

Dodder Strategic Environmental Assessment

Workshop 24th January 2008

The Dodder Strategic Environmental Workshop was opened by Mr. Tom Leahy, Deputy City Engineer, Dublin City Council (DCC) and Study Manager, at 10am. He thanked the thirty stakeholders for their attendance with a special thanks to the OPW for funding the Dodder Catchment Flood Risk Assessment and Management Study.

Six presentations followed:-

- a. Introduction to Catchment Flood Risk Assessment and Management Studies (CFRAMS)- the need for a new approach to flood risk management.
Mr. John Martin, Office of Public Works.
- b. Introduction to the Dodder CFRAMS- its objectives and key stages.
Mr. Gerard O'Connell, Deputy Project Manager, DCC.
- c. Introduction to Strategic Environmental Assessment (SEA) and its role in the Dodder CFRAMS.
Dr. Marian Coll, RPS.
- d. Outline the purpose of the workshop,
Ms. Claire Coleman, RPS.
- e. Modelling work to date on the Dodder CFRAMS.
Dr. Bjorn Elsaesser, RPS.
- f. Dublin City Council Dodder Habitat Study results.
Dr. Mary Tubridy.

Copies of all of the above presentations are included on the attached CD.

At 12.15pm the attendance was split up into seven different task groups under the following headings.

1. Biodiversity, Flora and Fauna
2. Water Quality and quantity
3. Land-use, Landscape and Visual Amenity
4. Cultural Heritage
5. Material Assets and Infrastructure
6. Human Impacts
7. Fisheries

Each group elected a group leader and discussed a number of given topics as well as any others they thought relevant.

Lunch was from 1.15pm – 2.10pm.

Finalisation of Group Recommendations. (2.10pm – 2.45pm).

The task groups will meet to continue and finalise their recommendations.

Presentations (2.45pm – 3.45pm).

Each Chairperson presented the findings of each task group and comments/questions came from the floor. (See attached reports.)

Environmental Appraisals. 3.45pm – 4.10pm.

There was an open discussion on the ranking of influence of each strategic issue on the Environment as a whole. There was a consensus that severe Human Impacts were the most important environmental factor. The next most important factor was loss of critical material assets or infrastructure, which had a significant human impact.

Water quality is also important. All of the other task group areas were deemed to be equally important.

Further Comments: The minutes and presentations will be sent to all of the attendees and some of the invitees who requested them for final comments. A two-week period will be given for final comments to doddersea@rpsgroup.com or alan.o'regan@dublincity.ie. Hard copy comments to Ms. Claire Coleman, RPS, West Pier Business Park, Dun Laoghaire, Co.Dublin or Mr. Alan O'Regan, Dodder Study, Dublin City Council, 4th Floor, 68-70, Marrowbone Lane, Dublin 8.

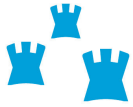
The Workshop concluded at 4.15pm

=

Conclusions/Observations:

- (1) All of the groups were in favour of maintaining a 30m wide green area, 15m either side of the river or tributary if possible. This would help with flood plains, habitats, wildlife routes, visual amenity, river access, etc.
- (2) All groups were in favour of opening up culverts as much as possible and keeping the existing river and tributaries deculverted.
- (3) “Soft” engineering solutions – i.e. flood banks, flood routing- are preferred to “hard” ones –i.e. retaining walls.
- (4) All groups were in favour of reducing pollution loadings and sources as much as possible and investigating old dump sites including possibly old mills and millraces as possible pollution sources. The river water quality should be increased to good status (Q4) everywhere. It is currently shown as Q3 in some locations.
- (5) Most of the attendees were in favour of wetlands however there were some reservations with regard to Health and Safety, desludging and prevention of groundwater contamination and increasing the phosphorous level in the water body.

- (6) Trees beside the river were seen by the habitats groups as important for birds and bats, but they were seen by the water engineers as potential causes of flooding as when they fall over they can cause blockages at bridges and weirs or flood routes through dam embankments. Trees well back from the rivers edge were favoured by all. Shrubs and plants beside the river were promoted by all groups. To allow watercourses to receive as much light as possible, trees near the watercourse need to be maintained.
- (7) Maintenance and repair of old weirs, millraces and cultural heritage was advocated by all groups. Removal of weirs to achieve a uniform gradient was discouraged by the fisheries due to loss of pools and wetted bed area of the river.
- (8) More walkways and advertising of them was accepted by all.
- (9) The compensation flow from Bohernabreena reservoir was applauded and the continuation of its practice encouraged.
- (10) Protection of Architectural Heritage in the flood plains should be looked at.
- (11) Flooding in the Tallaght Stream park areas was largely planned for.
- (12) Sediment transport will be analysed in the Dodder CFRAM Study.
- (13) A general lack of habitat data was highlighted.
- (14) All groups were in favour of increasing forestry in the upper catchment. Native species of trees were advocated.
- (15) Protected/threatened species to be conserved/encouraged.
- (16) Basements/underground car parks at risk to be identified.
- (17) Desilting of lower reservoir to be considered.
- (18) Flood damage upstream of Bohernabreena Reservoir to be included in final report.
- (19) Flooding of N81, Bushy Park and other areas not shown on flood maps.
- (20) Possible confrontation between human recreation and wildlife habitats.
- (21) Fish passes on all weirs and in and out of any wetlands.



Dublin City Council
Comhairle Cathrach Bhaile Átha Cliath

**Report of task group findings as presented
at the River Dodder CFRAMS SEA
Stakeholders Workshop
24/01/08**

RPS

Group 1 – Biodiversity, flora and fauna

Chairman Padraic Fogarty presented the findings of the group

- Open water courses should be maintained and all opportunities to re-open currently culverted streams should be exploited.
- The report should highlight the lack of ecological data in the catchment. Studies commissioned as a result of this would help protect areas of ecological sensitivity and importance.
- Sufficient flows and depths should be maintained and restored. As highlighted by group 2, it is difficult to know what is the best level to maintain. Indeed, such control will only come about as part of an enhanced management system to be implemented in the catchment. A representative of the Dodder anglers disagreed with the opinion that a constant minimum depth be maintained, as partial drying up is a natural part of a river's life cycle.
- The potential impacts of forestry in the upland regions of the catchment should be recognised.
- Ensure that all protected/threatened species and habitats are conserved and to maintain /enhance ecological status.
- As well as SAC's in the upper catchment, all Dodder habitat areas should be conserved or enhanced.

Group 2 – Water Quality and Quantity

Chairman John Martin presented the group's findings

The group identified the following pollution sources.

- CSO (combined sewer overflows).
- Urban discharges. All litter and pollutants found commonly on urban streets such as oil and salt that are washed into the drainage system and, through CSO's and storm water outfalls, into watercourses.
- Landfills.
- Estuaries. These tidal reaches wash general rubbish of all kinds into rivers. This rubbish is frequently left in the lower reaches of the river as the tide retreats.

The group outlined their understanding of existing water quality in the Dodder catchment.

- The EPA define the river water quality as Q-3 in the urban reaches. Q-4 is good status, which is required.
- At the moment the river does not qualify for good ecological status under the water framework directive.

The group identified ways of protecting water quality in the catchment.

- The licensing of discharges was discussed.
- The problems associated with sediment and silt accumulation was outlined.

The group discussed the issue of low water flows.

- The existing compensation flow as supplied from the lower reservoir at Bohernabreena, and its value to the ecology of the river was outlined.
- It was recommended that an unspecified minimal flow be maintained in the river. The level will be determined by the ERBDMP (Eastern River Basin District Management Plan).

The management of the river was discussed.

- It was suggested that the river could be more regulated and that the regulation would have ecology in mind.
- The question of sludge deposits from Ballyboden Water Treatment Plant was raised. It was pointed out that all sludge is treated firstly at the Ballyboden treatment works (located off Stocking Lane) and eventually finally treated at Ringsend wastewater treatment works.

The group discussed the effect of SuDS.

The group identified gaps in the data so far collected.

- CSO loads.
- Good ecological status standards.
- Low flow requirements to maximise ecological availability.
- Hydrological/ meteorological data.
- Rural diffuse. Pressures on river.

Group 3 – Landscape and visual amenity

Chairman Gerry Gallagher presented the group's findings

- In the land-use maps, domestic and commercial zones should be represented.
- Site coverage figures can be more useful than density figures in the city.
- 30m green belt (as recommended by the GDSDS) should be maintained on main channel and tributaries where possible. Wider strip should be maintained, where possible.
- Existing walkways should be better advertised using public awareness campaigns, leaflets, maps and signs.
- Restoration of existing structures was advocated but only if it can be achieved in a manner sympathetic to the surrounding area, with explanatory signs.
- Wetlands are an option for water quality improvement that are also a visual amenity. There are many advantages but some disadvantages to wetlands. Some consider them a health and safety risk.
- Geological features should not be covered up as part of efforts to hide the townscape. Streetscapes should be hidden where possible, but trees should be kept well back from river and tributaries.
- Soft engineering approach was advocated.
- The parks departments of all three Local Authorities have a major role to play.
- De-culverting of tributaries would increase their amenity value.
- An overall river-tributary maintenance plan is needed.

Group 4 – Cultural heritage

Chairman Michael Corcoran presented the group's findings

- Existing man-made structures of archaeological importance to be identified and turned into amenities. Structures such as mills, millraces and bridges should be restored. Such structures could form points of interest along newly created themed walkways of historical interest.
- The approach of soft engineering options – i.e. embankments- was advocated ahead of hard engineering – (i.e. retaining walls, piles) - where possible.
- A greater sensitivity to existing built heritage was advocated.
- Any new weirs should be incorporated in a manner sympathetic to the surrounding area.
- Some of the old mills and mill races may have contaminated soil due to different types of manufactured materials.

Group 5 - Material Assets & Infrastructure

Chairman Don McEntee presented the group's findings

- Cultural Heritage – Old City Watercourse.
- Human Health –
 - Water Treatment Plant is required to protect the health of the public users.
 - 50,000+ people at risk from flooding.
- Areas at risk.
 - Flooding at Friarstown during Hurricane Charlie.
 - Tallaght – Flood alleviation built into the development areas around stream should not be compromised as part of any option.
 - Dundrum Slang – flooding at M50 in June 2007 – investigate possible risk to M50.
- Trees.
 - Flood embankments will not include large trees as they are a risk to the embankment itself.
 - Bridges also become blocked by large trees washed downstream in storms.
- Provision of access to river for maintenance.
- Have bridges been inspected for scour?
- Trees growing in river at 24” watermain at crossing of Whitechurch Stream and Grange Golf course. Also 24” main was collection point for debris.
- Critical Infrastructure should be identified and proposal given for protection – Angelsea Road Bridge & Beaver Row Footbridge identified as being critical infrastructures.
- Identify underground car parks at risk.
- River Bed & Bank.
 - Rock transfer – natural debris in riverbed – rocks, boulders. Establish policy for their management.
 - The OPW prefer rock armour to gabions due to ease of maintenance and benefit to habitat.
 - Consider creation of riffles and pools as part of flood management options.
 - Preference for river access for anglers/scouts den.
- Identify buildings with special heritage features – weirs, bridges, mill races, etc.
- Catchment Management Plan to protect source of drinking water to upper reservoir.
- Output from study to be put up on GIS.

- Silting has massively reduced capacity of lower reservoir. Investigate de-silting feasibility.

The group also identified the following data gaps:

- Table D – Additions.
 - DCMNR is now Department of Communications, Energy and Natural Resources.
 - OPW website, floodmaps.ie and erbd.ie should be listed.
 - Archaeological study for Ballsbridge to estuary.
 - Dam break analysis for Bohernabreena.
 - Coastal floodmaps have been produced as part of the SAFER project and are available for use.
 - CDM have a draft website linking coastal and river flooding.
- Data Source – ERBD GIS – complex GIS & Environmental Management System which is useful.
- Report on flooding and damage upstream of Bohernabreena. Castlekelly Bridge 1905.
- Flooding of lower Dodder/Bushy Park not shown.

Group 6 - Human Impacts.

Chairman Tom Moyne presented the group's findings

- Tallaght bypass at Balrothery Roundabout - N81 Jobstown. Records of Flooding.
- Adverse economic effects, e.g.
 - Blockage of N81
 - Effect on property values – Inability to insure properties.
 - Loss of property and property value due to erosion, e.g. Kilvere, Rathfarnham. Erosion at other areas of Dodder to be highlighted.
- Impacts on access to rivers
 - Health & Safety issues, e.g. steep drops created by construction of retaining walls/steep floodbanks.
- Possible structural option not listed: diversion of waters from upper Dodder catchment
- Preserving riparian corridors/flood plains in terms of their amenity value.
- Mitigate human impacts by the introduction of SuDS, etc.
- Possible conflict between human recreation and wildlife identified.

The group also identified the following data gaps:

- Appendix D omissions
 - Table 4.3 GDSDS Final Report
 - It was reported that the population of the Dodder Valley Catchment is forecast to decline.
 - District Metering Areas; A good way to estimate catchment population. Combined Sewer Overflows to be brought in line with latest standards when funding available.
 - Planning Departments in LAs should be consulted for data completion.
 - Eastern Health Board should be consulted for data completion.
 - Location of healthcare facilities should be identified and shown on maps as critical infrastructure.
- Dodder Valley Sewer report, should give good indication of catchment population.
- Bohernabreena Reservoir (limits on development SDCC Report).

Group 7 – Fish

Chairman Paddy Conneff presented the group's findings

- Wild brown trout are present in all major tributaries as well as in the main Dodder channel.
- A detailed baseline dataset should be produced regarding fish populations. Any work done to the river would have to guarantee to maintain that baseline. The ERFB should be consulted as part of the production of such a dataset.
- A fish population rehabilitation programme should also be produced.
- Habitats must be maintained. Restoration and improvement should be carried out where opportunity is present. Banks should be natural, as should riverbed.
- Attenuation of floodwaters should be considered as loss of fish life can occur.
- The practice of culverting streams should be avoided.
- Natural pools should be retained.
- Average gradients should not become uniform gradients as a result of any flood alleviation proposals, as these do not leave any pool areas for fish.
- Combined overflows should be phased out. The policy of implementing catch tanks for chemical spills should be investigated. There should be greater enforcement of legislation against chemicals stored and current misconnections.
- Weirs should be repaired and maintained. Opportunities for fish passes at weirs should be investigated.
- Restore and improve wheelchair access to the river. High concrete retaining walls and steep banks should be avoided where possible.
- The group expressed some concerns regarding the implementation of wetlands including possible resulting contamination of groundwater. They could be a good refuge for fish in floods if there was easy access and egress.
- The low flow minimum as guaranteed from the lower Bohernabreena reservoir was applauded. The group expressed their gratitude for this practice.
- Boulders found in bed of river should be left there. Trees near the banks should regularly trimmed to allow maximum light. “Light is Life”.

- After floods large fish recover quickly while many smaller fish and eggs are lost.
- Dodder anglers (numbering 850) issue permits for brown trout only which is stocked in the river. Special permits are required for salmon and other species.

Task group 8 - Environment

The Environment Task Group consisted of all of the attendance. G. O'Connell chaired this portion of the workshop.

The attendance were first asked if there should have been any other task groups set up or whether all areas of the Dodder Strategic Environmental Assessment had been covered. Most of the attendance thought that all Environmental areas had been sufficiently covered. A few thought that a river maintenance group could have been included, however it was pointed out that this will be one of the outputs of the management plan and various aspects of the maintenance plan were covered in the reports of the seven Task Groups.

G.O'Connell next asked if any of the Task Group areas was more important than any other. All of the attendance agreed that the Human Impacts were the most important area as flooding or mismanagement of the catchment could lead to loss of human life or human physical/mental injury.

It was agreed that the next most important area was critical major infrastructure as loss of this could have a major human impacts eg. damage to a large gasmain could leave hundreds without heating in the winter.

After these two areas all of the other task areas;-

- 1. Biodiversity, flora and fauna,**
- 2. Water quality and quantity,**
- 3. Land-use, landscape and visual amenity,**
- 4. Cultural Heritage, and**
- 5. Fisheries** as well as
6. Lesser **Human Impacts** and
7. Lesser **Material Impacts and Infrastructure**

should be assessed in each Environmental Impact Assessment on an equal basis.