Sub. 33

Non technical Account of the Proposed Landfill at Nevitt, Lusk, Co Dublin.

By

Declan White

BSc (hons) BSc (open)

Dip. Eng. Dip. Des. Inn.

AMIMechE

The fact is that Supermarkets want the Farmers of Fingal to grow more vegetables and potatoes etc. because they want to deliver the food fresh to their customers.

The Farmers of Fingal supply 50 – 60% of vegetables, potatoes etc to Ireland. They can increase this amount to 70%. This industry is worth 500 to 650 million euros to Fingal. The total for Ireland is 1.2 billion euros (Bord Bia), (PER YEAR).

The big secret to this industry is access to plenty of bacteria free water. The Geological Survey of Ireland and the Environmental Protection Agency have recognised this Aquifer of Fingal.

This is the most important Aquifer in Ireland in relation to Ireland's food supply. 2 million Irish people approximately eat food across Ireland that is grown in Fingal every day.

There is an argument that this water supply should immediately go to R4, because vegetables and potatoes etc. contain a high proportion of water in them, and because this Aquifer is a major part of the human food supply chain of Ireland. Therefore, all of this Aquifer in Fingal should automatically be upgraded to R4.

Part of this Aquifer is already designated R4. (No Landfill can be put on an R4 Aquifer). Generation after generation of Fingal Farms have built up this huge industry and it is all based on clean, bacteria free water. Why put a huge industry that is worth 500 to 650 million euros to Fingal Farmers, at risk? Why put the most important Aquifer (based on the food supply) in Ireland at risk? Why put the only water supply in Fingal at risk? Why put approx 20,000 people, who are drinking the water from this Aquifer at risk?

Water is still a major issue for most countries in the world, including Fingal. Fingal County Council is constantly telling the citizens of Fingal "Water is precious, please conserve it". So why did Fingal County Council want to put a landfill in the centre of the most important Aquifer in Ireland?

It is quite clear that Eamon Gilbert and PJ in Fingal County Council did not do their jobs or research properly. They should have completed a survey of all borehole wells in the Aquifer and then they would know that this aquifer is able to produce millions of litres of water per day. They are required by law to keep a record of all wells above 250,000 litres per day and they did not.

In the survey carried out by the local people, we have identified individual wells producing up to 2,500,000 litres per day. That is 2 ½ million litres per day from one well.

For any person or a group of people to make an honest professional decision on whatever subject, you must obviously need to have all the facts in front of you. And then, you make an honest professional decision.

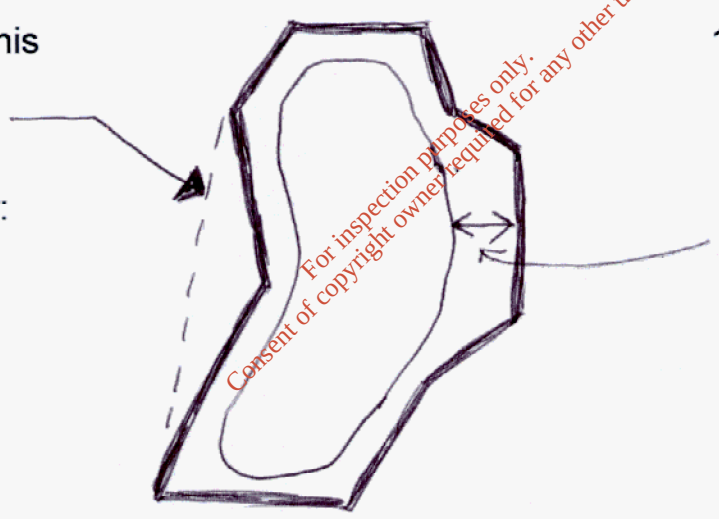
In relation to this proposed landfill, how much water can this Aquifer produce on a regular basis and this is obviously proved by the long history of the horticultural industry. This is a major fact that they do not and could not include in their decision making process, because they just did not know.

The local people are in the process of completing this survey of the wells. At this date, the 29th of September 2006, we estimate the survey to be 50 – 60% complete. And we are up to approximately 30 million litres of water per day, and still counting. We do not have to have water shortages in Fingal, because we have millions of litres of water, right under our feet.

We have very little clay in the Nevitt. For example, BSA5, only 6.9m to Bedrock, BGB2, only 7.6m to Bedrock, SG51, only 10.9m of clay. We have only pockets of clay, greater than 20m, inside footprint. Remember, they are supposed to dig down 10m and leave 10m under the proposed landfill, therefore this requires 20m of clay minimum. Let us examine the shape of the landfill:

Why not follow this line?

Answer: Not enough clay.



Will you fit 9.4 million tons into this very unusual shape for a landfill? No, remember, there is a height restriction (0.84 tonnes to cu. m. of space).

The initial plan was to have all vehicles coming into and leaving the Nevitt by the M1 Motorway, and therefore no vehicles on small local roads. Because of too much archaeology, too much gravel and not enough clay, they decided to move the entrance to the West of this site. This will obviously attract vehicles from the West, on small local roads. There are tailbacks on the M1 at the moment, it already is at 79% capacity and increasing 17% every year (See Tim Chillingworth's report.) This will obviously create queuing of vehicles on the M1 and small local roads.

We have three hills higher than the Nevitt, and the local people would be looking down on this landfill. Two of these hills are high amenity. We have generally high winds across these hills, which would carry bad odours etc., beyond the boundary of the proposed landfill.

They are proposing to close a road, which is a direct link for 50% of school children to go to the local school (see principal's report). This means the children would be cycling past all these lorries, cars and vans. It would be only a matter of time before one of our children is killed.

There is also a small forest in the Nevitt which also raises questions.

There are 5 ways for the lechate to contaminate the only water supply in Fingal;

A: If you examine the topography, 50% of this proposed landfill is sloping North and North East. i.e. directly to the only water supply in Fingal (see 1m contour map).

B: If you examine the borehole log records, they will prove the presence of lots of gravel and water flows through this gravel very quickly. For example, see the pump test results.

C: The bedrock is highly fractured.

D: There is a major North South Fault Line.

E: The syncline is much bigger than mentioned in the EIS (See K T Cullen's report).

They are proposing to put a landfill on the side of a hill. There would be a lot of water flowing down, when it rains, into the landfill and also making the unusual shape of a landfill unstable.

The Bog of the Ring is a national heritage area, NHA, and a proposed special area of conservation, SAC. A river flows through the Nevitt, (See DVD), on its way to Rogerstown Estuary. Rogerstown Estuary is a Bird Sanctuary, Special Area of Conservation, Special Protection area, and National Heritage Area.

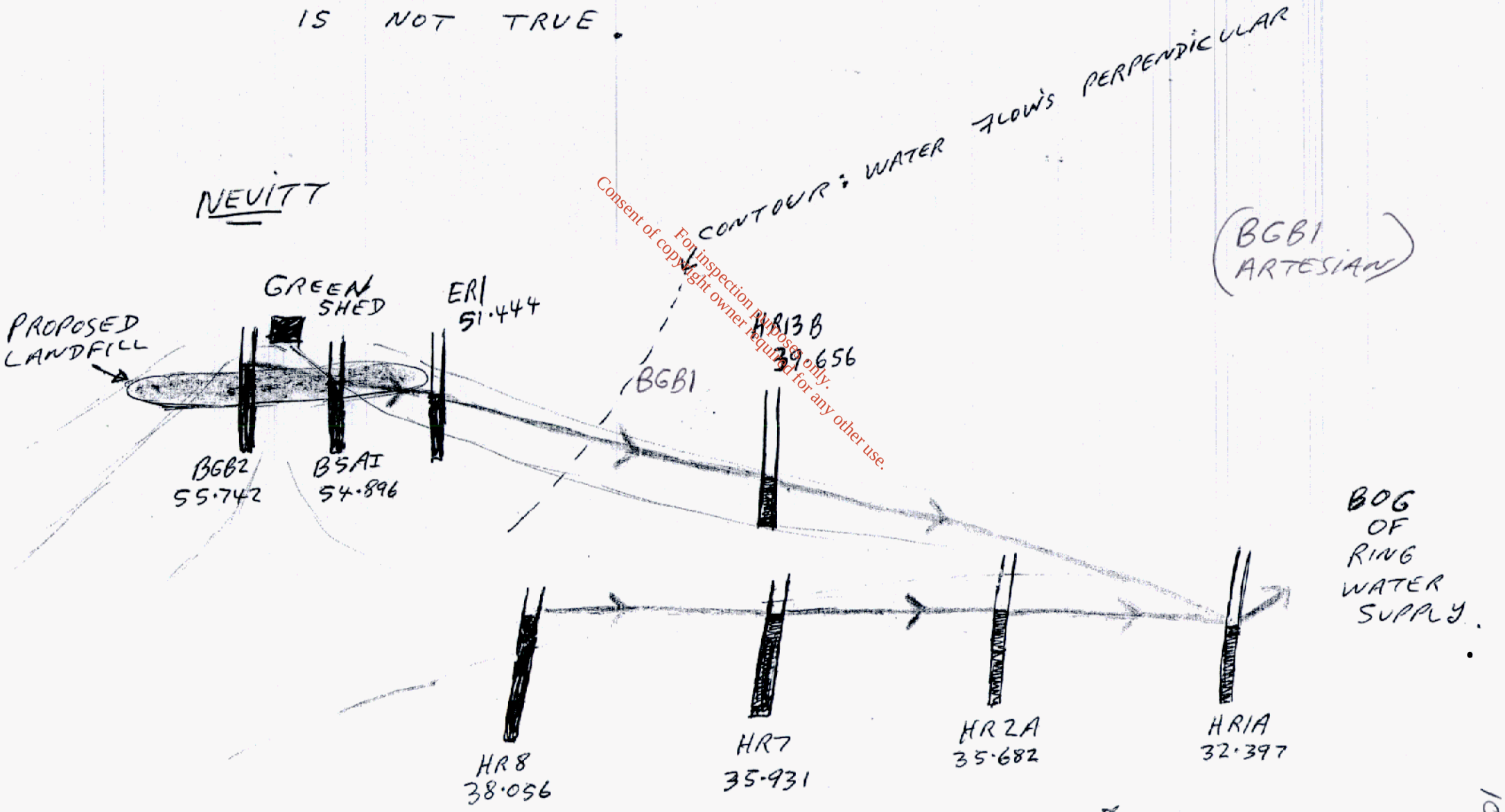
Along the river and between the Nevitt and Rogerstown Estuary, 4 farmers pump water out for irrigation of crops (Arnolds, Bells, Moores, Weldons). This river is part of the food supply chain of Ireland.

A tourist centre could be built at the Nevitt (Holy Sanctuary), but unfortunately the smell ploom would extend over the tourist centre. Not very good planning! There is a Nevitt in France and they have a tourist centre, attracting 300,000 people every year.

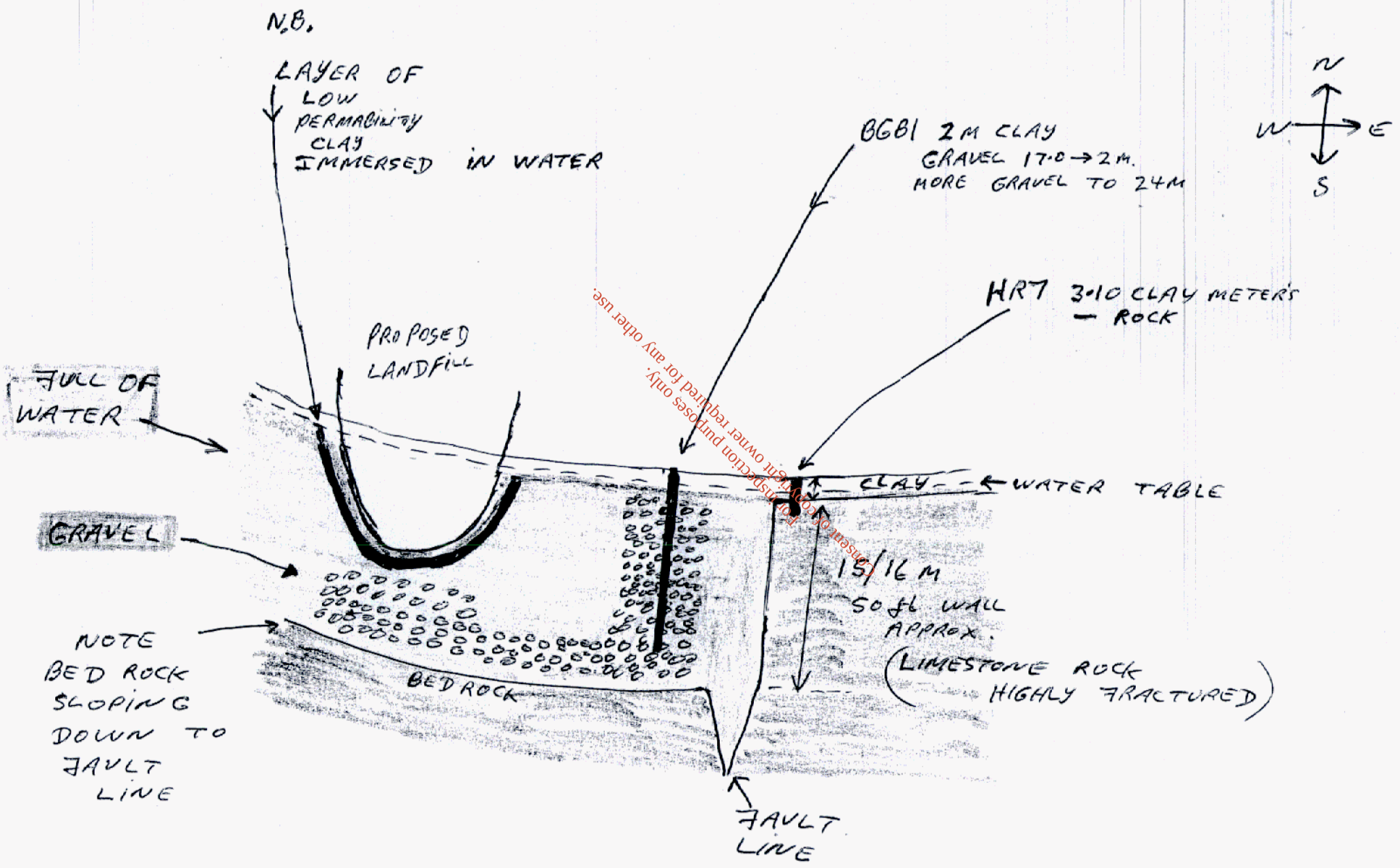
There was lots of evidence to tell the consultants that there is a plentiful supply of water in the Nevitt. The aquifer map of Fingal, the maps of 1863 which shows all the water springs in the area, the map of 1760 which shows the Bog of the Ring was up at the Nevitt. If you talk to the locals, they would tell you that this area is full of water. To grow food, you need plenty of water, and that is why Fingal is sometimes called 'Little Holland'. If you talk to Jim Burke (Retired senior engineer), who worked on the Bog of the Ring in 1963 (see his report). If you read KT Cullen's reports. When they completed the pump tests, it proves lots of water in the Nevitt. For example, PW1 can produce 560,000 litres of water per day, PW2 can produce 311,000 litres per day and PW3 can produce 623,000 litres per day.

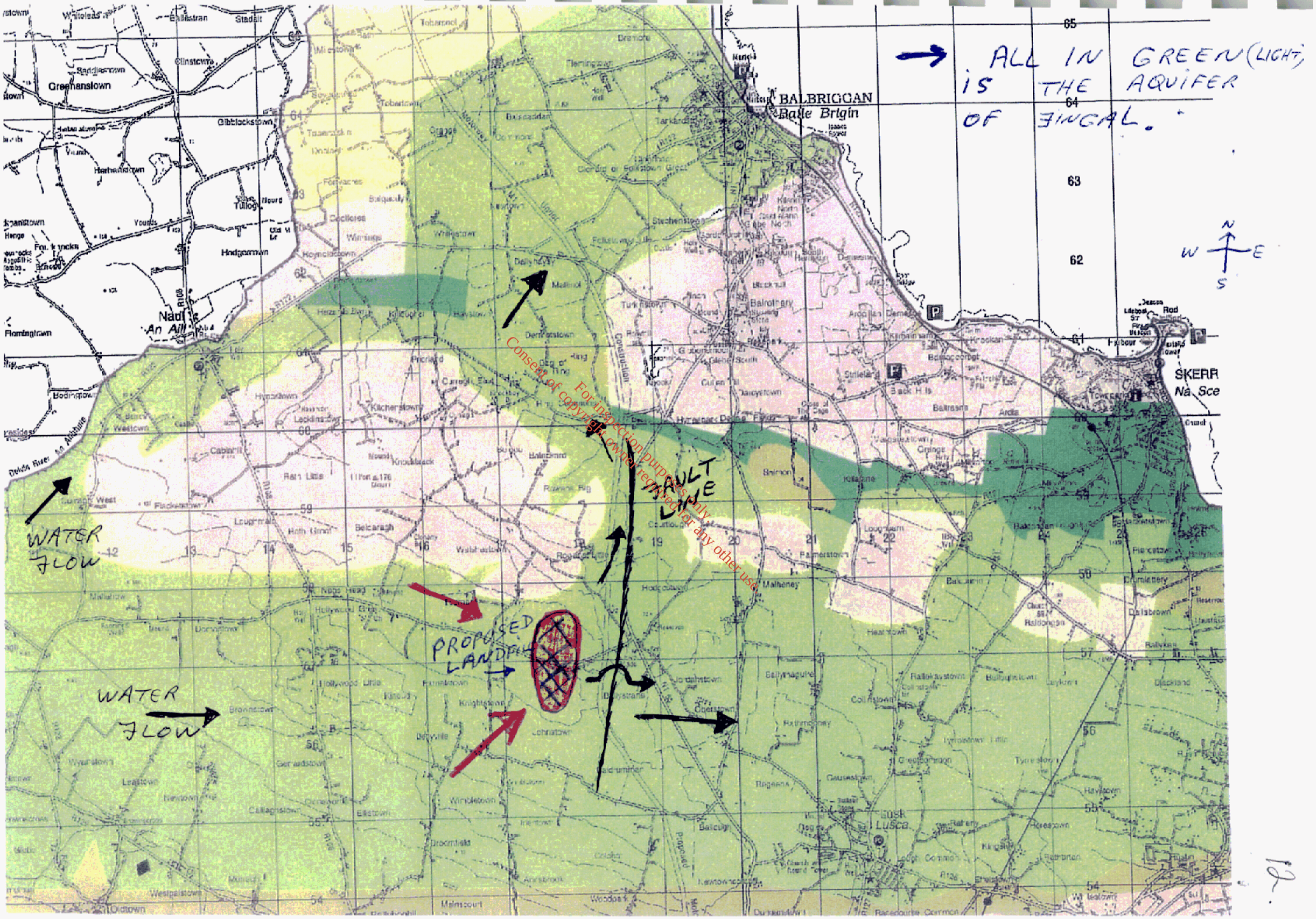
We have also 2 Artesian Wells in the Nevitt and 1 more Artesian well on its way to the Bog of the Ring. Another borehole has been drilled (beside the Nevitt), by Thornes, this year 2006. This well can produce 600,000 litres of water per day. Kerrigans, to the South of this proposed site, can produce over 1 million litres of water per day. It is quite clear we have a new extension to the water supply at the Nevitt. For the people of Fingal, no more water shortages.

WATER LEVEL IN BORE HOLES WHICH PROOVES, THE SO CALLED WATER DEVIDE AT HR13 IS NOT TRUE.



18th AUG 2005



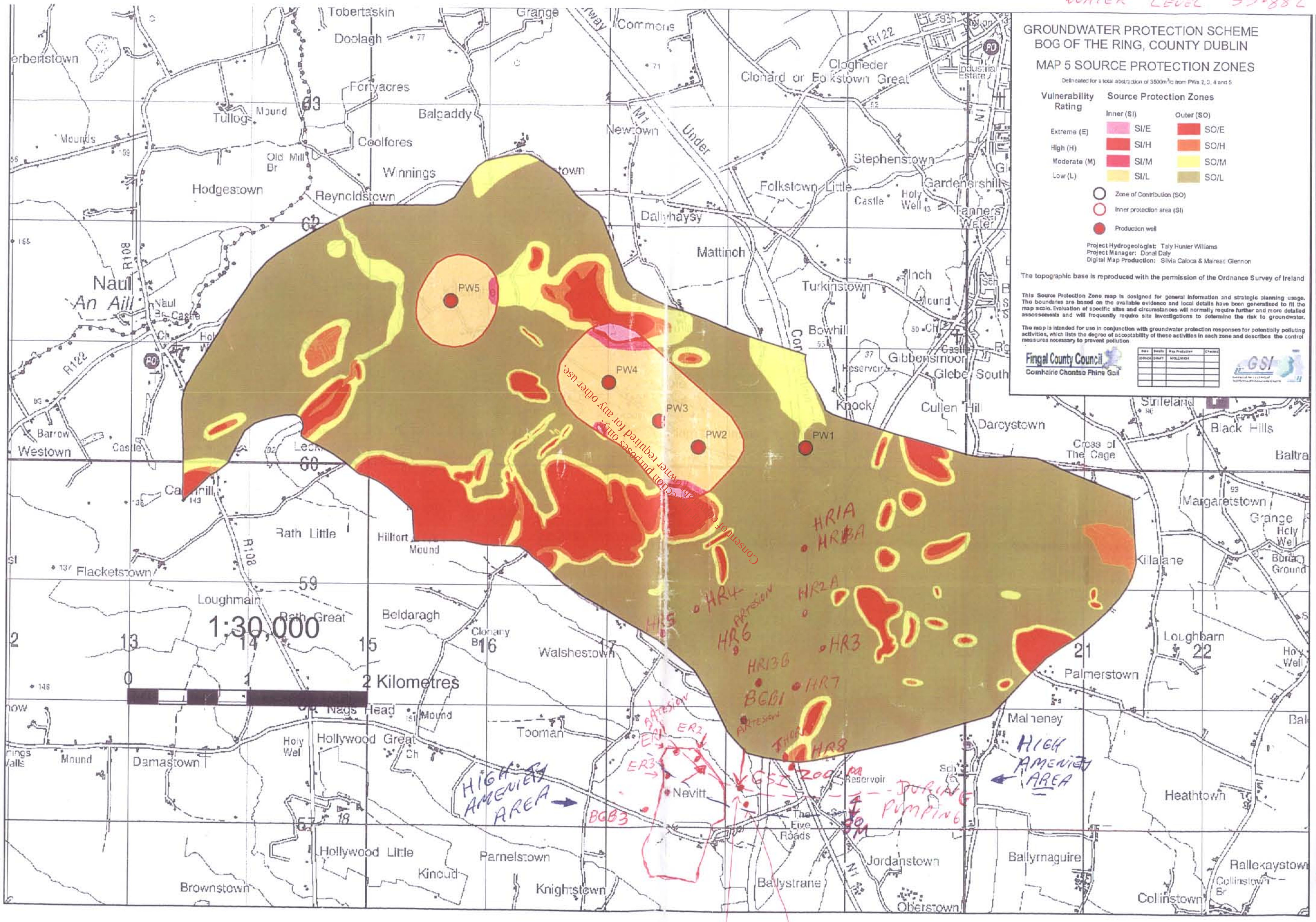


ER2
GROUND LEVEL 46.37
UNABLE TO PENETRATE GRAVEL 25.75
WATER LEVEL

ER3
GROUND LEVEL 56.75
SANDY GRAVELLY CLAY
WATER LEVEL 55.282

BGB3
GROUND LEVEL 62.18
VERY GRAVELLY CLAY 24M → 14.00
WATER LEVEL 55.882

13



GROUNDWATER PROTECTION SCHEME
BOG OF THE RING, COUNTY DUBLIN
MAP 5 SOURCE PROTECTION ZONES
Vulnerability Rating
Source Protection Zones
Inner (SI)
Outer (SO)
Extreme (E)
High (H)
Moderate (M)
Low (L)
SI/E
SI/H
SI/M
SI/L
SO/E
SO/H
SO/M
SO/L
Zone of Contribution (SO)
Inner protection area (SI)
Production well
Project Hydrogeologist: Taly Hunter Williams
Project Manager: Donal Daly
Digital Map Production: Silvia Caloca & Mairead Glennon
The topographic base is reproduced with the permission of the Ordnance Survey of Ireland
Fingal County Council
Comhairle Chontae Fhine Gall
GSI
1:30,000
0
1
2 Kilometres
PW1
PW2
PW3
PW4
PW5
HR1A
HR1BA
HR2A
HR3
HR4
HR5
HR6
HR7
HR8
HR13B
BGB1
BGB3
ER2
ER3
ARTESIAN
GSI 200M
DURING PUMPING
HIGH AMENITY AREA
HIGH AMENITY AREA
Naul
An Aill
Hodgestown
Reynoldstown
Winnings
Coolfores
Balgaddy
Fortyacres
Doolagh
Tobertaskin
Grange
Commons
Newtown
Dallyhaysy
Mattinch
Turkinstown
Bowhill
Folkstown Little
Stephenstown
Clogheder
Clonard or Folkstown Great
Gardenershill
Tanners Water
Gibbenstmoor
Glebe South
Knock
Cullen Hill
Darcystown
Cross of The Cage
Margaretstown
Killalane
Black Hills
Baltra
Loughbarn
Palmerstown
Malheney
Heathtown
Ballymaguire
Rallekaystown
Collinstown
Jordanstown
Oberstown
Ballystrane
Five Roads
Nevitt
Reservoir
Tooman
Parnelstown
Knightstown
Walshestown
Beldaragh
Clonary
Hollywood Great
Hollywood Little
Kincud
Brownstown
Damastown
Naul's Head
Flacketstown
Loughmain
Rath Great
Rath Little
Hillfort Mound
Westown
Barrow
Castle
Tullog
Mounds
Mound

21
GROUND LEVEL 51.66
GRAVELY CLAY
WATER LEVEL
?.444

WATER LEVEL ↓
HR8 38.058
HR7 35.931
HR2A 35.682
HR1A 32.397

HR13B
GROUND LEVEL 41.52
BOULDER CLAY WITH COBBLES
WATER LEVEL 39.666

BGB1
GROUND LEVEL 43.92
OVER-FLOWING
VERY GRAVELY CLAY
17M → 2M

BGB3
PW2