## Wastewater Treatment Services



www.HCR-LLC.com





Handex provides sludge removal and waste minimization services with expertise in the full suite of dewatering services, customized to accomplish each customer's specific goals.

#### **Our Commitment**

Handex Consulting & Remediation, LLC (HCR) has over 50 years of experience in the field which provides us with the understanding that your operations must be competitive and profitable as well as:

- Promoting safety
- •Conserving resources and reducing waste
- Comply with environmental and community regulations
- Improving sustainability overall

That is why at Handex our vision is to be the safest, most reliable, trusted and consistently performing provider of environmental services.





#### **Our Values**

Passion for Quality- We believe in going above and beyond customer service standards to ensure our clients are taken care of.

Innovative Approach- We are always looking to invest in new technologies that not only help us here at Handex, but meet your needs as a company.

Timely Delivery- We understand that timing is everything. That is why we hold ourselves accountable for timely delivery to keep everything running smoothly and efficiently.

Cost Efficiency- We reduce costs whenever possible to improve productivity to become as efficient as possible.

### **Safety**

Handex is committed to protecting the health and safety of its employees, clients, contractors and communities. Handex believes that all injuries and illnesses are preventable through cooperation with our employees, clients and contractors. Our goal is to prevent the occurrence of all work-related injuries and illnesses. To achieve this goal Handex has adopted superior health and safety performance as a core value.

All Handex personnel have extensive training in Health and Safety, including Confined Space Entry and OSHA 40-Hour HAZWOPER and annual OSHA 8-hour refreshers.



#### **Industrial Sludge Removal & Waste Minimization**



Specialized services include the removal and processing of sludge from wastewater treatment facilities.

Sludges are processed by:

- Centrifuge
- Filter Press
- Belt Press

Handex offers a broad range of experience in handling tank bottoms, which includes sludge removal, processing, transportation and disposal of waste materials.

Handex starts by understanding the problem and comping up with an appropriate solution. Services begin with preliminary bench scale evaluation of a representative sample to determine the most appropriate and cost-effective dewatering technology content.

In most cases, the processing of tank bottoms through mechanical separation of the liquid and solid phases is the most cost-effective approach when compared to the costs associated with pumping and trucking off-site for disposal.

Processing and volume reduction is accomplished by plate and frame filter presses, centrifuges, belt filter-presses and geomembranes.

Additional equipment can be added to the process treatment train to remove low-level contaminants in the liquid phase prior to discharge. Solid filter cake is loaded into containers for shipment and disposal or recycling, which can be arranged by either Handex or the client.

#### This includes:

- Up to 80% volume reduction
- Treatability testing of sludge to achieve the optimum process choice and filter aids
- Sludge removal
- Sludge pretreatment
- Waste handling and disposal
- Completely mobile and self-contained equipment for remote locations
- Treatment and discharge/disposal of filtrate

#### **Biosolids Processing**



Biosolids dewatering is key to any wastewater treatment plant to minimize the amount of solids that are being processed through their system. Handex follows all local, state, and federal regulations when it comes to biosolids requirements. By utilizing our centrifuge technique, we can dewater sewage sludge and apply the additional treatments to ensure it meets the three regulatory classes of biosolids.

Handex assists wastewater treatment plants in this process in many ways such as centrifuge equipment sales and operation, temporary dewatering services while a treatment plant conducts system upgrades of their processes, or during times when equipment normally used is being repaired. Handex continues to provide high quality biosolids product while exploring new wastewater treatment technologies to improve biosolids resource recovery and management options for wastewater treatment facilities.

#### **Vacuum Truck Services**



Vacuum trucks are a key tool when needing to transfer liquids and sludge from one tank/vessel to another. Vacuum trucks are necessary to clean systems out or for disposal such as with oil/water separators or with sludge amounts that need to be removed but may not justify the use of dewatering equipment. Our team of experts will pick-up and properly dispose of your liquids, oily water, high solids, or sludge. Whether it comes from an underground waste tank, pits, clarifiers, oil/water separators, sumps, trenches, and even pits, Handex will safely remove all materials and dispose of your waste in compliance with local, state, and federal regulations.

#### **Temporary Dewatering Services/Equipment Sales**



At Handex we provide a unique experience for wastewater treatment facilities to test out dewatering technology such as centrifuges, filter presses, and more. We can create temporary dewatering setups that allow you to test out dewatering equipment, and ensure it is the correct technology for your project. Also, if you are planning to upgrade your dewatering equipment, we can provide temporary solutions to allow the facility to make the best decision on a long-term dewatering system. Then once you have the perfect dewatering equipment in place, we can assist you through the buying process.

Whether you are looking for a temporary or permanent solution to your dewatering needs, Handex can assist you through the entire process.

#### **Polymer**



Polymers play a very important role in your wastewater treatment process and dewatering process. Handex can partner with your facility to determine the right polymer(s) for your needs and the right amount for your dewatering equipment. We understand that in wastewater treatment "one size does not fit all," therefore we create customized blends based on the makeup of your wastewater needs. Our team of experts will test your wastewater and determine which polymer blend is right for you.

#### **Lift Station Maintenance**



Lift stations are beneficial for wastewater treatment, but problems gone unnoticed or not taken care of can quickly turn into a larger sewage problem. If you have a lift station, we recommend that you have maintenance performed on your system regularly. A properly maintained lift station will save hundreds or even thousands in costly repair or replacements. Handex has the mechanics and equipment to assist in maintaining, rehabilitating or upgrading pumping systems and lift station controls, to ensure that your lift station runs smoothly and efficiently.

#### **Digester/Clarifier Cleaning**



Handex has over 50 years of experience in cleaning digesters, tanks, and clarifiers. Wastewater treatment plants routinely need to address accumulated solids in tanks due to equipment malfunctions or repairs. By routinely cleaning these structures, you can increase digestion, reduce fuel costs, and increase life operation of sludge pumps.

Handex has the equipment necessary to handle the grit and debris that accumulates in these structures and tanks. Our teams are trained in confined space procedures, appropriate safety equipment, and PPE is always used during sludge removal.

From cleaning to disposal, Handex can handle your wastewater needs, safely and efficiently.

#### Pit/Pond/Lagoon Cleanup and Closure



Handex performs lagoon closures as well as interim sludge removal. Sludge removal services are performed as a routine maintenance task to maintain freeboard or facilitate liner inspection or repairs. Sludge removal may be required for concrete basin or liner inspection or liner removal and relining.

Handex services encompass all aspects of the closure from planning to transportation and disposal of the lagoon waste. Handex utilizes a network of subcontractors to provide relining services for lagoons and concrete basins.

#### **Dredging - Remediation Support**



A cutter-head dredge enables the removal of sludge and sediment at a fixed or variable depth over the surface area of a lagoon. The dredge is used on basins where the agitation of the sludge and sediments is necessary to achieve effective removal, and where there is an adequate layer of surface water to float the dredge.

Dredges are also appropriate for a lagoon where a water layer is required to maintain odor control. The dredge can cut a swath eight feet wide and as deep as thirteen feet below the surface.

#### **Dewatering Technologies**



Handex comprehensive sludge dewatering technologies reduce volumes of liquid/solid mixtures by up to 80%. The end result is a reduction in transportation and disposal costs, and a step towards compliance with the EPA regulations to minimize waste generation.

Handex dewatering options include High Pressure Plate and Frame Filter pressing, Belt Press filtering, and Centrifuge processing.

Treatability testing provides information on a pilot scale for selection of the best dewatering equipment and costs associated with alternative equipment and filter aids to meet client specifications.





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**HANDEX CONSULTING**& REMEDIATION, LLC

