## **CASE STUDY**





# SUCCESSFUL ATTENUATION POND CLEANING AND RELINING PROJECT

### **Challenges:**

- Adverse weather conditions, including frost, heavy rain, and high winds
- These conditions made the cleaning and relining process more complex, as heavy rain increased the water levels in the pond
- High winds and frost posed risks during the liner installation
- Through meticulous planning, the ability to adapt to changing conditions and specialised equipment, designed to operate in even the harshest conditions



## NORTH DUBLIN

Attenuation ponds play a critical role in controlling flow rates by storing floodwater and releasing it gradually once the risk of flooding subsides. Over time, these ponds can become clogged with sediment and debris, reducing their effectiveness. Our team was tasked with restoring this vital infrastructure to optimal functionality.

The project was managed by our Large Projects Team and Civils Division, demonstrating our expertise in tackling complex environmental projects even in adverse weather conditions.

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#### **Initial Assessment and Project Planning**

The project began with a comprehensive site visit conducted by our Regional Manager, who assessed the condition of the pond and identified the key challenges that would need to be addressed.

Following the assessment, our in-house team developed a detailed project plan and cost estimation. Given the specific requirements of the project, we sourced high-quality 2mm HDPE liners from Austria to ensure durability and longevity.

#### **Cleaning and Relining Process**

The first step in the relining process was carefully pumping down the water level in the pond to prevent any downstream flooding. This required constant monitoring to ensure that the surrounding areas remained unaffected.

Simultaneously, all vegetation and shrubbery were removed from the site to prepare for the cleaning process.

With the surface debris cleared, the next phase involved the removal of accumulated sediment from the bottom of the pond. A team of four highly skilled operatives utilised a range of heavy plant and equipment, including Disab units, Jet Vac systems, excavators, artic tankers, and specialised dredging pumps.

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The dredged material was then safely transported to a licenced disposal facility, ensuring compliance with environmental regulations.

Once the pond was thoroughly cleaned, our team proceeded with the installation of the 2mm HDPE liner using advanced Leister welding equipment. This liner was crucial for ensuring that the pond could effectively manage floodwater in the future.



#### **Conclusion**

The successful completion of this attenuation pond cleaning and relining project in Dublin showcases The McBreen Group's capability to handle large-scale environmental projects, regardless of the challenges posed by the environment.

Our expertise, combined with the use of advanced equipment and meticulous planning, ensured that the pond was restored to its full functionality, ready to manage floodwater effectively for years to come.

WANT TO LEARN MORE ABOUT OUR ATTENUATION POND CLEANING AND RELINING?

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This project underscores our commitment to delivering high-quality solutions for our clients, no matter the complexity of the task.