

## Project Profile - Utilities



### PROJECT

Northern Ireland Framework  
Rehabilitation Programme 2007  
onwards (see over for locations)

### SUMMARY

Repair and protection of reservoirs  
suffering from soft water attack as  
part of a Framework programme

### PRODUCTS

**Steel Reinforcement Protector 841**  
**Monomix**  
**Monolevel 844SP**  
**Cementitious Coating 851**

### CLIENT

Department of Regional Development  
Water Department, Northern Ireland

### BACKGROUND ►

General deterioration over many years and lack of cover to the reinforcement had led to isolated areas of decay in the concrete.

In some reservoirs this was exacerbated by the presence of slightly acid soft water from the peat catchment areas. Extremely aggressive towards concrete, this caused the cement matrix to soften, creating an exposed aggregate surface.

### THE SOLUTION ►

Decayed concrete was repaired using **Steel Reinforcement Protector 841, Monomix** and **Monolevel 844SP**. **844SP** was spray-applied over the rough aggregate finish, then rubbed with a sponge to level between the high points of the aggregate, resulting in a superb mechanical key for **Cementitious Coating 851** as the final waterproofing layer. **851** also provided effective concrete cover to steel reinforcement on the soffits and roofs of several reservoirs as well as chemical resistance to soft moorland water. These products have passed the exacting demands of The Drinking Water Inspectorate and are approved under regulation 31 of the Water Supply (Water Quality) Regulations 2000.



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EMS 597350  
OHS 597351

Quality  
Environmental  
Health & Safety

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## NORTHERN IRELAND FRAMEWORK REHABILITATION PROGRAMME 2007 ONWARDS

LOCATION	CONTRACTOR	DATE
Alley Hill Service Reservoir, Drumquin	BSG Civil Engineering Limited	August 2007
Antville Service Reservoir, Nr Larne	BSG Civil Engineering Limited	August - October 2007
Ardour Reservoir, Kilconly	Geda Construction	June 2015
Avish Hill Service Reservoirs (Nos 1 & 2), Derry	BSG Civil Engineering Limited	July - August 2008
Ballyaghagan Lower Reservoir, Belfast	Geda Construction	July - October 2014
Ballyaghagan Upper Reservoir, Belfast	Makers Freyssinet	July 2008
Ballydougan Service Reservoir, Bleary, County Armagh	BSG Civil Engineering Limited	August - November 2014 & May 2015
Ballygomartin Reservoir, Belfast	BSG Civil Engineering Limited	November 2010 - January 2011
Ballysillan Lower Reservoir, Belfast	Makers Freyssinet	October 2008 - January 2009
Ballykine Service Reservoir, Ballynahinch	BSG Civil Engineering Limited	August 2013
Ballynure Reservoir	Geda Construction	November 2014
Ballysillan Upper Reservoir, Belfast	Makers Freyssinet	January - April 2009
Ballymageogh Service Reservoir, Co Down	Grahams Construction Site	November 2022
Battery Hill Service Reservoir, County Antrim	BSG Civil Engineering Limited	May 2008
Boghill Service Reservoirs (Nos 1 & 2), County Derry	BSG Civil Engineering Limited	August - October 2008
Brookeborough Service Reservoir, County Fermanagh	BSG Civil Engineering Limited	August 2015
Carron Service Reservoir	BSG Civil Engineering Limited	October 2007
Coolagh Reservoir, Galway	Geda Construction	January 2016
Cornavarrow Service Reservoir	BSG Civil Engineering Limited	February 2010

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LOCATION	CONTRACTOR	DATE
Carmoney Service Reservoir	BSG Civil Engineering Limited	July 2017
Corranny Service Reservoir, County Fermanagh	Makers Freyssinet	July 2008 & July 2009
Croaghmore Service Reservoir, Nr Ballycastle	BSG Civil Engineering Limited	May 2007
Crosskeen Service Reservoir, Antrim	Makers Freyssinet	January - May 2008
Cullion Service Reservoir, County Tyrone	Geda Construction	March-April 2014
Danescroft Water Tower, Lisburn	Makers Freyssinet	July 2009
Desertmartin Service Reservoir, Londonderry	Geda Construction	November 2013
Doochrock Service Reservoir, County Fermanagh	Makers Freyssinet	October 2008 - January 2009
Drumharvey Service Reservoir	BSG Civil Engineering Limited & Makers Freyssinet	October 2007 & February 2008
Eagray Service Reservoir	BSG Civil Engineering Limited	October 2007
Finvoy Service Reservoir, Ballymoney	BSG Civil Engineering Limited	March - May 2007
Forthill Service Reservoirs (Nos 1 & 2), Bangor, County Down	BSG Civil Engineering Limited	August - October 2008
Glassdrumman Service Reservoir, Lismaskea	Makers Freyssinet	March - August 2008
Gransha Service Reservoir, Islandmagee, County Antrim	Makers Freyssinet	December 2008 - January 2009
Killyglen Service Reservoir, Nr Larne	BSG Civil Engineering Limited	August 2007
Knockoneill Service Reservoir, Swatragh, Derry	BSG Civil Engineering Limited	October 2008
Loch Fea Reservoir, Co Tyrone	Grahams Construction	September 2019
Lyle Hill East & West Reservoirs, Nr Temple Patrick, County Antrim	Geda Construction	May - July 2013
Maddybenny Service Reservoir, Portrush, County Antrim	BSG Civil Engineering Limited	October 2013 - March 2014

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LOCATION	CONTRACTOR	DATE
Man 'O' War Service Reservoir	BSG Civil Engineering Limited	February 2010
McIlwans Service Reservoir, Mallusc	BSG Civil Engineering Limited	January 2009
Moneyglass Service Reservoir, Antrim	Geda Construction	November 2013-January 2014
Moydamlagh Reservoir, Moneyneaney	Geda Construction	May 2014
Muldersleigh Hill Service Reservoir, Whitehead	Geda Construction	November 2014
Newtownabbey Reservoir, County Antrim	BSG Civil Engineering Limited	June - November 2022
Newtownbreda Service Reservoir, County Down	BSG Civil Engineering Limited	September –October 2015 & February 2016
Parkmore Service Reservoir, Ballymena	Makers Freyssinet	November 2007
Pillar Hill Service Reservoir, Ballynahinch	BSG Civil Engineering Limited	September 2010
Plumbridge Service Reservoir, County Tyrone	Geda Construction	February 2014
Portstewart Service Reservoir, Coleraine	BSG Civil Engineering Limited	March - April 2007
Rashee Service Reservoir, Antrim	BSG Civil Engineering Limited	October 2008
Russells Quarter Reservoir, Downpatrick	BSG Civil Engineering Limited	November 2010
Silvertongue Service Reservoir, Cell 2	BSG Civil Engineering Limited	February 2010
Slaughtneil Service Reservoir, Mallusc	BSG Civil Engineering Limited	January 2009
Tamneymore Reservoir, Londonderry	BSG Civil Engineering Limited	August 2017
Tappagh Service Reservoir, Larne	BSG Civil Engineering Limited	May 2008
Tawneybrack Service Reservoir, County Antrim	BSG Civil Engineering Limited	March 2014
Togan Reservoir, Co. Monaghan	BSG Civil Engineering Limited	August 2019
Weir, Ireland		February 2018
Whiterock Service Reservoir, County Antrim		October 2022