far the most common type of stormwater filtration system
 - Designed by a UT professor to keep up with new stormwater regulations passed in the 90s
 - Usually consists of two “chambers” with a rock filter in-between
 - Sand acts as filter for dirty stormwater



Stomwater Basins

What kinds are there? How are they maintained?

- **Filtration Basins**
 - Many types of filtration basins.
 - Concrete wall
 - Grass Berm
 - Concrete Sedimentation
 - Grass sedimentation
 - Multiple types of sand



Stormwater Basins

What kinds are there? How are they maintained?

- **Wet Ponds**
 - Permanently Wet
 - More common at largest developments
 - Inspections are critical for these ponds, but they require less regular maintenance work than filtration ponds



How are stormwater basins maintained?

Stormwater Basins

What kinds are there? **How are they maintained?**

- **Filtration Basin Maintenance**

- Remove all rooted grass and vegetation from filtration basin
- Remove accumulated sediment from filtration basin
- Level sand in filtration basin to remove all scouring
- Clean basin of all leaves, trash, and debris from both chambers
- Clear gabion rock filter of debris
- Cut grass in sedimentation chamber to keep vegetation below 18"
- Inspect basin to ensure basin meets all regulatory requirements
- Provide detailed inspection report with before and after photos when work is completed

Stormwater Basins

What kinds are there? How are they maintained?



Final Overview

- Stormwater Basins protect the environment and channel floodwaters
- Keeping Stormwater Basins compliant with city and state regulations is important
- Stormwater Basins require regular upkeep and can be severely damaged if not maintained properly