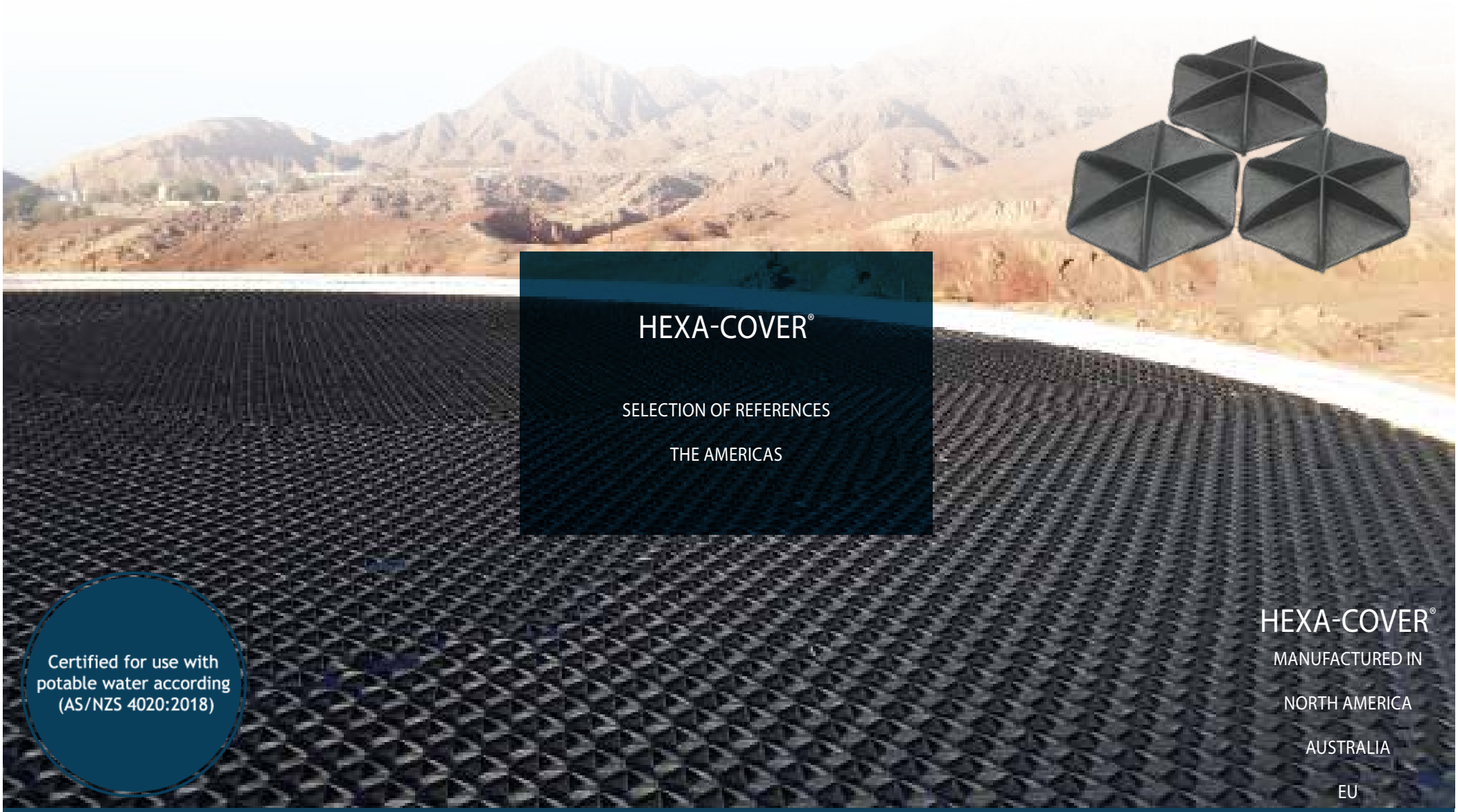
HEXA-COVER®



HEXA-COVER®

SELECTION OF REFERENCES

THE AMERICAS

Certified for use with potable water according (AS/NZS 4020:2018)

HEXA-COVER®

MANUFACTURED IN

NORTH AMERICA

AUSTRALIA

EU

Hexa-Cover
www.hexa-cover.com • info@hexa-cover.com

HEXA-COVER®

Brazil

Holambra, SP: 3.500 m² Water reservoir (irrigation)
Rio Grande du Sul: Wastewater (petrochemical)
São Paulo: Industrial wastewater
São Paulo: 1.000 m² Industrial wastewater

Chile

A total of 115.000 m² slurry lagoons for controlling odor and emission

Antofagasta: 26.000 m² Water storage
Antofagasta: 7.000 m² Irrigation water
Antofagasta: 5.000 m² Water reservoir
Antofagasta: Industrial wastewater
BioBio: 2.500 m² Wastewater facility
ConCon: 2.700 m² Wastewater facility
Iquique: 39.000 m² Water storage ponds
Lomas Bayas: 21.400 m² Tailings Ponds
San Antonio: Industrial wastewater
Santiago: Industrial wastewater, refinery
Santiago: 8.400 m² Industrial wastewater
Tarapacá: 5.000 m² ILS, PLS
Tarapacá: 2.400 m² Water storage facility

Ecuador

New Quito International Airport (Fire Fighting)

Mexico

104.000 m² Tailings Pond (controlling evaporation)

Canada

Close to 3.000 installations for the Hexa-Cover® Oil & Gas technology has been deployed, for i.e.:

* Reduce tank vent emissions
* Lower tank head space vapour load burdens
* Reduce water vapour
* Reduce heat loss
* Insulation for liquid surfaces
* Reduce offensive and carcinogenic BTEX odours
* Reduce expensive defoaming chemicals
* Reduce energy consumption

Canada

BC: Wastewater tank
Bonnyville AB: Industrial wastewater
Cremona, AB: Wastewater tank
Markham, ON: Wastewater tank
Macoah, BC: 1.000 m^2 Wastewater / WWTP
Millbrook, ON: Wastewater tank
Saskatoon, BC: 4.000 m^2 Wastewater pond
Toronto, ON: 4.000 m^2 Effluent lagoon
Truro, NS: Process water, dairy

City of Nakusp, BC

4.000 m^2 WWTP reservoir (evaporation and organic growth)

"Mike Pedersen, Director of Operations for Nakusp, looked at alternative solutions to control the massive amounts of algae in the pretreatment lagoon.

"Familiar with the Hexa-Cover®, he felt the product could nicely cover the lagoon, controlling the algae growth as the sunlight would not be able to penetrate into the water.

Additionally, the Hexa-Cover® would enable the aeration process and fluctuating water levels to continue"

Hexa-Cover® is manufactured in

* North America
* Australia
* EU

Hexa-Cover® qualifies for EQIP-funding

Certified for use with potable water according (AS/NZS 4020:2018)

USA

Alexandria, LA: 6,875 m^2 Wastewater reservoirs
Algona, IA: Industrial wastewater
Bedford, IN: Industrial wastewater
Potter Valley, CA: Water storage facility
Canton, OH: Industrial wastewater
City of Patterson, CA: Wastewater / WWTP
Clarksburg, WV: 4,730 m^2 Frac water tank
Cleveland, OH: Industrial wastewater
Clinton, TN: Wastewater, WWTP
CO: 5 x Frac water tanks
Dakota, IL: Industrial wastewater
Dallas, OR: Water storage tank
Dallas, WV: 2,315 m^2 Frac water tank
DeBuque, CO: 10,500 m^2 Water storage
Dickson County, TN: Sedimentation tank
Emporia, KS: Industrial wastewater
East Palestine, OH: 20,100 ft^2 Water tank
Francesville, IN: Industrial wastewater
Gallatin, TN: Municipal wastewater
Henderson, KY: Industrial wastewater
Houston, TX: Industrial wastewater

Green Bay, WI:
2,185 m^2 Deicing Storage Pond
Austin Straubel International Airport)

Green River, WY: Industrial wastewater
Jackson, OH: Industrial wastewater
Kanab, UT: Water tanks (wildlife)
Laurel, MD: Industrial wastewater
Lewis Run, PA: Water storage facility

La Porte, TX: Contaminated water
Marsing, ID: 20,000 ft^2 Water storage
Mesa Verde, CA: Water storage facility
Medaryville, IN: Industrial wastewater
Milkford, OH: 1,950 m^2 Wastewater reservoir
Monaca, PA: Industrial wastewater

Monroe, WI: 1,235 m^2 Equalization tank
Moorhead, MN: Water storage facility
Pacheco, CA: 1,800 m^2 Water reservoir
Port Arthur, Texas: Water Storage tank
Piketon, OH: Water storage facility
Port Arthur, TX: Water storage facility
Princeton, NJ: Water storage tank
Springfield, PA: Water storage facility
Sonora, CA: Wastewater
St. Croix, USVI: 32,300 ft^2 Storage facility

HEXA-COVER®

Austin Straubel International Airport

Green Bay, WI

2.185 m^2 Deicing Storage Pond

"The Austin Straubel International Airport required a new cover for its open water storage pond, which is used for deicing and storm water retention.

Critical to the operation of the airport, the open water pond requires a cover to serve as a bird deterrent and to protect wildlife from the toxicity of glycol.

In addition, the glycol and other chemicals used in the airport maintenance generate strong odors which also need to be controlled.

The unique Hexa-Cover® offers unique features for odor control, algae control, evaporation control and heat retention. The patented design incorporates hexagonal discs constructed of 100% recycled polypropylene with interlocking edges and a buttressed profile that allows for selfleveling, adjustment and dispersion ensuring maximum surface area coverage in all conditions.

The cover was installed with minimal time, cost and equipment, providing almost instant coverage.

Installed in less than 4 hours, bags of discs were emptied into the basin and the cover immediately began serving as a bird deterrent, eliminating odors and keeping wildlife from coming in contact with potentially harmful de-icing fluids.

When the pond level fluctuates, the tiles lay on the pond slopes and bottom until the water level rises again.

What could have been a major problem is now a worryfree operation thanks to the Hexa-Cover® System."

Agriculture

Bob Heers, Owatonna, MN
Slurry lagoon / Controlling odor and emssion

"We have found the Hexa-Cover® to be a simple and effective solution for covering our manure pit.

The individual tiles disperse across the entire surface and align themselves to form a free floating cover that requires no maintenance or upkeep.

Our experience leads us to believe that this cover is virtually indestructible and will have a extremely long lifespan"

Triple E Farms, IL
Slurry tank / Controlling odor and emission

"I installed the Hexa-Cover® on my new 67' diameter Slurrystore in June 2009. It spread out just like the company video shows!
I have another Slurrystore that I try to maintain a straw bio-cover on.

The Hexa-Cover® structure has less odor because its surface is almost completely covered while some of the straw has sunk or moved in my other structure. The straw also adds to the solids in the structure.

David Erickson, IL

"The Hexa-Cover® looks like they will last a long time. I believe that over time, the Hexa-Cover® Floating Cover will be more economical and more effective than a bio-cover.

Unlike a bio-cover or fabric cover, the Hexa-Cover® should also be maintenance free for many years"

Napa Berryessa Resort, CA

Wastewater (odor and organic growth)

Napa Berryessa Resort Improvement, chose Hexa-Cover® Floating Cover for a wastewater application for controlling odor, algae and evaporation

Hexa-Cover® Floating Cover is installed at Lake Berryessa Wastewater Treatment plant, 1465 Steele Canyon Road, Napa. The application is to cover two concrete equalization basins.

Process:
Raw sewage from homes and resort, flow from gravity and lift stations into headwork's Lakeside Spiral Screen, screened water into two equalization basins with Hexa-Cover® Floating Cover, then to Ovivo MBR, to effluent basin or alternate overflow basin, then pumped to reservoir off site for land application.

Plant flow capacity approximately 30,000 GPD now and at build out 60,000 GPD.

"The visit to the plant was a bit amazing. There was no odor from the "Hexa-Covered" EQ Basins. These EQ basins have very high odor potential and algae potential because of the heavy nutrients coming off the screen. There was no algae, the discs as advertised interlocked, they floated up and down with no problem, and could not help but reduce evaporation.

A solid cover presented safety issues, the discs did not. Summit Engineers was going to put aeration in these basins but saw a sample of the Hexa-Cover® product, called references then recommended the Hexa-Cover® installation. It penciled out better than aeration. That was important to this design build project, which Western Water Constructors, Inc. did with Summit.

Adjacent to these equalization basins are the effluent basin and overflow basin. These two basins were covered with algae.

The point; the Hexa-Cover® Floating Cover eliminates algae!

As proof, side by side basins, same plant, same time, two "Hexa-Covered" basins without algae and two uncovered basins with heavy algae. Also, no odor from the EQ basins.

The discs arrived in large sacks. Installation was simple; they simply dumped the discs into the basins. Installation was less than an hour. Contrast that to an aeration system"

Australia

NW:	8.000 m² Raw Water reservoir
NSW:	
NSW	Sludge thickener (WTP)
Sawpit	Wastewater / WWTP
Sydney	1.700 m² Water reservoir
Tanilba Bay	1.550 m² WTP Catch Pond
VIC:	
Bairnsdale	Water storage
Bendigo	Water storage
Bemm River	2.000 m² Raw Water
Gippsland	1.900 m² Water storage
Hayfield	6.000 m² Water storage
Laverton	Water tank
Omeo	4.300 m² Raw Water
South W Vic	Water pond
QLD:	
Biggenden	1.035 m² STP
Brisbane	1.100 m² Water Reservoir
Bromelton	Water tank
Fraser Island	Water tank
Gayndah	Water tank
Goomeri	Water tank
Clarendon	1.600 m² Irrigation water
Laura	Water storage
Morgan Park	3.100 m² Water Tank
Townsville	Water storage
Yeppon	11.000 m² Water storage
Yeppon	2.950 m² Water storage
Tasmania:	
Hobart	Raw Water tank
WA:	2.000 m² Water tank
	2.300 m² Water reservoir
	30.150 m² Water reservoirs

Water Corporation Western Australia, 6000 Perth
2.000 m² wastewater reservoir

"*Water Corporation (WA) installed Hexa-Cover® in a wastewater treatment pond in Leonora, Goldfield Region.*

We are happy to say, the installation went very smoothly.

To date the effluent quality supplied to the recycled water scheme is much improved as well as the quantity"

Leanne Brown, Analyst – Water Quality Risk

Australia

"How's this for a dam great idea?

Hundreds of these tiny hexagons are being installed on dams across the Great Southern as part of a new water saving trial.

The hexagonal discs - known as HexaCovers - are made from 100 percent recycled plastic and have been shown to reduce evaporation by 73 percent.

The covers were installed by majority Aboriginal-owned construction company, Benang and will reduce the need for water carting while also helping protect water quality.

Well done to Water Corporation for thinking outside the...square!"

Hon. Simone McGurk,
Minister for Training and Workforce Development,
Water - Industrial Relations

Hexa-Cover® secure Australia a reduction of 73% of water evaporation.

Link, article Government of Western Australia

Link, video ABC News

"Made from 100 per cent recycled plastic, the covers were shown to reduce evaporation by 73 per cent - saving more than 1.6 million litres of drinking water - during a recent trial involving University of Western Australia researchers at Wellstead, 90km east of Albany"

More Water Better Water

New Zealand

North Island - 7.000 m² Wastewater lagoon
South Island - 1.040 m² Sewage treatment pond
South Island - 1.900 m² Wastewater pond
South Island - 3.460 m² Wastewater
South Island - 19.500 m² Wastewater facility

HEXA-COVER®

Better Water and More of It

Jaymie Dawes at Omeo WTP Raw Water Storage Reservoir

The Omeo WTP raw water storage reservoir draws water from Butchers Creek which has had issues with algae growth in the past. Algae would be carried from the river into the lined reservoir above the plant. The algae make the water more difficult to treat to potable water standards.

Unwanted nutrients from ducks and wildlife accessing the reservoir also compounded the algae problem. As a result, the reservoir required regular emptying and cleaning, to mitigate the effects of algae on water quality and treatment.

Aiming to reduce reservoir maintenance and the intensity of treatment required, a thorough assessment of available reservoir covers was performed. Critical factors included capital cost, maintenance cost, and effectiveness in reducing UV penetration (thereby limiting growth of algae).

In this case significant evaporation reduction was seen as an added benefit rather than a critical factor.

Hexa-Cover® were determined as the preferred technology and were used to cover the raw water reservoir at Omeo WTP. Installation was achieved by pouring shipping containers of the tiles into the reservoir.

East Gippsland Water's Coordinator Environmental Services, Jaymie Dawes says the results of installing Hexa-Covers at Omeo have been positive.

"We installed 108,000 Hexa-Cover discs in June 2017, and since have seen a notable reduction in algae growth and E.coli in our raw water storage, which makes the water much easier to treat. We are now well into the third summer since installation and the reservoir has not needed to be emptied or cleaned."

The hexagonal tiles float freely on the water surface and arrange themselves in a grid that self-compensates for different reservoir shapes and varying water levels. The small size of the tile is an effective deterrent to waterfowl.

Up to 99% coverage of the surface area can be achieved, resulting in reduced evaporation, reduced contamination (from multiple sources) and improved water quality.

Even in situations where there are exposed surface areas as the tiles blow in the wind, water quality improvements appear unaffected.

HEXA-COVER®

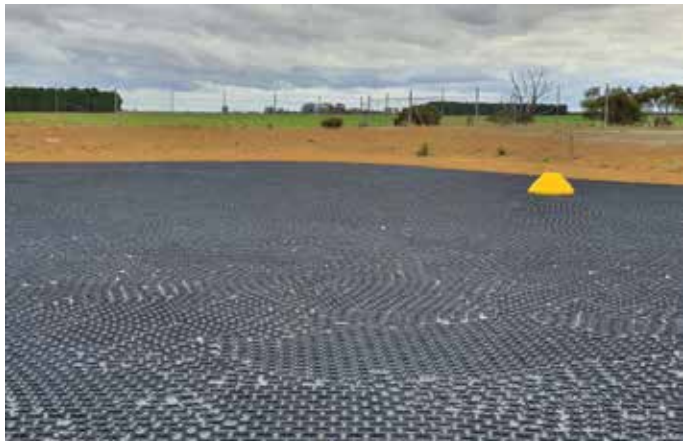
Better Water and More of It

Hexa-Cover® at Omeo WTP (Raw Water Storage Reservoir) – The Results Are In!

In June 2017 East Gippsland Water installed Hexa-Cover® modular covers on the raw water reservoir at Omeo water treatment plant, with the aim of controlling algae which was sometimes carried in from the water source.

This was achieved with great success, making the water easier to treat and eliminating the regular emptying and cleaning of the reservoir which was previously required. More details of the installation can be found in the February 2020 edition of Operator.

To quantify the effect of the Hexa-Cover®, thorough testing of water from the reservoir continued and was compared with results from the 2 years prior to installation.



The effects are described and quantified by East Gippsland Water as follows:

Measured Parameter	Effect:
Total Biovolume	95% Reduction
Potentially Toxic Biovolume	98% Reduction
E.coli	89% Reduction
Coliforms	Dramatic Reduction
Turbidity	57% Reduction
pH	Less variation
Water Temperature	Negligible Effect

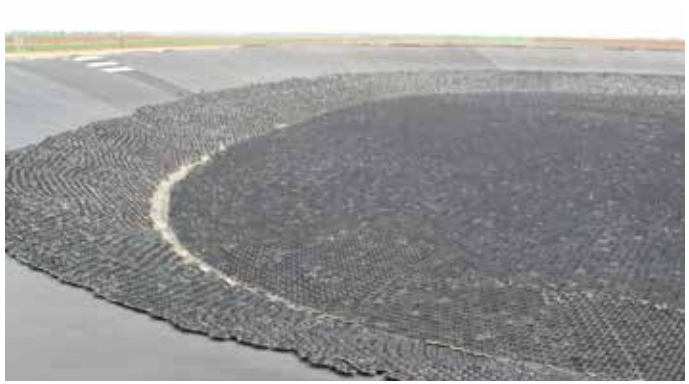
The hexagonal tiles float freely on the water surface and arrange themselves in a grid that self-compensates for different reservoir shapes and varying water levels.

The small size of the tile is an effective deterrent to waterfowl (leading to reduction of E.coli).

Up to 99% coverage of the surface area can be achieved, resulting in reduced evaporation, reduced contamination (from multiple sources), improved water quality and reduced operational & maintenance costs.

HEXA-COVER®



For more information

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