

# Creating Water Resilient Industries

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Written by Corey Getz and Quint Shambaugh, [DIGS Associates](#)

As we navigate our way through water shortages, preserving what we have becomes even more critical. The management and conservation of water are vital, especially during wind and solar utility installations. The focus on the other side of the pandemic needs to be on agility and resilience for long-term sustenance. Renewable focused utilities and landowners should calibrate the risks of constructing large wind or solar farm installations and their relationship to drainage water management.

Due to the global water scarcity issues, water usage optimization should be given utmost importance. A major part of water efficiency is professional drainage that ensures proper disposal and reuse of water. Balancing those requirements demands close coordination between government relating bodies, contractors, and many other stakeholders. Integrating multiple objectives and work streams is a challenge of its own. Leadership that is dedicated and clear about the process can help facilitate the project through their hands-on partnership. Experts can draw upon their knowledge about drainage to eliminate long-term risks.

The first step in identifying the need for proper drainage comes by identifying the risks associated with it. As we are combatting extreme weather, we must optimize the use of water. A drainage specialist can advise on how water can be disposed of properly to prevent erosion. Safeguarding the foundation from runoff and future drainage issues, proper drainage water management can have the biggest impact on long-term

sustainability. Utility companies, given their large capital investment, can tackle water scarcity issues with the help of drainage experts.

## **Optimizing Water for the Future**

The current economic condition and changes in climate have further intensified challenges in water management. In the short term, utility companies can face excessive issues such as damages to the surface and subsurface drainage systems, including upstream neighbors that might not be in the immediate area of the utility project. In the long run, overlooking the drainage water management could lead to increased erosion, excessive flooding, crop losses, and yield drag for the entire project region and watershed. In the long term, all these issues could be exacerbated. Increased erosion, increased flooding, excessive crop loss, and the possible deterioration of new utility infrastructure, such as roads and other installations, are just some of the long-term risks.

In addition, understanding the soil and water composition of the land is integral. Many times, wastewater can end up in a landfill, squandering opportunities for water reuse. Fortunately, proper drainage experts can help build a water-optimizing economy by identifying potential pain points that may come up immediately and in the future.

## **An Approach of Efficiency and Sustainability**

Given the importance of utilities for the decades ahead, drainage water management, performed by experts, is a necessary measure. Overlooking drainage stems from a lack of awareness and essentially not understanding the devastating consequences. The fundamental benefits of drainage experts include capturing economies of scale, reducing costs, and minimizing risks. For instance, proper drainage can reduce costs related to existing infrastructure repairs and maintenance, benefitting all the stakeholders involved.

Drainage water experts can help by providing upfront, proactive facilitation services for utility companies to avoid the costs incurred during the remediation of drainage tiles. Some examples of tasks range from developing QAQC requirements to creating a full-scale drainage remediation plan. In addition, drainage experts could be instrumental in setting the standards for proper remediation and facilitation, and/or they could serve as the intermediary to bring together the utility and conservation. Speeding up approvals and land acquisition, a major reason for cost and time over-runs, can easily be handled by professionals. Underinvestment in drainage can take a major toll on the credibility, safety, and reputation of the company as well. Drainage experts can use their industry know-how to ensure quality control for the utility company.

Overall, professional drainage can make life easier for everyone involved by working with various suppliers on multiple projects and by serving as the one point of contact for all. Professionals in drainage water management can advise on various aspects of the project, such as engineering, customer relationship management, negotiations, materials, and technology due to their familiarity with the industry.

To optimize water usage and prevent runoff and inland flooding, drainage water management becomes a critical feature during wind and solar farm utility installations. Proper drainage by professionals can bring together all the stakeholders to avoid downtime, prevent conflicts and delays, and increase cost savings by capitalizing on economies of scale. Taking care of the structure, process, and people is a task that can only be undertaken by drainage experts for an efficient, resilient, and sustainable structure that preserves our most important resource, water.