



LOUGH CARRA CATCHMENT ASSOCIATION (LCCA)

Reg. Charity No. 20206138

MEETING MINUTES

13 June 2023

8.00 To 10.15 pm Belcarra 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:		
Ulrich Bartels	Shane Galvin	Joanne McGovern
Ute Bartels	Celia Graebner	Pat McHale
Antony Baynes	Pat Gibbons	Peter Mitchell - LawPro
Peter Bowyer	Donna Hyland	Patrick Murray
Tom Byrne	Chris Huxley	Mary Roche - ASSAP
Sean Coyne	Lynda Huxley	Cilian Roden
Ronan Cusack - IFI	Damian Jordan - LIFE	Sabine Springer
Joe Flannelly	Michael Kingdon	Alan Stephens
Kieran Flynn - LIFE		
APOLOGIES : Philip Brookes Deborah Broughton Ray Broughton	Peter Byrne Peter Comer Philip Doddy Sinead Higgins	Rachel Irwin Michael Sweeney

AGENDA ITEMS

The Treasurer welcomed everyone to the meeting on behalf of the Chair.

Minutes of the last meeting

The minutes of the last public meeting held on 4 April 2023 were circulated by email and it was taken that they have been received and read by all present.

Proposed : Peter Mitchell

Seconded : Pat Gibbons

Matters Arising

There were no matters arising.

Lough Carra LIFE Project update by Kieran Flynn, Project Manager

Groundwater study

Tobin Engineers have been contracted by GSI for the Groundwater study work. They have been putting dye in the water as part of tracer testing. They have been collecting water samples throughout the area to see

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where the dye will come up. Two students are working with them. Padraig Kelly has been mapping all karst features.

Agri-environment Scheme

Thirty-three farmers have signed up to Tranche 1. All farms have been visited and the land walked so that draft plans can be put in place, to be signed off in the next week. The next stage is implementing some of the supporting actions that will oversee the payments. All measures are about reducing nutrient run off e.g. installation of ponds, obstructions through drains, riparian margins, grassland measures etc. The agri-environment officer will give a presentation on the scheme at a future meeting

A map was presented showing shaded areas where the agri-schemes are being operated. The decision on selection of farms was made by looking at surface water flow and soil vulnerability. Guidance was sought from other project partners. There was extensive consideration given when identifying locations where the project could effectively carry out a monitoring scheme through water chemistry watering points. There will also be catchment wide chemistry monitoring to build up a data set and add to the work that the EPA has been doing in the area.

Surface And Ground Water Monitoring

Further monitoring is being carried out by the Surface Water scientist who is doing 'kick sampling' for invertebrates to help give longer term picture (kick sampling is a technique used to sample benthic invertebrates in a stream, etc., where a net is held underwater and the surrounding substrate disturbed by kicking). The sample is scored depending on invertebrates found. Just finished the pre-summer samples and will do again towards end of the summer.

Questions & Answers

Q: Has anything interesting shown up in the kick sampling?

A: One area seems to be of more concern than others but will wait until have good data set until talk more about that.

Q: Are there many sites suitable for kick sampling?

A: Suitable sites are limited. Surface Water Officer will give a presentation at future meeting.

Specialist monitoring

Cilian Roden and Paul Murphy are doing snorkel surveys of submerged vegetation. WoodrowSS have been contracted to do marl crust monitoring and LCCA will assist with this. LCCA will collaborate again in August to monitor emergent vegetation.

Biodiversity and site restoration

Coillte are active in a few areas. They are drawing up a bio plan for the land at Cloonee where they will be introducing some measures regarding undercutting, felling etc. to improve biodiversity. They will move on to another site later in the year. Also doing continual forestry work in the area. Not clear felling but thinning. They may come and speak about that work. On islands they are looking at the tree cover to look at diversity of tree cover on islands which is diverse.

Comment: Cilian Roden referred to work he has been connected with on islands in Corrib and Mask. There is a strong feeling that there are good reasons to leave the islands untouched since they are small areas that are a living example of a natural situation with a diversity of trees. It would be prudent to tread carefully regarding the islands

Kieran confirmed that the current opinion of the Coillte team is to leave the islands untouched so long as there are no invasive species.

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OPW

LIFE office met OPW on Annie's river and it was agreed that no work will be undertaken in the summer and will reassess later in the year to consider sensitive management.

Peter Mitchell of LawPro had a positive meeting with OPW to discuss drains. They flew a drone along drainage channel that was earmarked for work to carry out an assessment. The outcome was that the work didn't go ahead. Their approach now has more environmental considerations.

Wetland construction

The plans regarding wetland construction are two-fold a) domestic septic tank and b) farm area. Identified septic tank project but there are restrictions regarding anything to do with septic tanks at moment. There are planning regulations and engineering assessments which have slowed down project plans. A contractor was asked to look at the project but was too expensive to do all assessments and applications so rethinking at the moment.

Q: 75% of septic tanks inspected in Mayo failed, which is a huge failure rate.

A: This is part of the reason why the LIFE Project is treading carefully. Small team in Mayo CoCo that inspect and it has carried out inspections in this area. Can't inspect every tank in an area and only do those that are registered. Don't expect much development with this project in next couple of months.

Lesser Horseshoe Bat habitat enhancement

A contractor is surveying and will use their data for enhancing habitat. The plan is to have four mobile night roosts for the bats. Two have already been installed. There are plans to improve the existing nursery roosts and the hibernation roost. Summer ones are in good condition and so all budget into winter hibernation roost. This will involve digging a bunker in the right place. The team have been to see examples in South Galway and Clare but need to ensure they are put in right place.

Q: Where is right place?

A: Areas Towerhill and Moorehall where hibernation in poor condition. Not on private land but publicly owned land.

Invasive species control

This is ongoing throughout the year. Mink control.

Invasive species monitoring with P. Farrell is ongoing throughout the year. He has carried out a pilot technique preventing the Greylag Goose eggs from hatching by covering with oil. This was successful so seems to have found way of stopping the numbers from increasing. Long-term project.

Public Outreach

- The official project launch was held in May and was very successful. It was well attended with lots of support from Cllrs, TDs, Ministers. The official launch was followed by an Open public event with information stalls.
- Social media and website are ongoing.
- A film maker has just been contracted. The film will be accessible for broad audience. It will be two to three months in production.
- A stakeholder group is being set up for individuals in the area interested in supporting the project and having more input. Not a big group 10-12 meet quarterly. If interested contact Kieran.
- ATU Mayo student is currently on work placement with LIFE.
- New brochure about the LIFE Project has just arrived and copies available this evening.

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Presentation by Alan Stephens, EPA Castlebar on the project “Investigating Short-term weather events on Nutrient and Sediment Mobilisation in the Lough Carra Catchment”

Alan Stephens gave the presentation on behalf of the project team: ATU Galway, LawPro, EPA Castlebar, Water Technologies Cork. The project runs from 2022 to 2025.

The research projects aim is to “Target short term weather events between March and August 2022 (e.g. status yellow rainfall events) with the view of capturing and quantifying surface water nutrient and sediment mobilisation events in the Lough Carra catchment”. And its objectives are “1. Conduct continuous, in-situ hydrometric flow measurements. 2. Evaluate water nutrient and sediment chemical parameters from two feeder streams to Lough Carra during weather events.

The project set up sampling points in two locations. Selection of the sites was critical with a requirement for even substrate in the river and fairly regular dimensions.

1) Cloondaver stream at Mullingar bridge where laser flow technology is measuring the velocity, flow rate and depth of water. There has been long-term monitoring at this location since 2007 so there are lots of data
2) Annie’s river at Clooneen bridge. There is not much historical data from this location so the monitoring being carried out by the Lough Carra LIFE Project will be valuable. The Annie’s river does not fluctuate as much as the Cloondaver.

Alan presented data from the two selection sites with information on continuous, in-situ flow and velocity. He also showed the results for phosphorous readings of Ortho-P (orthophosphate which is phosphate loose in the water) and Total P (is ortho-P and phosphate attached to other molecules or substances in the water). There was also a chart providing Mean Water Chemistry Data for both sites. The water chemistry analysis is being conducted by the EPA in Castlebar.

The concluding comments for the research to date are:

- This opportunistic sampling has provided a great first step towards exploring the water chemistry dynamics of the Lough Carra Catchment
- Data have presented more questions than answers
- Need for further, continuous, long-term monitoring within the catchment of TP, TON (total oxidised nitrogen), ammonia, SS (suspended solids) and turbidity of the water.

The next steps for the projects are to:

- In 2023, target the yellow, orange and red rainfall events where practical on the Cloondaver stream
- In 2023, continue to monitor nutrient and sediment parameters more consistently
- Target national funding streams with the aim of securing PhD funding “To investigate the dynamic and interconnected relationships between water chemistry and flow within the Lough Carra catchment”.

Since March 2023 new equipment has been available with a temperature probe and in-situ flow measurement.

Alan concluded by acknowledging his colleagues on the project as well as the local community, landowners and farmers.

Question and Answer Session

Q: Impression from data is that fluctuations in phosphate are not related to the flow. So, what might it be connected to?

A: For all results except one, the concentrations are low. There are more exceedances in Cloondaver with floods and adjacent land. There seems to be a correlation with flow – get first flush after rain. TP was

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higher than any readings and TP went over when Ortho-P didn't. The high frequency flow meters are trying to catch risky periods.

Q: When going out on the lake at Moorehall when the weather is heating up, see balls semi-suspended and water clarity poor. There is an obvious problem with pollution.

Q: There is a spring at Moorehall and high level of nutrients. Even without sampling can see with the naked eye. It is fully accepted that there is a big problem in the lake but the challenge is finding when and where the nutrients are coming in. We need to prove nutrients and sediments are being washed into the lake. There are groundwater and surface water pathways to take into consideration.

Chris Huxley: The second speaker for the evening, Dr Philip Doddy, was unable to make it due to bad weather. However, he was going to talk about monitoring the marl crust. From his research so far, the two worst places on lake are where Annie's and Cloondaver meet the lake. There are clearly huge amounts of nutrients coming down those rivers. Alan is correct in saying that we need to prove when and where. However, there isn't necessarily a big link between weather events and flow of nutrients so if not where is it coming from. TCD research had similar findings.

Cilian Roden: I have worked with Philip Doddy on the marl crust. Lough Carra was an extraordinarily nutrient poor lake so when we say that the lake isn't too bad what is the base line. Philip worked on the crust and he has shown that it is extra-ordinarily sensitive. If total Phosphorus goes much above .01mg which is what is acceptable in many lakes, it is not acceptable for Carra. Total P is a better measure with too much for the crust as shown by Philip. Extremely complex. Lough Carra is still good in places and other places Cloondaver and Annies so bad that they are catastrophic and the danger is it will spread and grow.

Q: Today there has been heavy rain but slurry was being spread along the river Robe. Is that being monitored regarding adjacent rivers.

A: It is managed by the local authority.

Peter Mitchell: Spikes in total P happen in winter months. When go into rivers in summer there are mats of algae indicating that P might be in the vegetation and so explain why happens in the winter. If can quantify events with high levels of nutrient input can do physical modelling work to see how pollution is dispersed throughout the lake.

Tom Byrne: The entire political landscape has changed in recent years and there is more interest and awareness regarding quality of environment and drinking water.

LCCA Agricultural sub-committee news by J. Flannelly

Application for LawPro funding for solar pumps to restrict cattle going into streams was not successful this year. The LCCA want to keep cattle out of the water for human health. However, there will possibly be funding for farmers to do this through the Lough Carra LIFE and the Acres scheme.

There is now a grant for slurry bags. This enables storage of slurry so that it can be taken elsewhere but not sure where! Mary Roach, Teagasc Adviser, confirmed that the Dept of Agriculture looks at people who have a high stocking rate and won't support extra storage. You are obliged to have the storage. Won't grant aid – for building extra storage when already supposed to have it. She was not aware of the slurry bag grant.

There was a brief discussion about biodigesters to remove slurry from the land. However, have to be able to mix some other product with the slurry e.g. food waste or some other product.

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Acres applicants have received a Farmland Plan Identification Key from the Department of Agriculture. This key gives information on grassland indicator species and assists farmer in knowing what plants he has relevant for scoring the land.

Treasurer's Report

Credit Union balance is €9,093.89

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

Accounts are now with the accountant for the year ending April 2023.

LCCA Update

Chris Huxley gave an update on the LCCA input into Lough Carra LIFE Project

LCCA has an agreement with NPWS over some land that NPWS are expecting to own in near future at Moorehall.

LCCA is carryout baseline vegetation survey grazing management plan for another piece of land near Moorehall that NPWS have grazed with the Irish Moile cattle last winter. Student placement from ATU, Joanne McGovern, is carrying out a vegetation survey for the association for the next few weeks. A rare plant was found on that land which is the Large-flowered Butterwort. This is now the most northerly location of this plant in Europe.

Any Other Business

There was no other business

The Chair thanked all speakers and everyone for attending.

NEXT MEETING

The next meeting will be held on Tuesday 15th August 2023 at 8pm in Carnacon Community Centre.

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