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**BEST MANAGEMENT PRACTICES for CLEAN WATER**

# How to Properly Handle CONCRETE WASHOUT

The Macomb County Public Works Office (MCPWO) works with local municipalities, businesses and residents to promote the best management practices for clean water to enhance the quality of life in Macomb County. When it rains, water that drains from buildings, roads or other hard surfaces deposits directly into your local storm drains and begins a journey that ultimately ends in Lake St. Clair. It is critical that we eliminate pollution and other contaminants before they enter our streams, rivers and lakes. Clean water is vital not only to the quality of life in Macomb County, but can serve as a critical component of economic development in our communities.

## WHAT IS IT?

Concrete washout water is the washwater that is leftover after cement work is done and the equipment has been cleaned up with water. In order to minimize or eliminate the discharge of concrete waste materials into the storm drains, it is important to follow proper procedures and practices. This washwater contains toxic metals and has a pH value near 12, making it very caustic and corrosive. A neutral pH value is 7 and numbers greater than 7 show increasing alkalinity while lower numbers represent increasing acidity. The safe pH value range for freshwater is 6.5 to 9.



Equipment that is commonly washed out after cement work is done includes: the drum from the concrete truck, the chutes and hoppers, wheelbarrows and hand tools. A slurry of water and concrete washout water is created that must be disposed of properly so it does not enter the storm drain system which would contaminate the local waterways.

## BEST MANAGEMENT OBJECTIVES



According to the Environmental Protection Agency (EPA 833-F-11-006), the best management practice objectives for concrete washout are:

1. When cleaning equipment, operators need to retain all concrete washwater and solids in approved containers with leak proof designs so the washwater does not reach storm drains or soil surfaces that could runoff into local waterways or ground water.
2. Collect 100% of concrete washwater and solids and recycle them to prevent materials from ending up in a landfill.

Making sure all of the concrete equipment is cleaned out properly prevents the concrete washout from leaking into nearby surfaces. This prevents washwater from entering the waterways which can cause pollution problems in surface waters and the soil.

## EDUCATION

There are many washout systems available for onsite or offsite clean up. Washwater should NEVER be disposed of in the storm drains or in the ground where it can filter into the groundwater. Organizations such as the National Ready Mixed Concrete Association (NRMCA) have developed courses that deal with real "hands-on" information for companies and workers to follow on rules and regulations for handling washwater. See their website for more information:

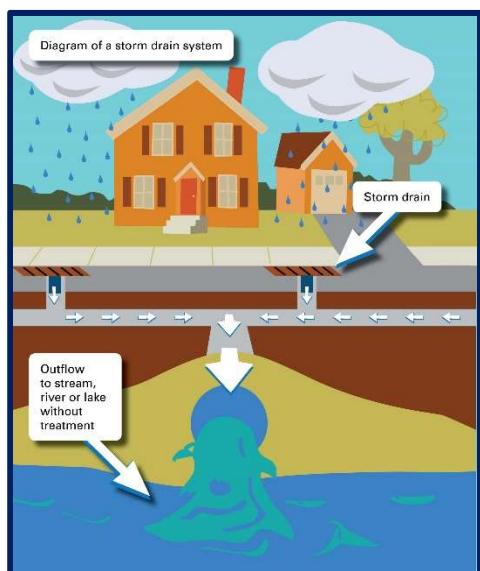
[https://www.nrmca.org/operations/ENVIRONMENT/Courses\\_environmental.htm](https://www.nrmca.org/operations/ENVIRONMENT/Courses_environmental.htm).

## RESOURCES

There are many options for concrete washout containers that can be used onsite or back at the ready mixed batch plants. Check with your local equipment retailers for materials and additional information.

A good resource for detailed information on how to properly handle concrete washout which will minimize or eliminate the discharge of washwater into storm drains or waterways is available through the Environmental Protection Agency. It is a pdf titled "Stormwater Best Management Practice Concrete Washout" and can be found at the following link:

[www.epa.gov/npdes/pubs/concregewashout.pdf](http://www.epa.gov/npdes/pubs/concregewashout.pdf).



## WHAT CAN YOU DO?

It is important to manage the waste water from concrete washout according to EPA guidelines. The equipment used for making and pouring concrete must be cleaned out using an approved container or at a concrete washout facility conveniently located for concrete trucks.

Following proper guidelines prevents discharge into the local waterways through stormwater runoff that can enter the local storm drain system and through surface water that percolates into the soil and enters the ground water system.

It is everyone's responsibility to keep our waterways clean in Macomb County. Working together on best management practices for clean water, we can improve the quality of life by having clean water to drink, recreate in and use in everyday life.



For more information - [publicworks.macombgov.org](http://publicworks.macombgov.org)

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