



LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

	Directors
Chairperson	Tom Byrne
Vice-Chairperson	Peter Byrne
Secretary	Lynda Huxley
Treasurers	Joe Flannelly and Pat Gibbons
Technical Advisors	Chris Huxley, Cilian Roden, Philip Doddy
	Sean Coyne

Present:		
Antony Baynes	Pat Gibbons	Pat McHale
Peter Bowyer	Declan Glynn	Richard Murphy
Peter Bryne	Ger Heverin	Cilian Roden
Tom Byrne	Shane Heverin	Barry Rourke
John Campbell - IFI	Teresa Horan	Sabine Springer
Sean Coyne	Walter Hughes	Pat Stanton
Ronan Cusack - IFI	Chris Huxley	Michael Sweeney
Philip Doddy	Lynda Huxley	John Thornton
Karol Donnelly	Padraig Kelly	
Kieran Flynn - LIFE	Al McDonnell - Cllr	
APOLOGIES : Deborah Broughton Ray Broughton Joe Flannelly	Celia Graebner Damian Jordan Peter Comer Rachel Irwin	Michael Kingdon Jaroslaw Majkusiak Peter Mitchell Michael Sweeney

AGENDA ITEMS

The Chair welcome everyone to the meeting

Minutes of the last meeting

The minutes of the last public meeting held on 13 June 2023 were circulated by email and it was taken that they have been received and read by all present.

Proposed : Tony Baynes

Seconded : Sean Coyne

Matters Arising

There were no matters arising.

LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

Lough Carra LIFE Project update by Kieran Flynn, Project Manager

Kieran briefed the meeting on various aspects of the project under the following headings:

Groundwater study by Geological Survey Ireland (GSI) - part of LIFE Project Team

Second round of dye tracing, and the follow up sampling/monitoring has been completed. All samples are currently being analysed. Initial results have been interesting, but no formal conclusions will be made until analysis is complete. Mapping of the karst features continues.

Water balance is being measured. Data loggers are to be installed at 7 locations of inflowing streams and springs around the lake. They will measure pressure, amongst other things, which will allow us to calculate flow and might provide information on subterranean features.

Agri-environment Scheme

Farm plans have been completed and posted out to 32 farmers last week. The first farmer workshop is scheduled for 29th August. Implementing the supporting actions from the farm plans will commence e.g. fencing, ponds etc.

Farms were selected in areas where we can effectively monitor impacts on water chemistry and biology. This is just year 1. The intention is to get the agri-environment scheme well established this year and to expand it next year.

Surface And Ground Water Monitoring

Monthly chemistry monitoring continues at 33 inflowing points. Kick sampling is used for biology monitoring with second round due in the autumn to help identify good/bad areas.

Lake Monitoring

Year 1 is baseline of the monitoring programme:

- a) Submerged vegetation monitoring - Snorkel surveys
first round completed in July with the next stage planned for Sept.
- b) Marl crust monitoring
Woodrow, LCCA, and LIFE Project team carried out sampling over the last 2 weeks. Next step is analysis of the samples.
- c) Emergent vegetation monitoring
LCCA and LIFE Project team will be carrying out these surveys in August and September.
- d) Bats are being monitored by Caroline Shiel and NPWS Rangers. They carried out bat surveys in July and will continue in September.
- e) Invasive species are being monitored by NPWS. Pdraig Farrell is collecting the data.

In addition, NPWS are looking to fund an extra piece of monitoring work as part of the LIFE Project - 3-D mapping of the lake's water movements with the help of Dr Peter Bowyer.

Biodiversity and Site Restoration

- a) Forestry
At Cloonee a Bio Management plan has been completed and submitted to the Project. In addition, rhododendron control is ongoing at Towerhill.
- b) Drains
This is being reviewed with OPW in the Autumn.
- c) Wetland construction

LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

Moorehall public toilets located at the car park close the lake shore has been identified as potential location for a reedbed filtration system for the associated septic tank. Discussions are ongoing with MCC as to when and how this can be done.

d) Bat habitat enhancements

Bat survey results will guide the next steps regarding roost enhancements. The plan is to have mobile bat roosts. Coillte have constructed two more mobile bat roosts and are reviewing options for installation locations.

e) Invasive species control

Padraig Farrell is continuing with the mink, and Greylag Geese controls throughout the summer. The Project is currently reviewing plans for the Zebra Mussel control strategy.

Public outreach and awareness

a) Social media accounts remain active – Twitter and Facebook.

b) Website has recent news and updates.

c) Project promotional film is currently in production. This is an educational animated film that can span all ages.

d) EPA Water conference, June.

i. Lough Carra and LIFE project was mentioned.

ii. RTE's coverage of the event used Lough Carra as an example of declining water quality in Ireland!

e) Otter research project with the South East Technological University (SETU) carried out surveys around Lough Carra in July assisted by LIFE project team.

a) JWCL Geopark underwent Unesco assessment July and the Lough Carra LIFE Project Team were represented.

b) A stakeholder group is being established at the end of summer. This will be a small group of local individuals that will help guide the Lough Carra LIFE Project. The group will meet 3-4 times a year. If anyone is interested in being a part of this stakeholder group please contact Kieran by email kflynn@mayococo.ie or tel. 094 906 4964

Presentation by Dr Philip Doddy – Update on the Research Project on the Marl Crust

Dr Philip Doddy gave an illustrated presentation detailing his research project on the marl crust of Lough Carra

He started by explaining that marl crusts occur on layer of bed rock or on individual stones. They are made up of part calcium carbonate crystals bound together by cyanobacteria which form the crusts that can be several centimeters thick.

Marl crusts occur in clean lakes with good (low in nutrients) conditions that have a diverse cyanobacterial community where there are low numbers of green algae and low amounts of chlorophyll. However, as nutrient pollution occurs and the green algae numbers increase this causes the amounts of chlorophyll to rise. Therefore, measuring the level of chlorophyll in the marl crust gives a good indication of how bad or good things are with the lake. His research project has been measuring chlorophyll in the marl crusts of Lough Carra.

Philip explained the progress of nutrient pollution:

- Water turns green and dark

LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

- Green scum develops on rocks and washes up on the shore
- Underwater plants and charophytes die as the dark water blocks out the light
- Bulrushes and reeds spread and become denser
- Sensitive insects like mayflies die out
- Oxygen in the water declines due to rotting algae and plants
- Trout and salmon cannot live in these conditions
- During bad bloom events, the water becomes too toxic to swim in or drink
- Dogs die as a result of drinking the toxic water (or licking it off themselves)
- The marl crust breaks down and falls apart, releasing nutrients to the water
- All that was special about the lake's ecosystem is lost and cannot be recovered

Monitoring of the marl crusts of Lough Carra will continue during the Lough Carra LIFE Project and will be used to assess the lake's condition and identify any changes/improvements that happen during the project. Taking samples of crust is being carried out this summer so that they can measure chlorophyll levels in crusts from all around the shores of the lake. Because this is being carried out now in the early stages of the LIFE Project it will give an indication of conditions in each part of the lake and set a baseline. After 5 years, it will be repeated to see if things have changed, improved or deteriorated. This will also enable measurements to be taken in future years to compare with the baseline.

This summer is the first full scale monitoring programme but a pilot was carried out in September 2022. The location chosen by the Project Team was where the Annies river meets the lake and the nearby shoreline. Marl crust samples were taken from various points.

This summer twenty different sample areas were identified on the following basis:

1. To be as representative as possible
2. To include areas with incoming streams or springs
3. To include areas of the catchment where the Lough Carra agri-environment scheme will operate

All the sampling has recently been completed and the samples are frozen and ready for the pigments to be extracted and analysed.

Questions & Answers:

Q from Chris Huxley: What were the results of last year's sample results

A: One sample was worst ever seen at Cloondaver. Shocked when saw the results. Bad sign for that area of the lake.

Q: Will it recover?

A: Not in our lifetime.

Q from Cilian Roden: In your PhD work when you moved rocks from one polluted area and moved to a good area of the lake the marl recovered.

A: Yes that's true and it gives some element of hope but we really need to prevent areas from becoming polluted.

Q: Has there been any tracking temperatures to see how that affects the marl e.g. great barrier reef

A: Studying marl crusts is new so there is not enough historical information.

Q Chris Huxley: Looking at measuring levels of phosphorus in the lab on the marl.

A: Clear correlation in total phosphorus in the water and chlorophyll level.

Kieran Flynn: Lough Carra LIFE has a comprehensive monitoring regime. Hope the monitoring schemes will all complement each other.

LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

Chris Huxley: The lake is suffering from reed die back in certain areas. This has happened around Europe but no explanation. Don't know if it is linked to nutrient levels.

Chairman: Recently heard a representative of the EPA being interviewed on Newstalk regarding the River Barrow where he stated that eutrophication of the river was widespread and that agricultural practices were identified as the primary source. It seems that Lough Carra is facing a similar situation with the primary source being the same.

Treasurer's Report

Credit Union balance is €10,598.89

Bank of Ireland balance is €131,202.20 - ring fenced for land purchase/lease for the LCCA contribution to Lough Carra LIFE

Donations have been received as follows:

€1,000 from Cllr Al McDonnell

€250 from Mayo CoCo Cathaoirleach's Award

LCCA Update by Chris Huxley

The LCCA is trying to secure land that has either lakeshore or riverbank. However, all efforts have so far been unsuccessful.

There is 31 acres of SAC at Kilkeeran for sale which we thought we would not be able to buy. However, the auctioneer has recently sent an email to inform that LCCA still has the highest bid on this land. If the LCCA is successful in securing this land then it would be exciting from the conservation point of view. Will provide update when have any further news.

NPWS are buying 67 acres of farm land at Ballycally and this purchase is close to being finalised. There is an agreement that this land can be used for LIFE project demonstrations e.g. planting and managing native hedgerows etc. Chris Huxley, representing LCCA, has walked this land with NPWS ecologist and agreed on an outline plan. A team of ecology students from Texas State University worked with LCCA to provide an initial summary of the vegetation on the Ballycally land which has been submitted to NPWS. Their survey identified three types of vegetation and provided a baseline for monitoring this land going forward.

LCCA has provided lots of volunteer man hours to the Lough Carra LIFE monitoring programme.

ATU Mayo student Joanne McGovern has done a vegetation survey of land near Moorehall that was grazed with NPWS Irish Moile cattle. This was carried out as a work placement with LCCA in the early summer. She produced an excellent report which will be submitted to NPWS and will help advise on the correct grazing regime for this lakeshore land. It is an ecologically important piece of orchid rich grassland which also contains cladium fen – an Annex I habitat of national importance.

LCCA will be republishing the Catchment Map which is currently out of print. They will also be producing two further information booklets, one on special plants found on limestone grassland and the other on the aquatic plants of the lake, with funding through the water communities grant.

Any Other Business

There was no other business.

LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

15 August 2023

8.00 To 9.30 pm Carnacon Community Centre

The Chair thanked all speakers and everyone for attending.

NEXT MEETING

The next meeting will be held on Tuesday 14th November 2023 at 7.30pm. This will be an AGM followed by a general meeting. The location to be confirmed. All are Welcome.

All meeting minutes and other documents relevant to LCCA can be found on the Lough Carra website
<http://loughcarra.org/catchment-association/>