

THE DRAWDOWN

February 2022

Welcome to *The Drawdown*

Welcome to the inaugural issue of the Griffin Dewatering newsletter that will focus on construction dewatering and groundwater management topics.

Every six weeks or so you will receive non-commercial information regarding dewatering system design, installation, and operations for construction, infrastructure, and coal ash dewatering projects along with water treatment solutions for removed groundwater.

In our first issue, we're going to start with the basics.

What is Construction Dewatering

Dewatering is the process of removing groundwater or surface water from a construction site using dewatering systems and methods.

Groundwater is removed from the site using deep wells, well points, eductors or conventional "sump and pump" methods. Dewatering may be temporary during construction activities or be a permanent fixture for the life of the facility.

Why is Dewatering Important?

1. Safety

People don't like working with wet feet, this includes workers in building excavations, pipeline welders and any other contractor working at the site. Also, keeping the bottom of the excavation dry reduces the possibility of tripping and slipping hazards and can prevent equipment damage.

If the groundwater at the site is contaminated with chemicals from a dry cleaner or UST site, removing the water from the excavation reduces employee exposure to the toxins.

2. Stable Worksite

Proper removal of the groundwater before construction begins can eliminate excavation failures due to uncontrolled water. Groundwater exerts pressure on the surrounding soil. If you remove soil below the level of the groundwater at the site (static level), water may flow into your excavation.

This may cause the walls of a pit or slope to fail, leading to safety hazards, schedule delays, equipment damage and re-excavation. Additionally, water pressure from under the excavation floor may cause sand boils or upheaval of the soil.



3. Schedule

Proper dewatering prevents groundwater from affecting the jobsite and keeps the project on the proper timeline. Download our project checklist to ensure you don't miss a step when gathering information and planning dewatering.

[Download Checklist »](#)

How do we dewater a site?

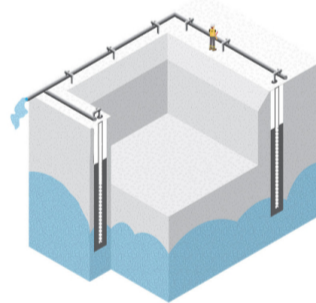
Wellpoint Systems

Consists of a series of wellpoints that connect to a common header pipe. The header system is then connected to a vacuum pump that draws the water through the wellpoint, to the header system and then to a discharge point.



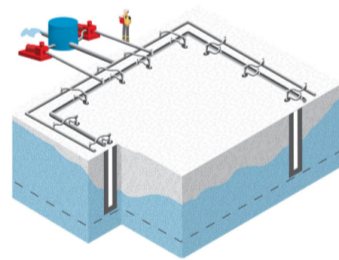
Deep Well Systems

Deep well dewatering systems lower groundwater using a series of drilled wells, each fitted with an electric submersible pump. This method is designed to pump large amounts of groundwater, which creates a broad cone of influence.



Eductor Systems

Wells are installed and connected to two parallel headers. One header is the high-pressure supply line and the other a low-pressure discharge line. The eductor "pump" is placed at the bottom of the well and has no down-hole moving parts. Both the high and low pressure lines run to a central pump station.



Open Sumping

Simply a depression in the excavation or construction site; water collects in the depression or sump and is then pumped to a discharge location. In some cases, trenches may direct flow to the sump.



[Visit our blog to learn more about dewatering systems.](#)

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Watch for future issues of *The Drawdown*, where we will discuss topics like how is a dewatering system designed? How are the wells drilled? What types of pumps are used in Deep Well Systems? How does an eductor work? What if the water from the system shows signs of contamination?

If would like immediate information, please call us at (800) 431-1510.

Wellpoint Dewatering Systems

Learn about wellpoint dewatering & system design.

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Griffin Dewatering
5306 Clinton Dr. Houston, TX 77020
713-676-8000