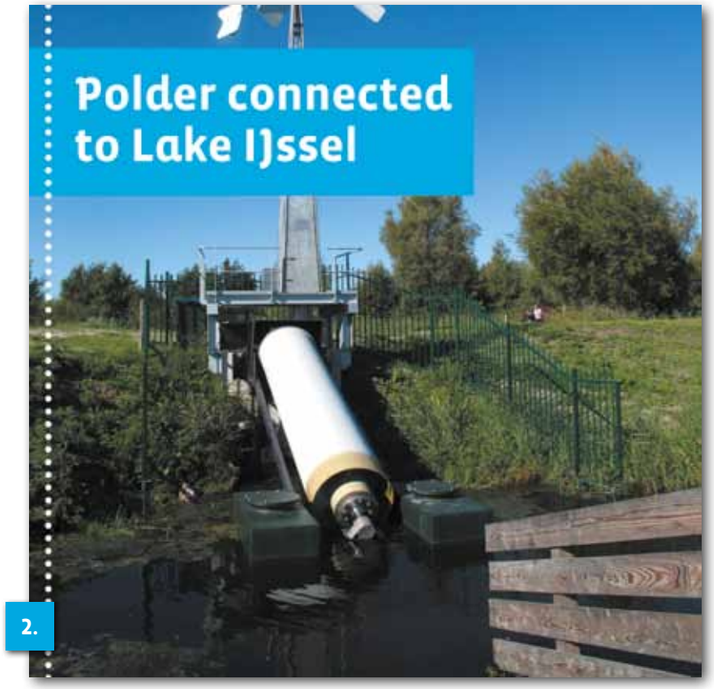
‘Inland shore’ Koopmanspolder: ecological living lab

1.

- 16 hectare pilot project area
- Water level management using fish-friendly screw pump
- Experiments with various water levels since 2014

Polder connected to Lake IJssel



2.

- Controlled flow of water from Lake IJssel into the polder. The water can return to Lake IJssel using a fish-friendly, energy-efficient screw pump
- An attraction flow entices fish to migrate into the polder. The screw pump allows the fish to return to Lake IJssel unharmed. A new tool for actively managing fish migration

Experiments with the water level

3.

Over 3 years, the water level was varied between -2.18 m and -0.42 m NAP, a water level difference of 1.76 metres
2014: natural water level regime with higher water levels during winter compared to summer
2015: simulation of a dessication with extreme low water levels during April till August
2016: simulation of a flood event (calamity) with a rapid fill of the polder to the level of Lake IJssel

Nature seizes the opportunity

4.

A new ecosystem develops in the Koopmanspolder
- suitable spawning and nursery grounds for fish
- attractive to many varieties of bird species
- overall increase in diversity of flora and fauna

Photographs:
‘Inland shore’ Koopmanspolder: Kwint v.d. Berg©
Nature seizes the opportunity: Underwater Photography: John van Schie©

Main conclusions from 3 years experimenting

5.

- The water level in the polder can rise and fall by up to 1.76 metres without major difficulties
- No groundwater nuisance in the hinterland despite large changes in water level
- The quality of the water has a positive effect on flora and fauna, particularly for fish and birdlife
- The fish-friendly screw pump is suitable for fish of up to 90 cm in length
- 24 species of fish have been identified in the polder, including glass eels
- Conditions for fish migration, spawning and growth appear to be favourable. Further research is necessary

Koopmanspolder generates a lot of interest

6.

- Local scale: attractive to recreational users and tourists
- Regional scale: extension plans for more ‘inland shore’ projects along Lake IJssel
- National scale: source of inspiration for new innovations (education and science)
- Global scale: potential export product in the field of innovative water management