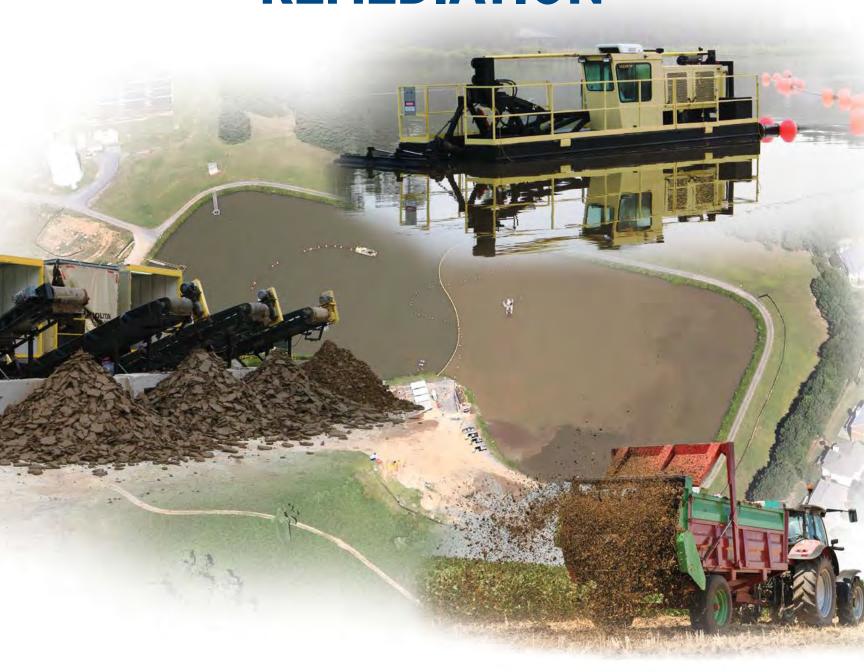
# SEDIMENT SERVICES

# **END-TO-END SOLUTIONS FOR**

# ENVIRONMENTAL REMEDIATION





# CARYLON SEDIMENTS GROUP

# ENVIRONMENTAL REMEDIATION: DOING IT ALL, DOING IT RIGHT

Whether you need to dredge a lagoon, dewater and dispose of unwanted sludge, purify a waste stream, or use biosolids to fertilize farmland, Carylon Sediments Group has the resources and know-how to take on any environmental challenge. Unlike other companies whose services stop partway, our turnkey sediment solutions can meet your needs start-to-finish.

# All the tools to safeguard your infrastructure

You name it — we carry it. Carylon Sediments Group owns and operates dredges, pumps, work barges, tanks, high volume hydrocyclone and rapid dewatering screen systems, belt filter presses, recessed chamber filter presses, clarifiers, and specialized and conventional excavation equipment.

# Customizable solutions to fit your budget

We understand the tight budget constraints municipalities and industrial companies are under. With over 65 years of experience in the industry, our team of experts know how to design, develop and complete cost-effective solutions across the sediment spectrum, all customized to your individual project.

# No job is too big—or too small

By partnering together, our three operating companies — Bio-Nomic Services, Metropolitan Environmental Services, and Mobile Dredging & Video Pipe — are able to cover more territory with more resources, more efficiently.

Carylon Sediments Group has the expertise and capital to complete part or all of any project. Each individual company has bonding capacity up to \$40 million per job — and that limit may be increased for specific projects.





# REMOVAL SERVICES: SLUDGE/SEDIMENT/ASH,

# FAST, COST-EFFECTIVE SOLUTIONS TO

# SLUDGE BUILD-UP AND SEDIMENTATION

# In-depth site analysis

Qualified technicians from Carylon Sediments Group perform site surveys and analyze samples to determine the best approach for removing solids. Then, highly trained and experienced crews eliminate accumulated sludge, sediment or oily wastes from virtually any location.

# Specialized equipment

Each project is unique. That's why Carylon Sediments Group employs specialized dredging, excavation or pumping equipment customized for the job and mobilized for efficient operation.



# Advanced removal technologies meet every need



#### **Hydraulic Dredging**

Our hydraulic dredges are equipped with the latest cutter head, suction, and auger equipment for quick, efficient cleanup and reclamation. We also lead the way with:

- Shallow draft dredging equipment
- GPS for positioning and accuracy
- Complete portability



#### **Pumping**

Maximum pumping capacities range from 2,000 to 4,000 gallons per minute (up to 300 cubic yards per hour).

- In-line booster pump(s) may be needed depending on distance from dredge to disposal location
- Off-road and low ground pressure equipment can be utilized in sensitive areas where normal excavation equipment is not suitable



#### **Excavation**

When hydraulic dredging is not an option, specialized excavation equipment can be used:

 Equipment can be GPS-equipped to ensure accurate dig and depth locations

# Building in added value

Customers can achieve optimum value by combining our removal services with Carylon Sediments Group's dewatering processes, beneficial reuse and land application services.

# DEWATERING SERVICES: SLUDGE/SEDIMENT/ASH/

# HELPING YOUR BOTTOM LINE

# ENRICHING THE ENVIRONMENT

Carylon Sediments Group specializes in reducing sludge to a fraction of its original volume, shrinking your handling and disposal costs. All dewatering equipment is portable and can be easily mobilized to your site with conventional trucking equipment.

#### **Experts at disposal**

Once our experienced technicians have removed the sludge/ash from your pond, lagoon, industrial tank or digester, we dewater the sludge to meet minimum percent total solid requirements for approved disposal or closure requirements.

#### Benefiting the environment

After dewatering services are complete, the remaining dry solids can be repurposed through biosolids land application or beneficial reuse, or disposed of in a landfill.



# Optimizing the dewatering process

#### **Processing flow rates**

Using high volume pumps, hydrocyclones and dewatering screens, Carylon Sediments Group can process flow rates in the thousands of gallons per minute range to remove solids from dredge process flows.

#### Handling the overflow

By combining this process with high volume clarifiers and chemical conditioning, we can handle the overflow to thicken and separate the solids from the process flow.

#### Broad range of dewatering techniques

The residual solids can then be dewatered using one of four techniques:

- 1. High Volume Screen Dewatering
- 2. Belt Filter Press Dewatering
- 3. Recessed Chamber Press Dewatering
- 4. Geotextile Tube Dewatering

#### Leading-edge equipment at your disposal

- Multiple belt filter presses and recessed chamber presses produce dry sludge cake suitable for land application/landfill
- Geotextile tube dewatering process creates a solid filter cake which can be transported for authorized disposal













#### Lagoon dewatering

We'll help you determine when in-place closure of lagoons is the right option. The sludge or ash in a lagoon can be dried or solidified using different methods and compacted to meet site requirements.

### WATER TREATMENT SERVICES

# IN-HOUSE LAB ENSURES BEST TREATMENT OPTION



The last thing you need is for anything to contaminate the liquid waste stream. Carylon Sediments Group utilizes our in-house laboratory for conducting settling and clarification studies to determine the best water treatment method and equipment for any given waste stream.

# Full array of portable equipment

Portable water treatment equipment including chemical dosing systems, pumps, inclined plate clarifiers, settling tanks and chemical precipitation equipment can be used individually or combined to meet the specific needs of the project.

# Discharging the treated water

Treated water can be discharged to a receiving body of water or returned to the plant process depending on project needs. Any solids removed during water treatment are pumped back to the dewatering equipment process for treatment and disposal or reuse.



### BIOSOLIDS LAND APPLICATION SERVICES

# HELPING FARMERS REAP THE PROFITS

Land application of biosolids has become the most cost-efficient biosolids management strategy for maximizing fertilizer benefits for America's farmers. At Carylon Sediments Group, we bring proven biosolids application expertise and technology to maximize crop yields, reduce farm costs, and maximize productivity.

# **Securing permits**

Our experts consult with area farmers and county/ state authorities to secure suitable land application sites and obtain the required permits. We supply any specialized engineering and technical data the permit application requires.

# Professional agronomic support

Routine monitoring by certified agronomists ensures environmental compliance through soil testing and environmental monitoring services. We'll also conduct on-site field surveys, soil evaluations and mapping to achieve optimal results.

# Scalable transport programs

We can complete programs on any scale to transport and land-apply liquid or dry biosolids. On site, our specialized application vehicles and sludge tillage techniques work hard to achieve heightened yields.



# LEADING THE WAY IN ENVIRONMENTAL INFRASTRUCTURE MAINTENANCE



Carylon Sediments Group is part of the Carylon Corporation, the nation's leading expert in environmental infrastructure maintenance. Our best-in-class regional operating companies offer specialized services in soil/sludge remediation, sewer system maintenance and water supply maintenance to safeguard critical environmental infrastructure.

#### Founded on innovation

From its beginning in 1949, Carylon has thrived on the notion of innovation, providing services that help maintain process efficiency, cost-effectively manage linear assets, and meet environmental compliance requirements.

# Guaranteed to get the job done right

Today, from locations throughout North America, the Carylon Sediments Group provides a full range of the most comprehensive environmental maintenance services available - and backs them with a guarantee that is unmatched in the industry:

"You must be satisfied or you pay absolutely nothing for our services."





# Let's work together.

The Carylon Sediments Group has the experience, expertise and equipment to make your next environmental maintenance project a success. Contact one of our operating companies directly to set up an appointment, or visit us online to learn more: www.caryloncorp.com



# **Carylon Sediments Group**

is a recognized leader in sediment and sludge management services throughout North America. Part of the Carylon Corporation, they have been providing environmental services to government and private clients for nearly 70 years.





# **CARYLON SEDIMENTS GROUP**

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