Neagh Bann River Basin Management Plan

Heavily Modified and Artificial Water Bodies - Neagh Bann River Basin District

December 2009

An Agency within the Department of the Environment
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NIEA Northern Ireland Environment Agency
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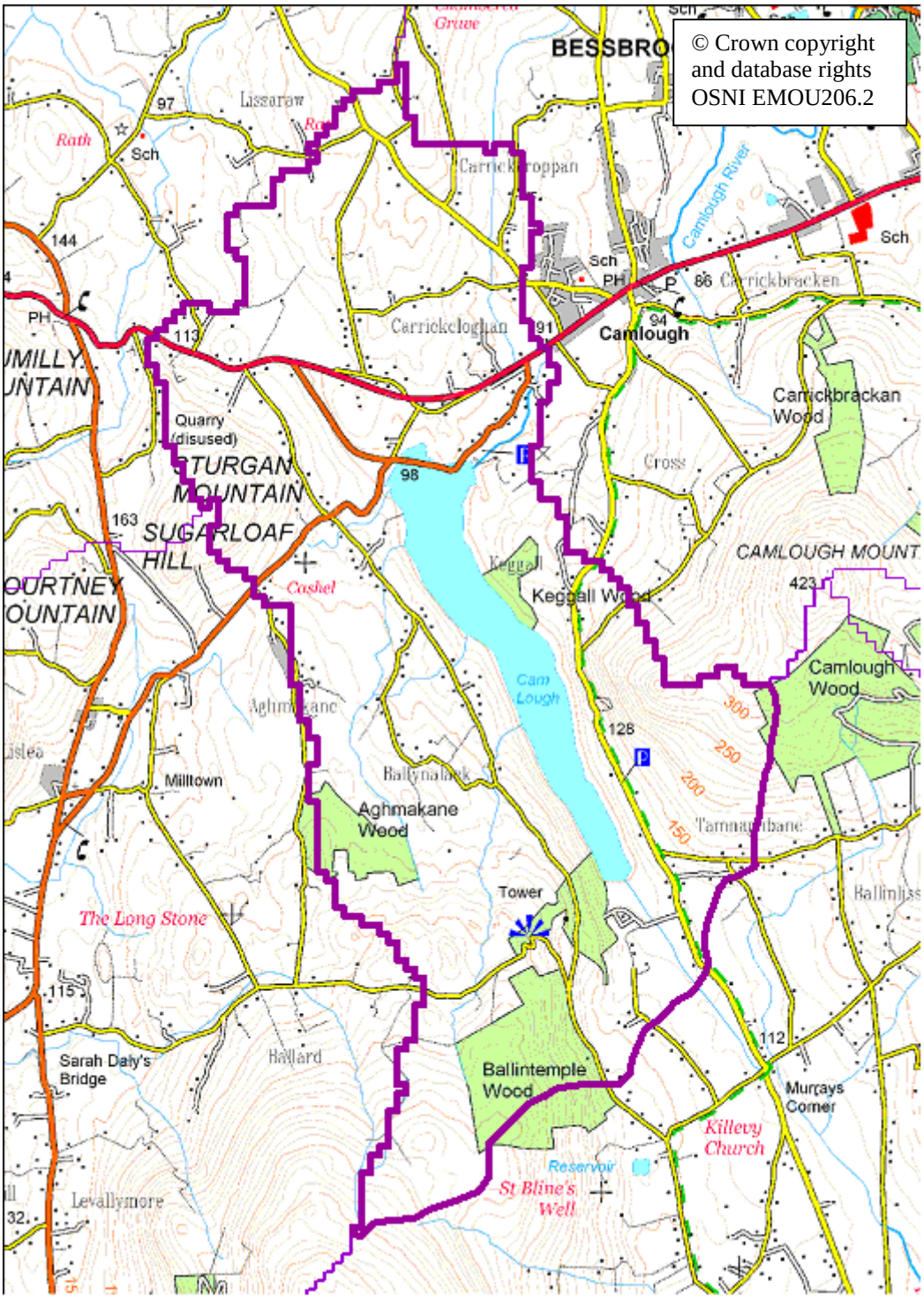
APPENDIX IV

GBNI3NB0024 and GBNI1NB030306083	**- STONEYFORD RESERVOIR AND STONEYFORD RIVER**
GBNI1NB030302022	**-QUOLIE**

GBNI3NB0021 and GBNI1NB060602017 - WE / DWS

Impoundment Name/Works	Cam Lough
Morphological Impact	Yes Impoundment Present
Height of Impoundment	3m
Compensation Flow Ml/D	Yes 3.19
Hydrology Impacted	Yes
Wider Environment	ASSI (wetland mesotrophic lake) AONB



Cam Lough and Bessbrook River

Camlough is designated as an ASSI because it is an example of a mesotophic lake and these are becoming rare in Nothern Ireland due to pollution. It is currently described as being in unfavourable condition status meaning there is poor supportive habitat. The lake was raised in the 19th Century by constructing an embankment along the northern shore of the lake and at the outlet. At the workshop it was discussed that there are no salmon or trout populations present.

The morphology of the river has been re-aligned but this is not due to the flow. There are no sediment management plans or freshets in place but there is some compensation flow. This will need to be taken forward and discussed with NIW under AILRegs.

GBNI3NB0021 WE / DWS

Workshop Classification of reservoir: MEP
Chemical status: Moderate
Biological status: Moderate

2009 Classification of reservoir: Moderate Ecological Potential.

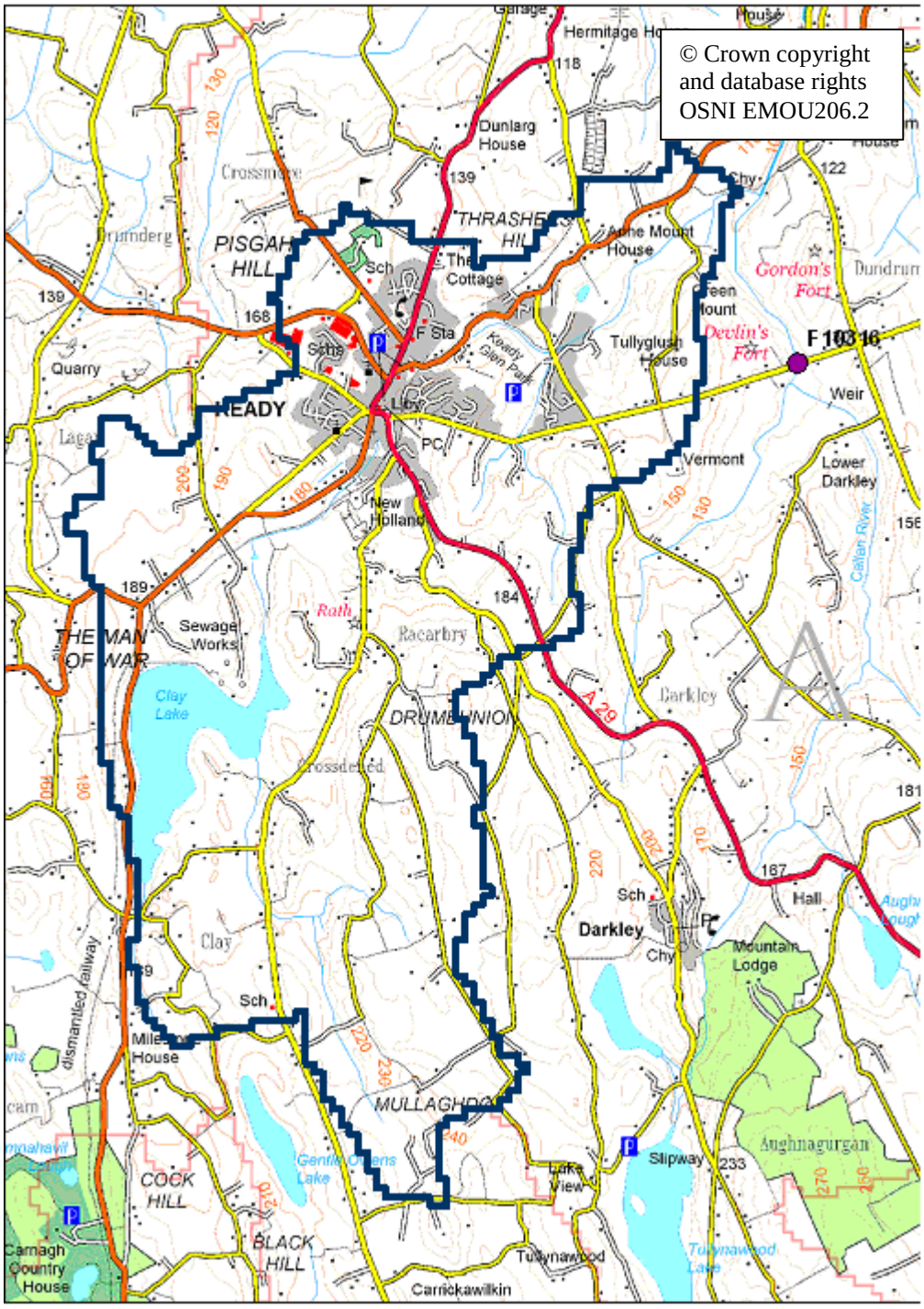
GBNI1NB060602017 - WE / DWS

Workshop Classification of river: MEP
Phys/Chem status: Good
SP: Good
Biological status: Poor (invertebrates)

2009 Classification of river: PEP

GBNI1NB030307049 – DWS

Impoundment Name/Works	Clay Lake, Callan River
Morphological Impact	Yes Impoundment Present
Height of Impoundment	1.8m
Compensation Flow Ml/D	Yes 1.1
Hydrology Impacted	No



Clay Lake, Callan River

At the workshop, it was commented that for the past 3 or 4 years there have been good numbers of salmon below the impoundment. However it is unlikely that they would migrate into the lake and therefore it was felt that there was no barrier to migration. The morphological impact on the downstream channel still needs assessed using RHAT. However, modifications to sediment plans including use of freshets are under review and needs further discussion with NIW. There is a small abstraction from the lake but it is not impacting on hydrology as there is some compensation flow.

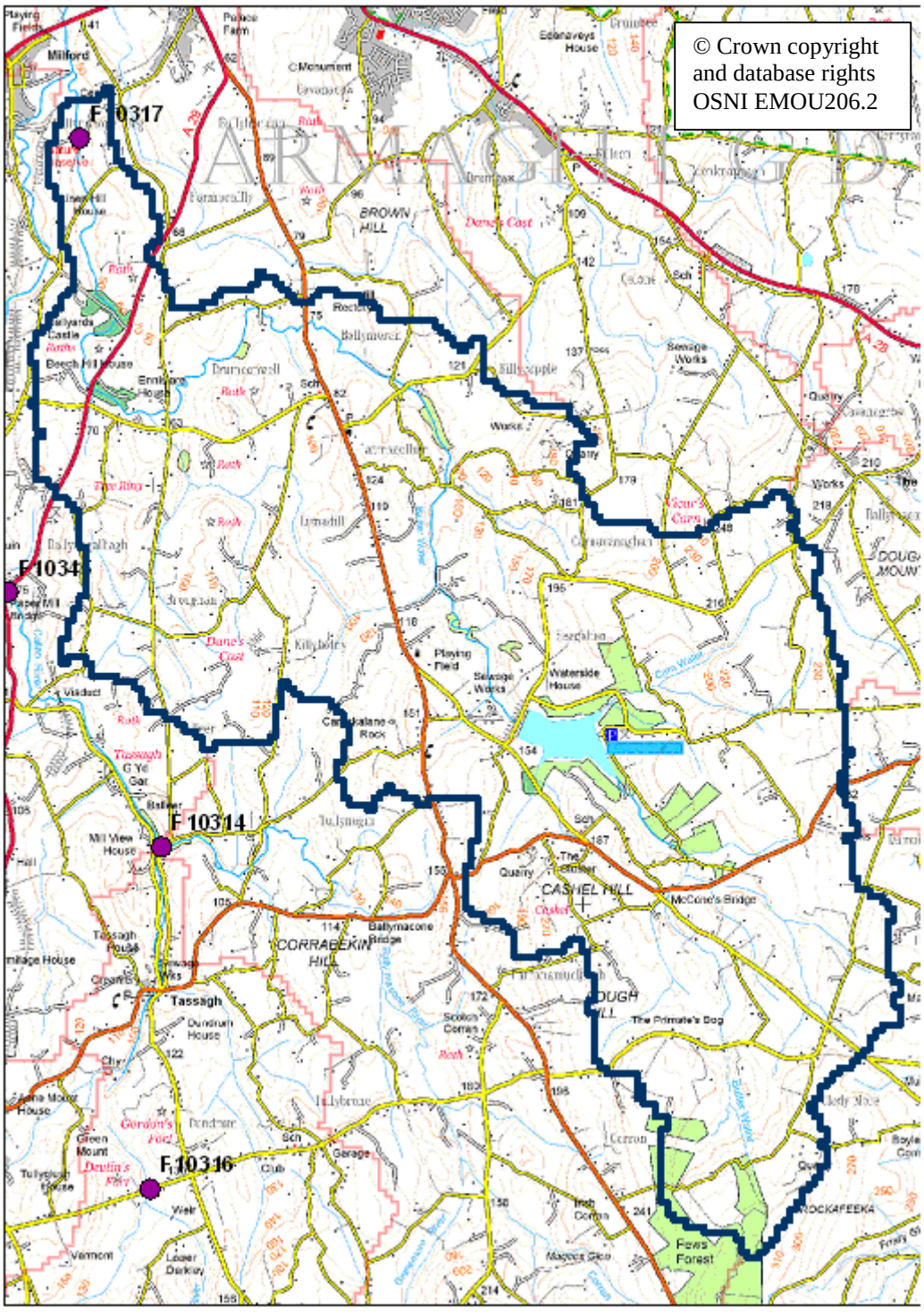
GBNI1NB030307049 – DWS

Workshop classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI1NB030307048 – DWS

Impoundment Name/Works	Seaghan Reservoir
Morphological Impact	Yes Impoundment Present
Height of Impoundment	20m
Compensation Flow Ml/D	Yes 1.14
Hydrology Impacted	Yes



Seaghan Reservoir

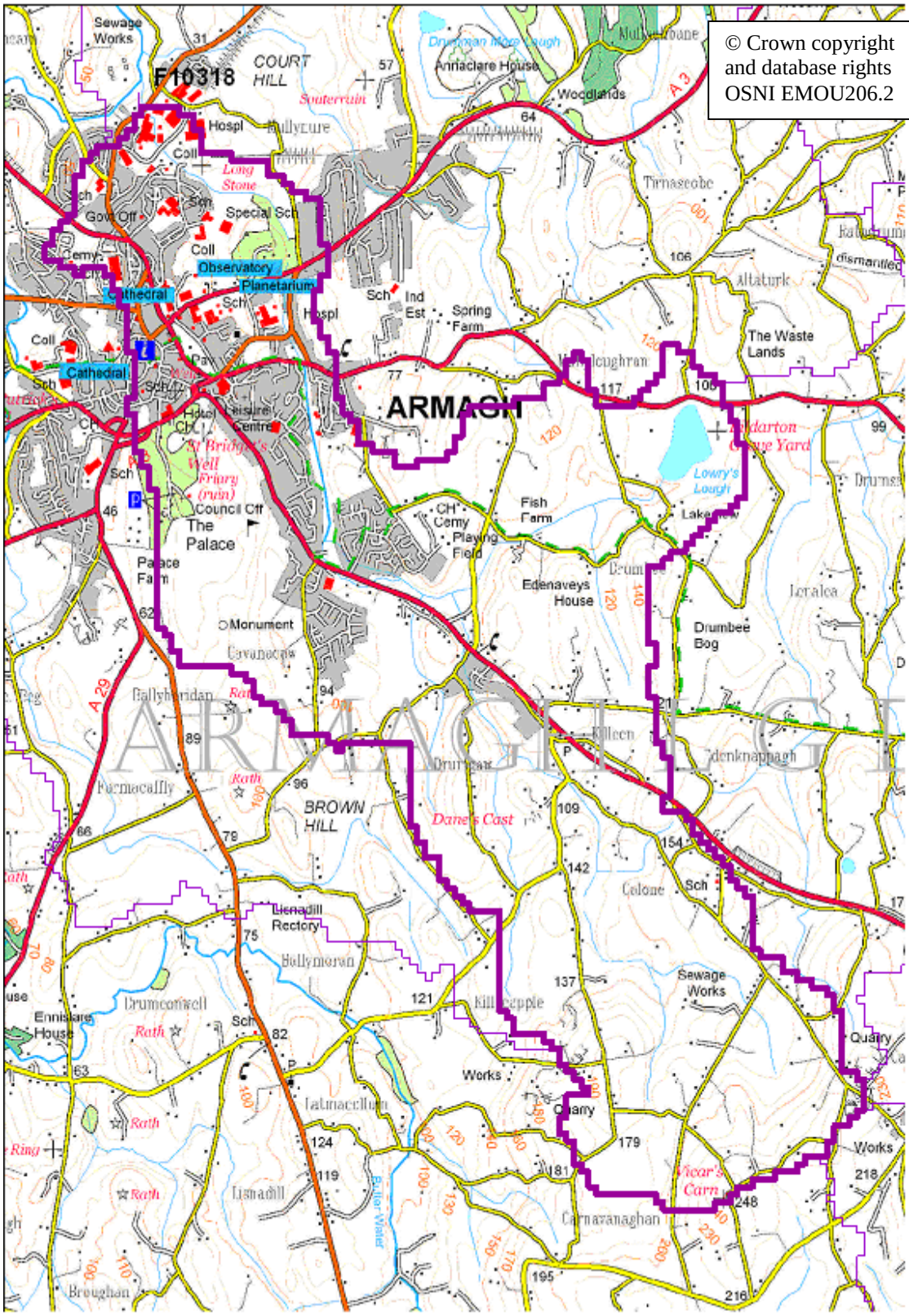
At the workshop, Loughs Agency says there is no known impact on fish migration. The hydrology of the downstream river is impacted. Although there is some compensation flow, it was not felt that the volume is adequate and this is a measure that could be implemented. The morphology of the downstream river is most likely impacted in terms of the sediment regime. Sediment management plans could be put in place and the freshets reviewed, as they are not adequate. Water chemistry of the downstream river needs assessed in terms of Dissolved Oxygen as the compensation flow from the reservoir may impact on the channel.

GBNI1NB030307048 – DWS

Workshop classification: MEP
Phys/Chem status: Moderate
SP: Good
Biological status: Moderate (invertebrates)

2009 Classification: MEP

GBNI1NB030307109 – FRM



Killeen Water (Armagh)

The Killeen Water flows through mixed agriculture and dairy land to Armagh town. It is confined in parts through a natural valley. There was localized flooding of the urban area recently when a drain became blocked.

From the workshop it is known there are some alterations to the channel including a sluice and small weirs. The channel is likely to have been re-aligned and the waterbody has around 24% of the channel culverted with no potential to re-open due to the urbanisation. The channel re-alignment has caused a loss in diversity that may be rectified by increasing in-channel habitats and retaining what is present.

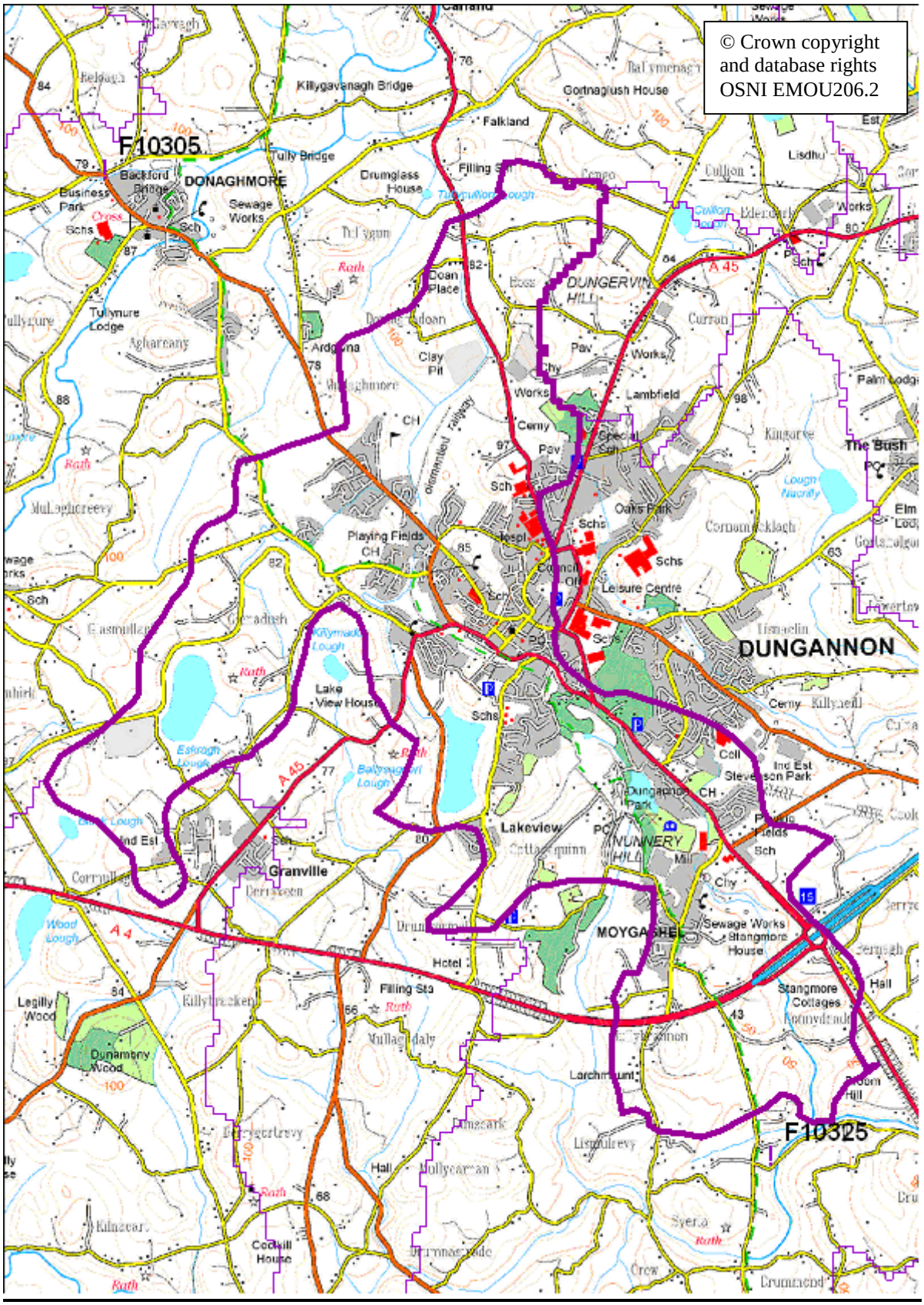
There are some questions remaining regarding vegetation control and to the alterations of flow and sediment by artificial means. Further information is required.

GBNI1NB030307109 – FRM

Workshop Classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Bad (invertebrates)

2009 Classification: BEP

GBNI1NB030307025 – FRM



River Rhone (Dungannon)

This water body is extensively urbanized through the town and the bus station wall runs along the river side. There are approximately 1.5km of culverts and the old mill race is still going through Moygashel Mill. There are inlets from surface drainage and an outfall from the sewage works at Moygashel. No invasive alien plants have been noted in-channel or on the banks. Other land uses include agriculture and a golf course.

From the workshop it was discussed that the presence of weirs and impoundments were impacting on the migration of eels. The impoundment most likely remains for aesthetic reasons. However, apart from sticklebacks the water quality is too poor to support other species. It is not known whether the mill race is still abstracting or if the channel is now acting like a canal habitat. Depending on its functionality the mill race could be blocked and the water re-diverted.

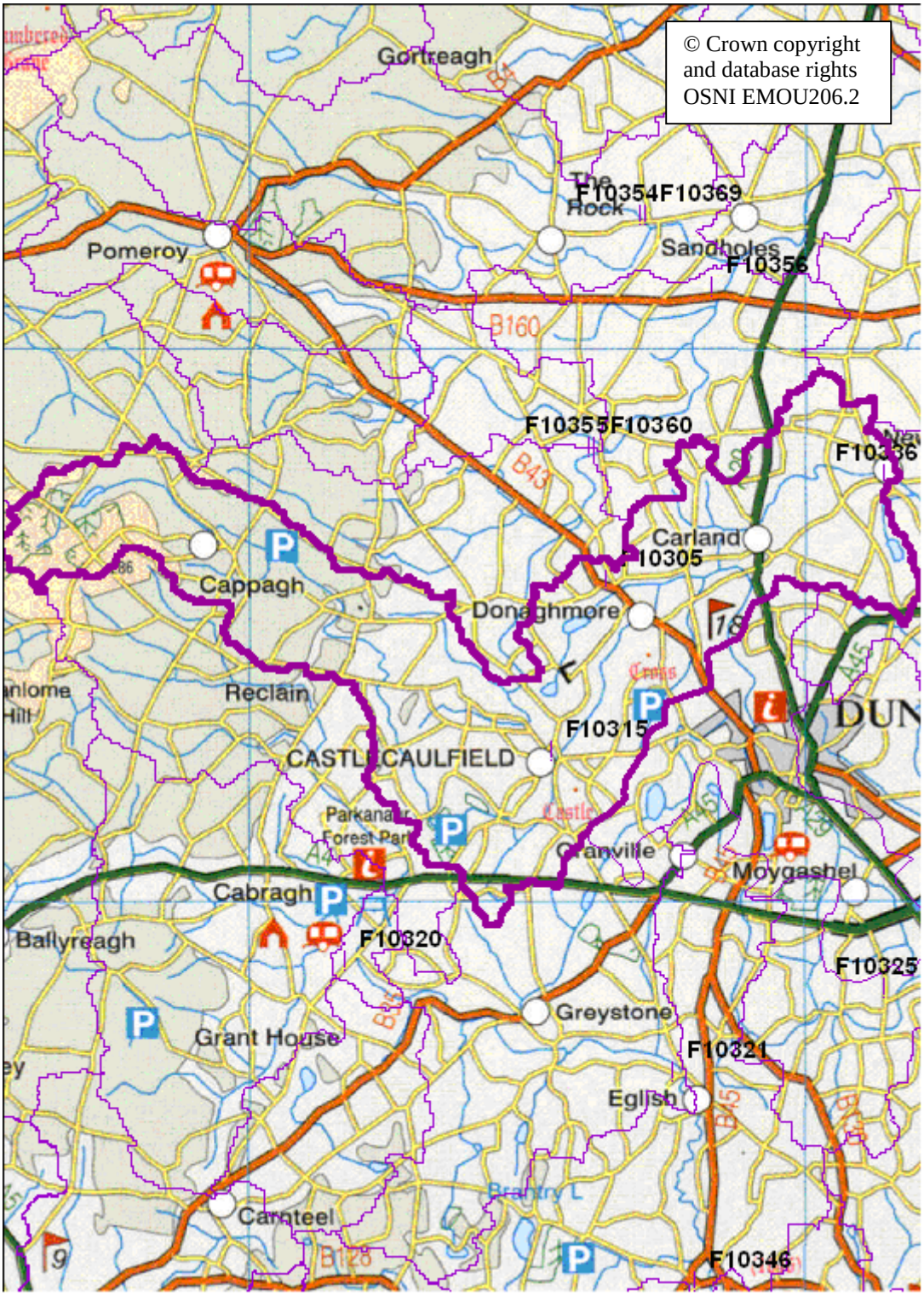
GBNI1NB030307025 – FRM

Workshop Classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Bad (invertebrates)

2009 Classification: BEP

GBNI1NB030307173 – DWS

Impoundment Name/Works	Altmore, Torrent River
Morphological Impact	Yes 2 Impoundments Present
Height of Impoundment	7m and 16m
Compensation Flow Ml/D	No
Hydrology Impacted	Yes



Altmore, Torrent River

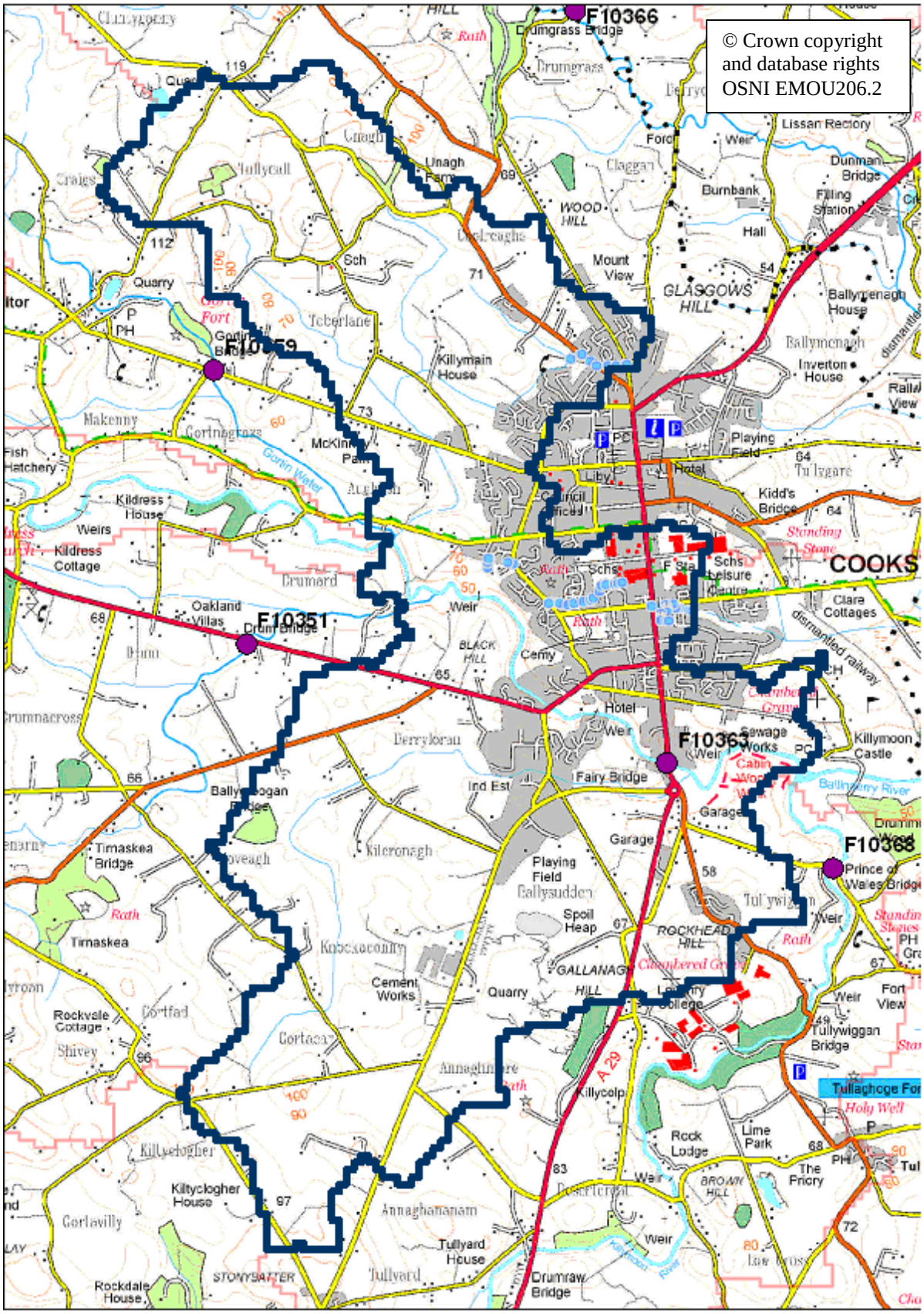
At the workshop it was recognized there are fish including trout downstream but the habitat in the reservoir is not favourable for salmon or trout. There may be issues regarding eels. The impoundments are having a hydrological and morphological impact on the river downstream. There is no compensation flow at present but the measure is practicable in theory; however this requires further discussion with NIW as do measures regarding sediment, which are dependent on compensation flow. It was suggested that a pipe from the lower reservoir that flows to the works could provide additional flow and may be practicable.

GBNI1NB030307173 – DWS

Workshop Classification: MEP
Phys/Chem status: Moderate
SP: Moderate
Biological status: Poor (fish and invertebrates)

2009 Classification: PEP

GBNI1NB030304060 – FRM / WE



Ballinderry River

This water body is dominated by pastures and urbanisation. It is most likely reinforced where the river meets the urban area to prevent flooding. From the map there appear to be 3 weirs, however their size and barrier to fish movement is not known. From the unverified pressure layers there appear to be 4 sluices and 5 impoundments. Where the Fairy Bridge is shown on the map, this stretch of the river appears artificially straightened. Feeder streams are likely to be culverted but not to a large extent. The cement works at Knockaconny abstracts and discharges and Cookstown sewage works discharges into the Ballinderry River. There may be a risk of migration of Giant Hogweed upstream of the waterbody. There is an ASSI at the bottom of water body.

At the workshop it was felt that the pressures present were not significant or had measures in place which are adequate but this needs reviewed with regards to the actions required. The significance and control of giant hogweed was discussed. Abstractions are not having an impact on water body as they do not a significant daily volume.

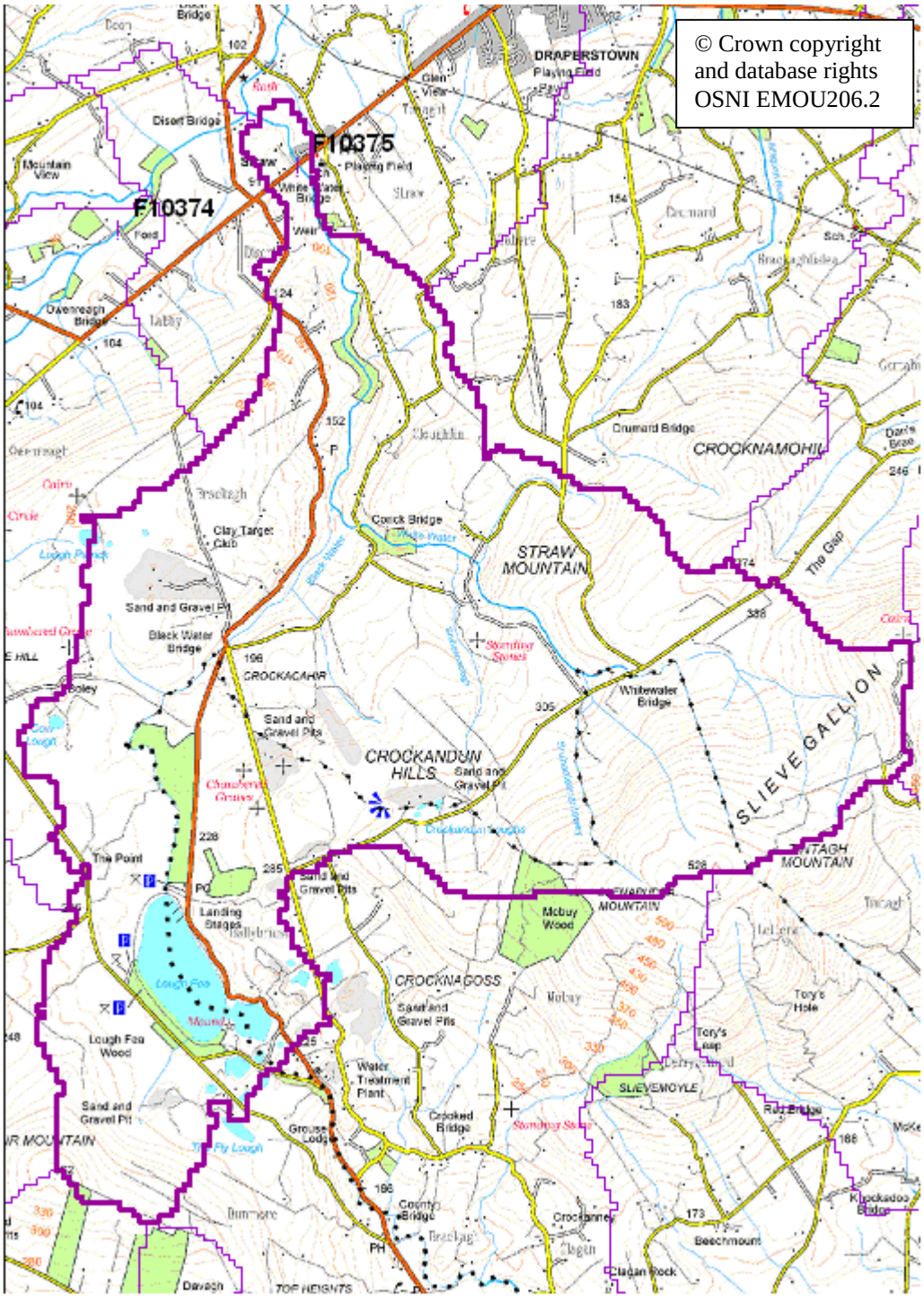
GBNI1NB030304060 – FRM / WE

Workshop Classification: GEP
Phys/Chem status: Good
SP: High
Biological status: Poor (macrophytes)

2009 Classification: PEP

GBNI3NB0027 and GBNI1NB030303005 -WE / DWS

Impoundment Name/Works	Lough Fea
Morphological Impact	Yes Impoundment Present
Height of Impoundment	5m
Compensation Flow Ml/D	No
Hydrology Impacted	Yes
Wider Environment	AONB Sperrin



Lough Fea and White Water

At the workshop it was discussed that the impoundment is having an impact on the migration of fish but that there are measures in place and these are adequate. Also, the marshy area downstream would prevent fish getting upstream, but the lough is stocked with fish. There is a hydrological impact on the downstream channel but because it is a low yield system it is unlikely that a baseline flow can be established as they would need to reduce the capacity of the works, but the channel could practicably be re-engineered. This would need discussed with NIW. Sediment is removed from the catchment (sand and gravel).

GBNI3NB0027 -WE / DWS

Workshop Classification of reservoir: GEP
Chemical Status: Good
Biological status: High

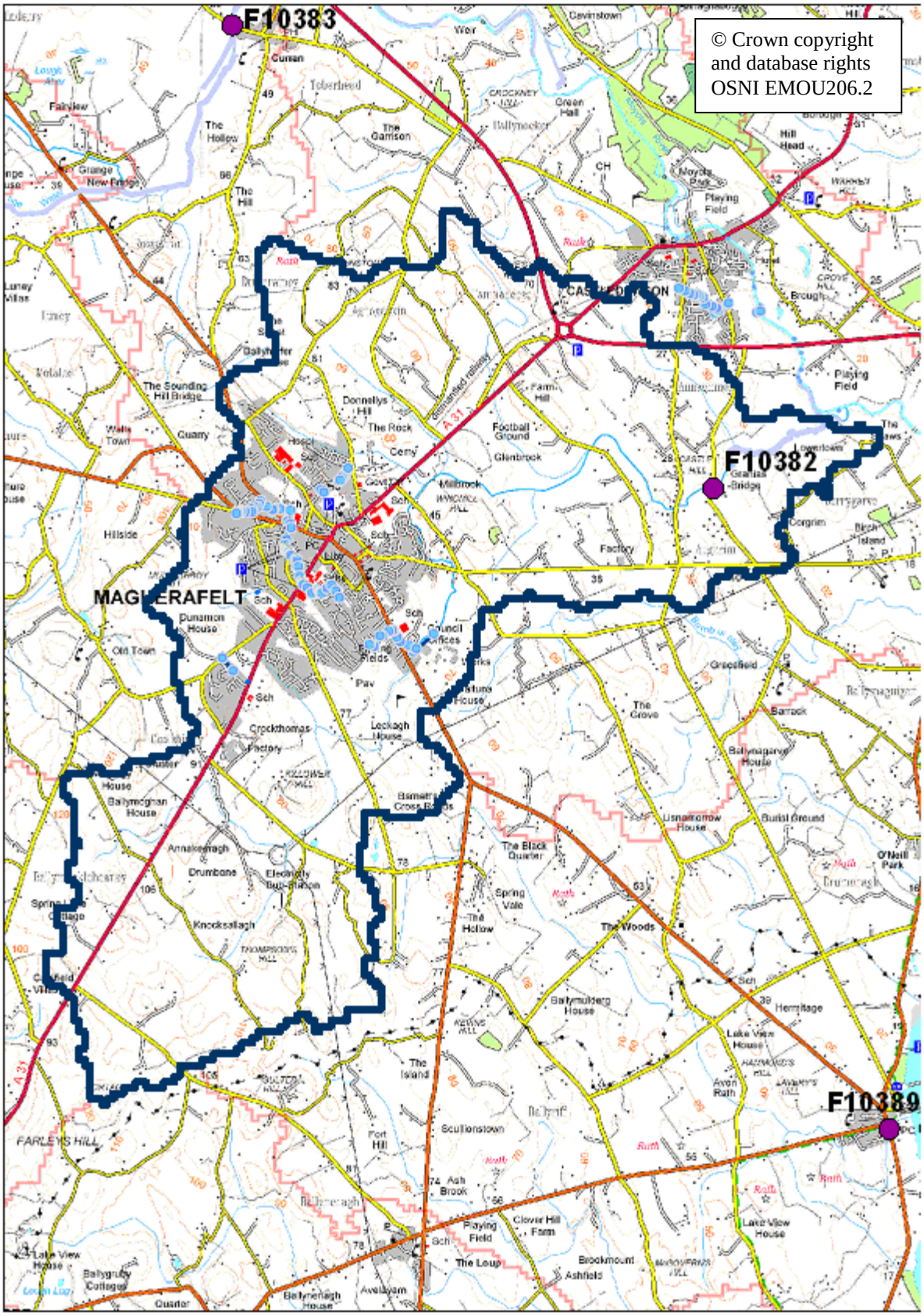
2009 Classification of reservoir: GEP

GBNI1NB030303005 -WE / DWS

Workshop Classification of river: MEP
Phys/Chem status: High
SP: High
Biological status: Moderate (macrophytes)

2009 Classification of river: MEP

GBNI1NB030303144 – FRM



Coppies Burn (Magherafelt)

The main land covers are the urban areas of Magherafelt and pastures. The Coppies Burn flows into the Moyola. The Coppies Burn is culverted in large parts under the town with associated artificial straightening and most likely impacts on the migration of fish. Within the Polepatrick Cemetery Park there are gabion baskets. There is a small amount of embankment in the waterbody by Lowertown. Other pressures may include outfalls at Acheson and Glover and the small Magherafelt sewage works.

At the workshop it was discussed that the channel had been lowered by a metre due to a mill race and this has caused a significant adverse ecological impact. However, best practice measures are in place to retain habitat but issues regarding water quality need resolved before development of in-channel features are approached. The inlets and outfalls to the channel also impact on hydromorphological alterations and drainage plans to align and attenuate the flow should be put in place. Note there is planned work to retro-fit some of the existing culverts.

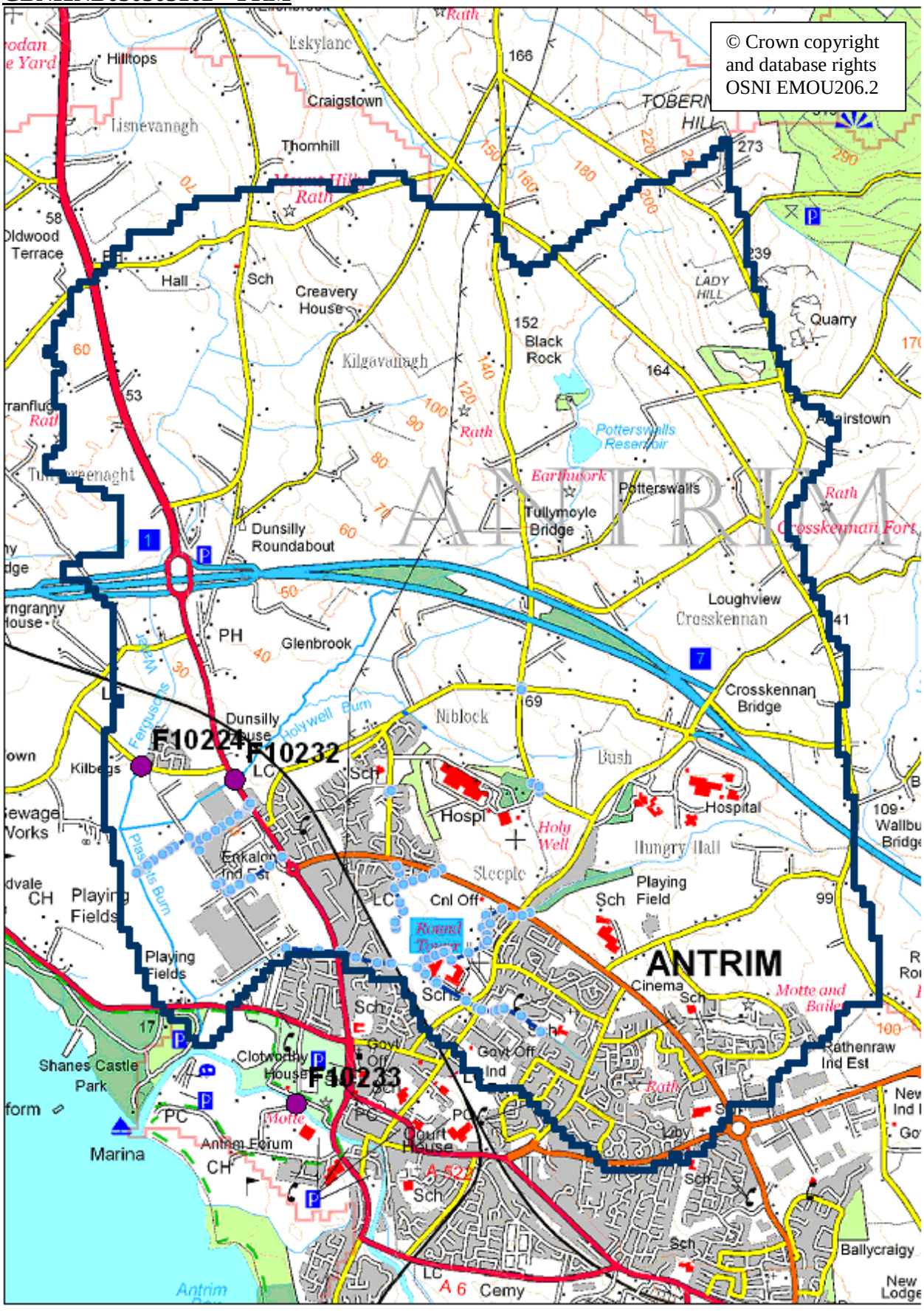
Acheson and Glover have put in a stepping channel for fish under advice from DCAL. This has opened up half of the catchment and work is being carried out to restock the river. DCAL advised us that the stepping channel should be suitable for the migration of all fish species.

GBNI1NB030303144 – FRM

Workshop Classification: MEP
Phys/Chem status: Good
SP: High
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI1NB030305162 – FRM



Plasketts Burn (Antrim)

The Plasketts Burn water body incorporates part of Antrim town and arable land. There is also a golf course and army base along this stretch. The river is very straight and has extensive culverts through the town. There is a weir noted with field and road drains present.

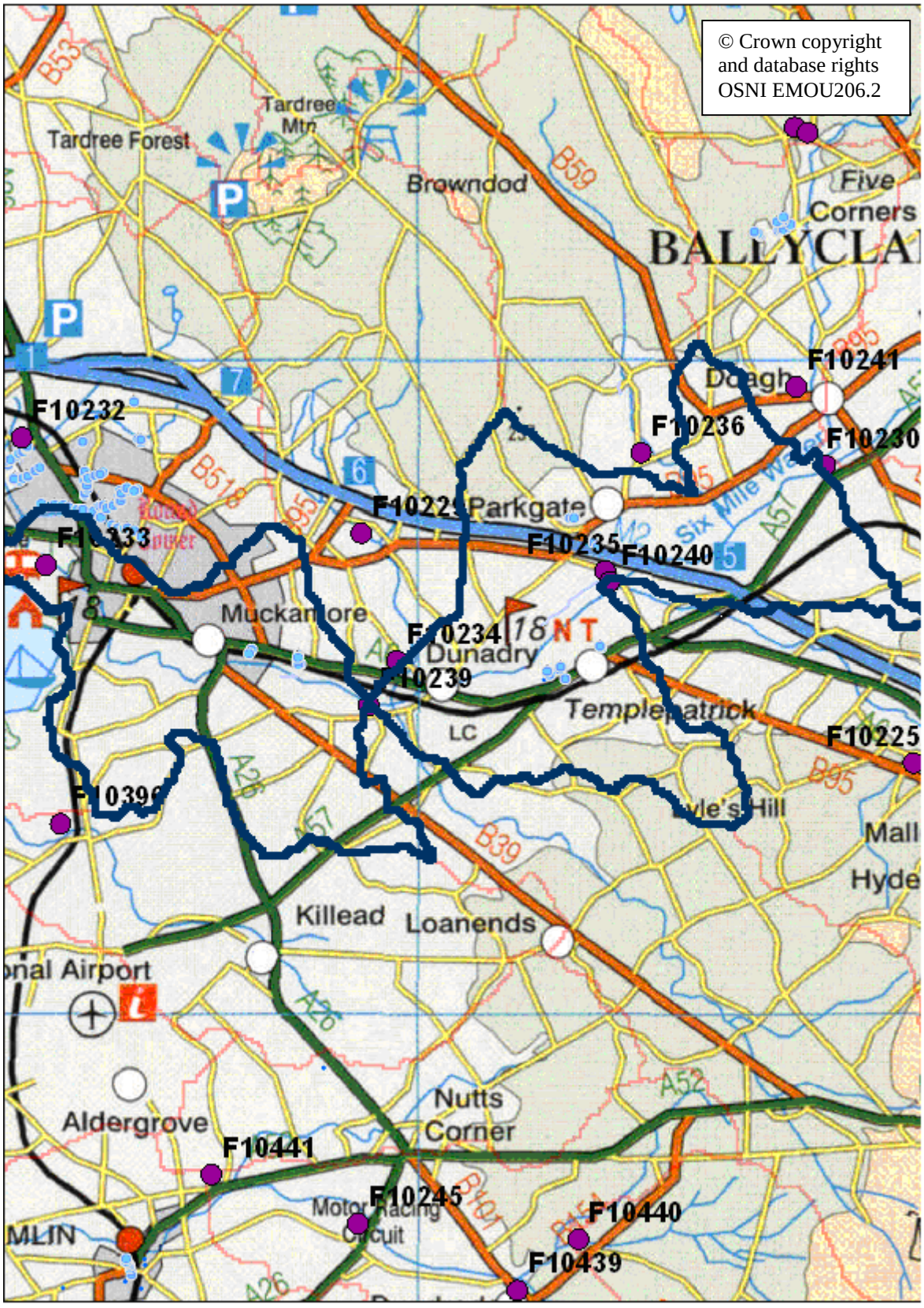
More information is required on the distribution of bank side alien species. The Water Quality Inspector (WQI) for the area revealed that there are weirs present and these do not pose a significant problem. Land management strategies are in place but it is felt that these were not adequate and future development plans should include best practice. This would require further liaison with the Planning Service.

GBNI1NB030305162 – FRM

Workshop Classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI1NB030305122 – FRM



Six Mile Water (Antrim)

The Six Mile Water downstream of Doagh has bed and bank reinforcement and some culverts. There are weirs on the stretch with fish passes present on two weirs at Dunadry. The channel has been artificially straightened. The class 'A' river macrophyte, Water Crowfoot, is present in stream. There is urban, arable, grassland and forestry land use in this area.

From the workshop it was clear that there are numerous in-channel features including around 17 weirs. However, opinion at the workshop was that these are not affecting the migration of fish. Following a site visit by the rivers hydromorphology team further investigation into the weir at the technology park may be required. It is unclear whether this weir is acting as a barrier to migration of sediment and biota.

The river has been re-aligned through the urban areas, particularly through Antrim and the lower reaches for navigation purposes. Dredging took place a couple of years ago from where the marina is located up to the army base. Works are also being carried out at the bottom of the water body in terms of reinforcement.

Small enhancement programmes may be underway already. There is scope to increase the diversity of in-channel features.

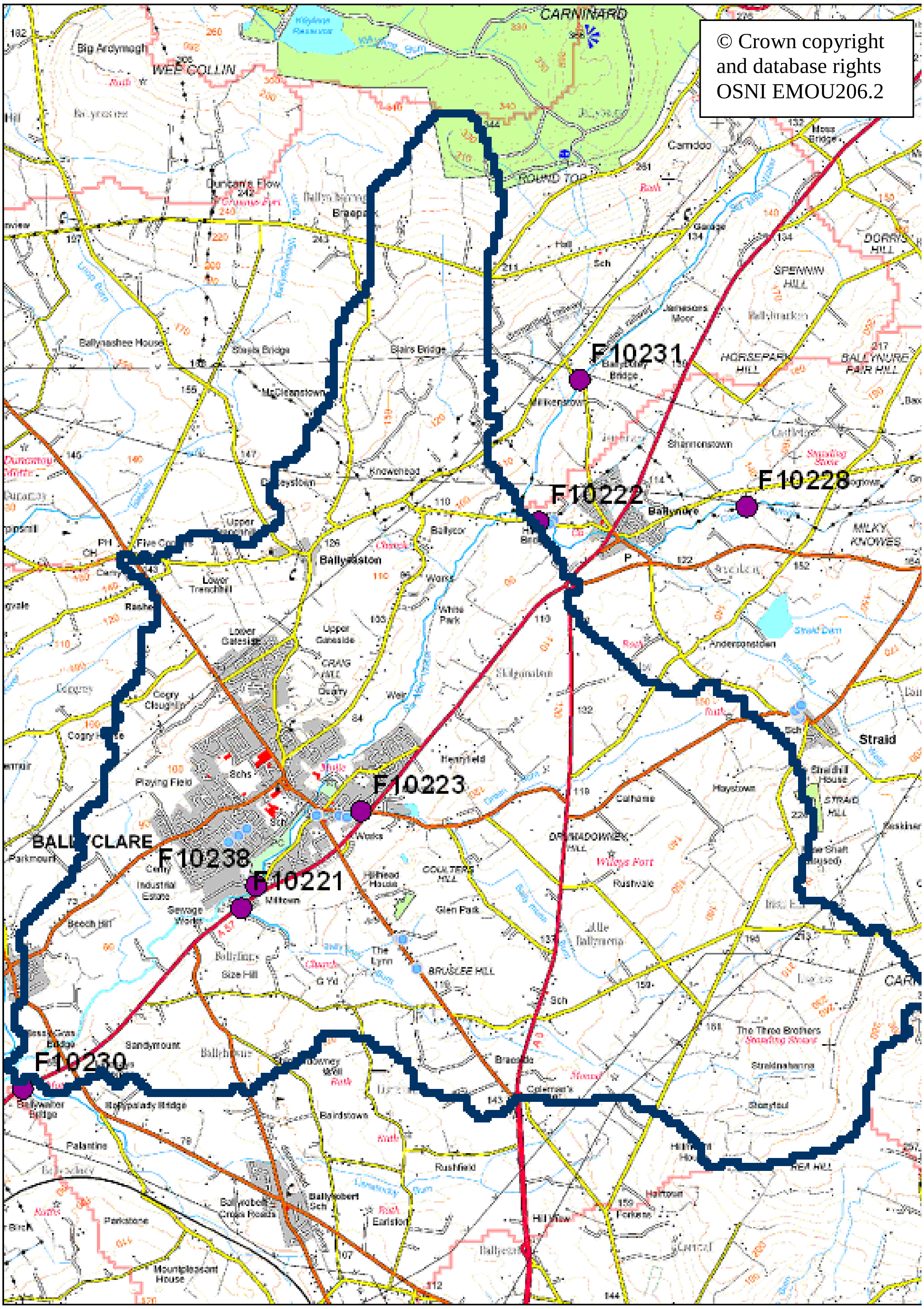
Note from further investigation Dunadry mill race historically has a pressure from *Hydrocotyle* which is an in-channel alien plant species.

GBNI1NB030305122 – FRM

Workshop Classification: MEP
Phys/Chem status: Good
SP: High
Biological status: Poor (fish and diatoms)

2009 Classification: PEP

GBNI1NB030305204 - FRM



Six Mile Water (Ballyclare)

The Six Mile Water through Ballyclare has reinforced banks and smaller streams which are culverted. Land uses in the catchment are urban and agriculture with outfalls from field and road drains and the Ballyclare sewage works.

At the workshop there were no significant impacts from any of the pressures identified. Note that the sewage works have been recently upgraded.

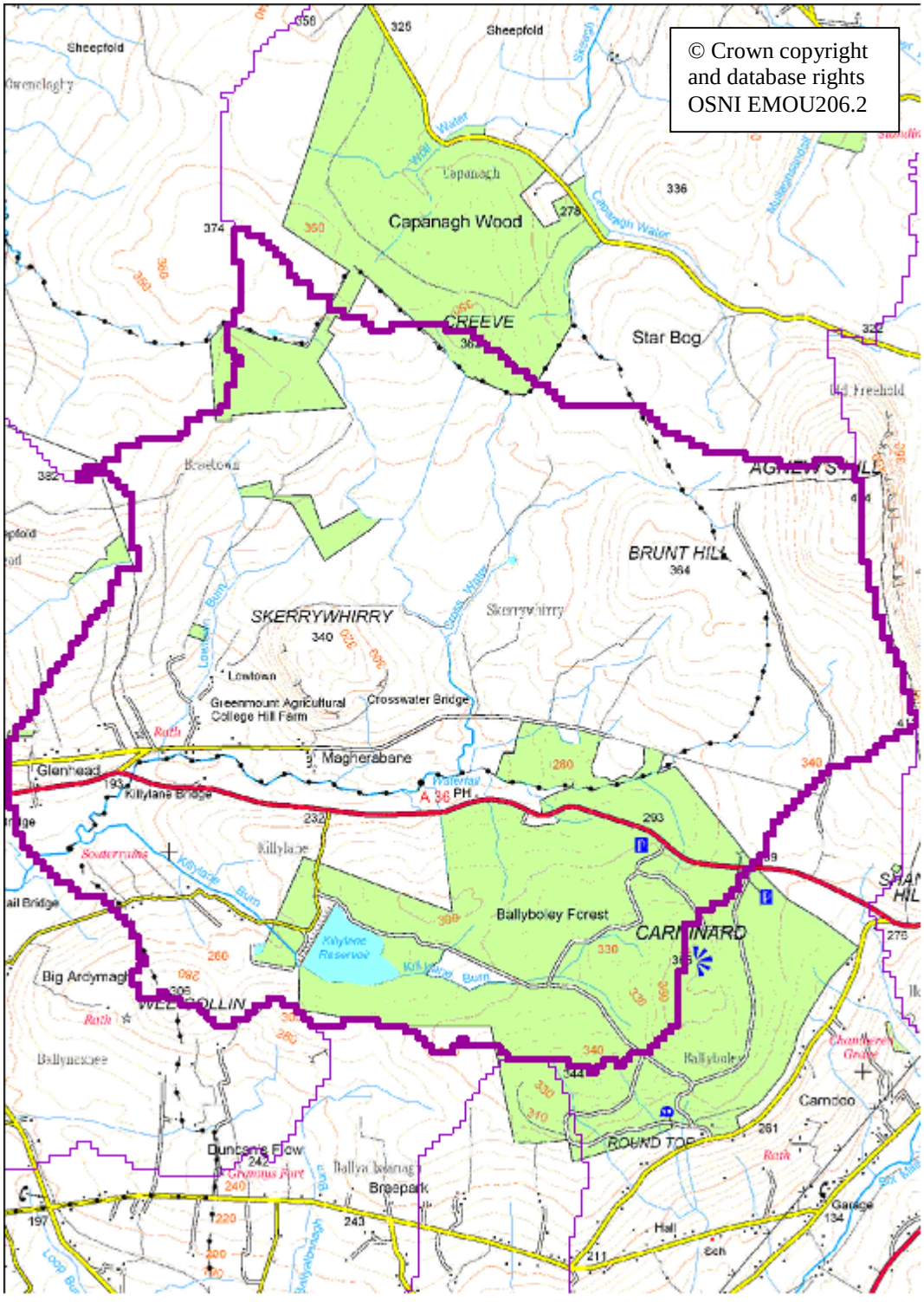
GBNI1NB030305204 - FRM

Workshop Classification: GEP
Phys/Chem status: Good
SP: High
Biological status: Moderate (invertebrates)

2009 Classification: MEP

GBNI1NB030302199 – DWS

Impoundment Name/Works	Killylane Reservoir
Morphological Impact	Yes Impoundment Present
Height of Impoundment	Unknown m
Compensation Flow Ml/D	No
Hydrology Impacted	Yes



Killylane Reservoir and Glenwhirry River

At the workshop it was discussed that the most significant impact was on the downstream river's hydrology and morphology. It was discussed whether it would be possible to redirect flow downstream of the Crosswater abstraction intakes but this may reduce Killylane's capacity. Alternatively abstracting water during winter on the Crosswater may be stopped to allow freshets or spills to take place. This would need discussed with NIW as would sediment management plans. The Killylane report[10] suggested that the flow did not have a huge impact on the biology downstream. It was felt that the impoundment was not acting as a physical barrier to native migratory fish as the upstream reaches would not provide suitable habitat for spawning.

GBNI1NB030302199 – DWS

Workshop Classification: MEP
Phys/Chem status: High
SP: High
Biological status: Good (Moderate fish*)

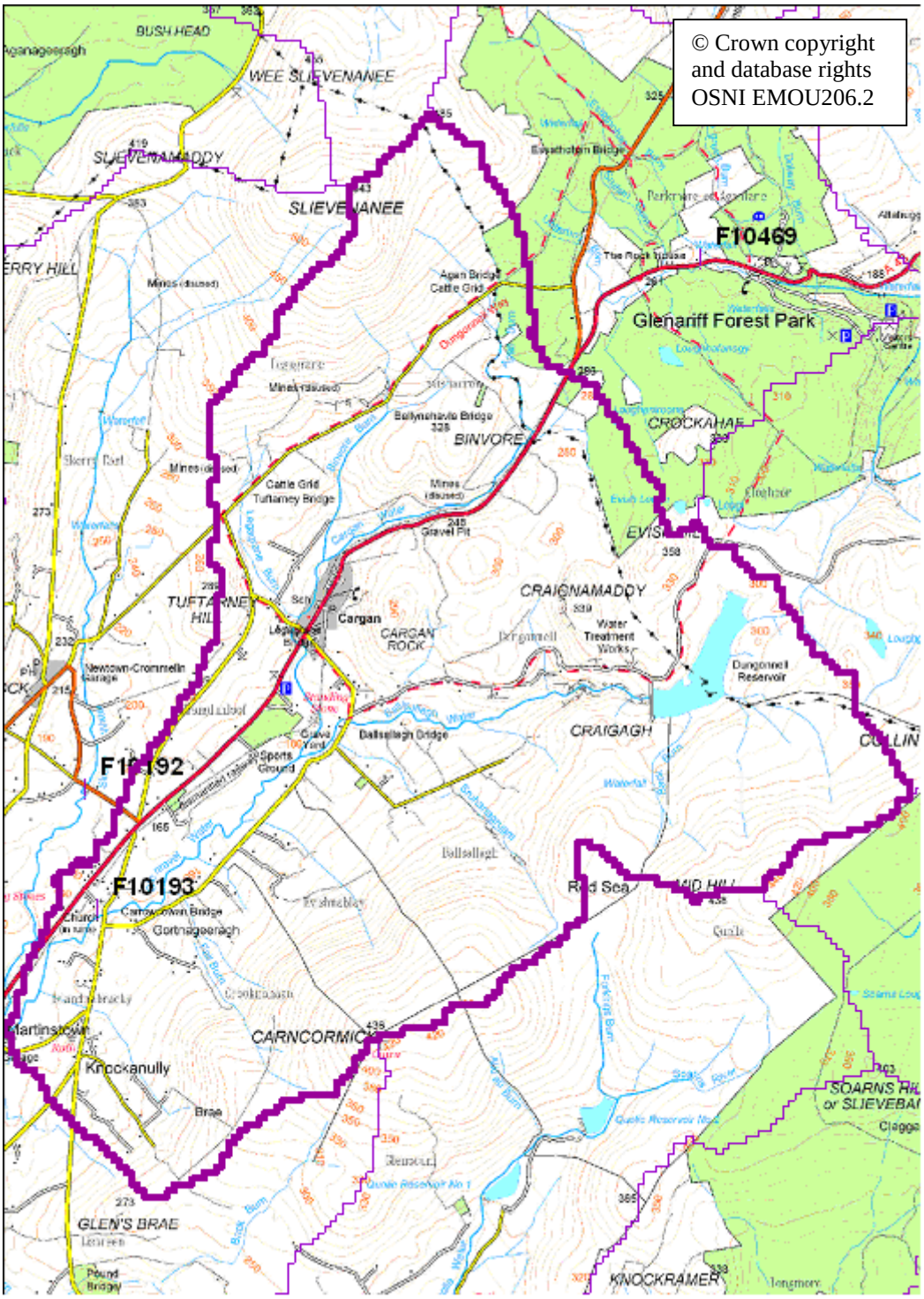
2009 Classification: MEP

*Following UKTAG guidance the fish were not able to downgrade classification.

[10] Assessment of the effect of impoundment on the status of the Killylane Burn and Glenwhirry River, and their derogation as "Heavily Modified Water Bodies". Bláithín Ní Ainín, Ian Donohue, Martyn Kelly and Kenneth Irvine. Freshwater Ecology Research Group and Bowburn-consultancy.co.uk

GBNI1NB030302233 – DWS

Impoundment Name/Works	Dungonnell Dam
Morphological Impact	Yes Impoundment Present
Height of Impoundment	13m
Compensation Flow Ml/D	Yes 0.45
Hydrology Impacted	Yes
Wider Environment	ASSI, AONB, RAMSAR, SAC, SPA



Dungonnell Dam and Ballysallagh Water

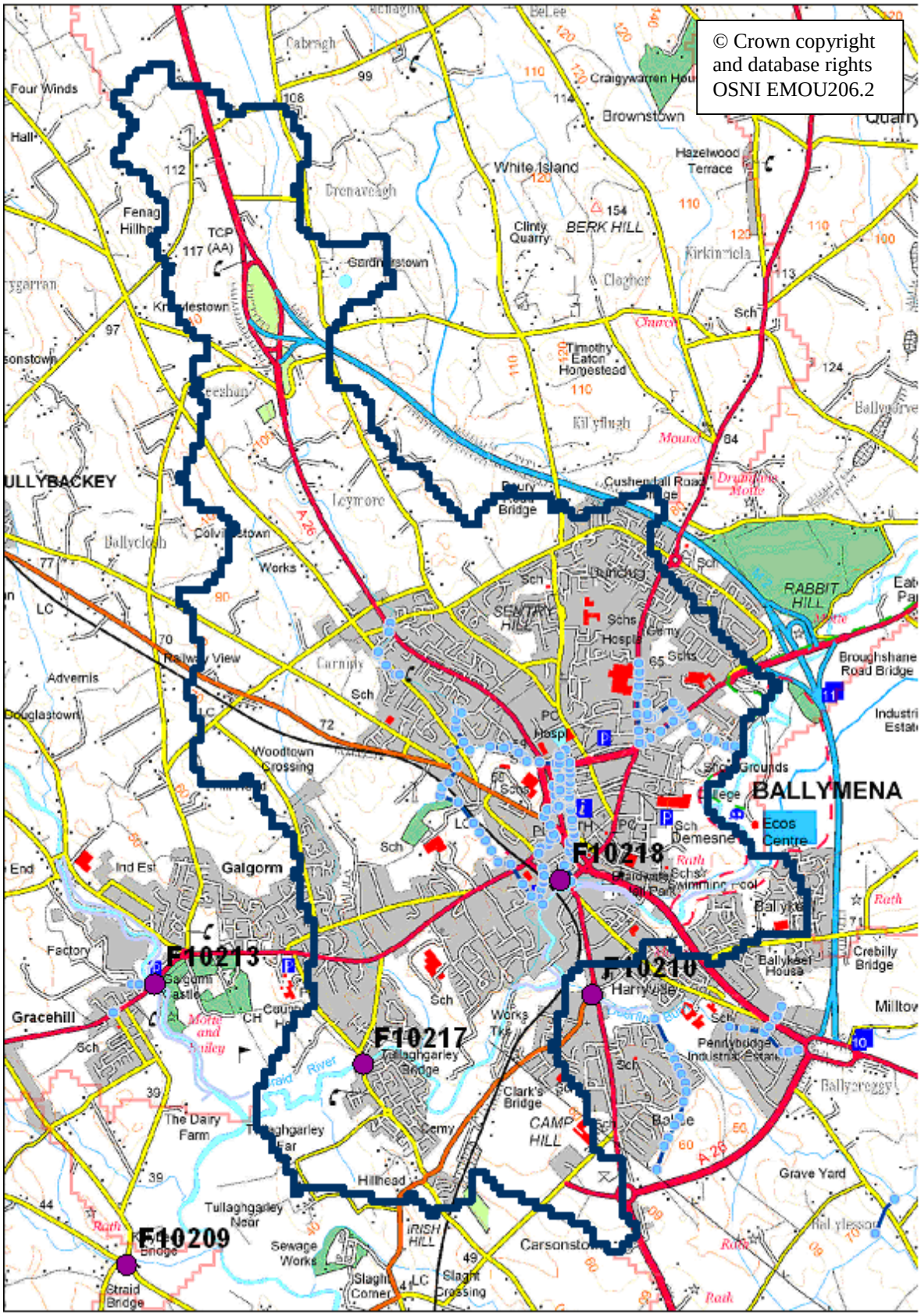
At the workshop it was clear that the hydrology in the downstream river is impacting on the blanket bog and lakes due to the fluctuation in flows. NIW have stated that 0.45 ML/day is released from the reservoir which approximately equates to the Q95 flow of the river. However, this figure needs validated. A suggestion was to reduce the intake from Inver Burn. The baseline flow may not be adequate and should be taken forward with NIW. In addition, both sediment management plans and freshets should be discussed with NIW as these are not in place and would improve the downstream river.

GBNI1NB030302233 – DWS

Workshop Classification: MEP
Phys/Chem status: High
SP: High
Biological status: Good

2009 Classification: MEP

GBNI1NB030302018 – FRM



Braid (Ballymena)

The Braid travels through the largely urban parts of Ballymena where the tributaries are extensively culverted. The number of weirs present is unknown but field and road drains are present. Flood defences are present at Tullygarley New Bridge and the Gallaghers factory. There is agricultural land in the north of this water body.

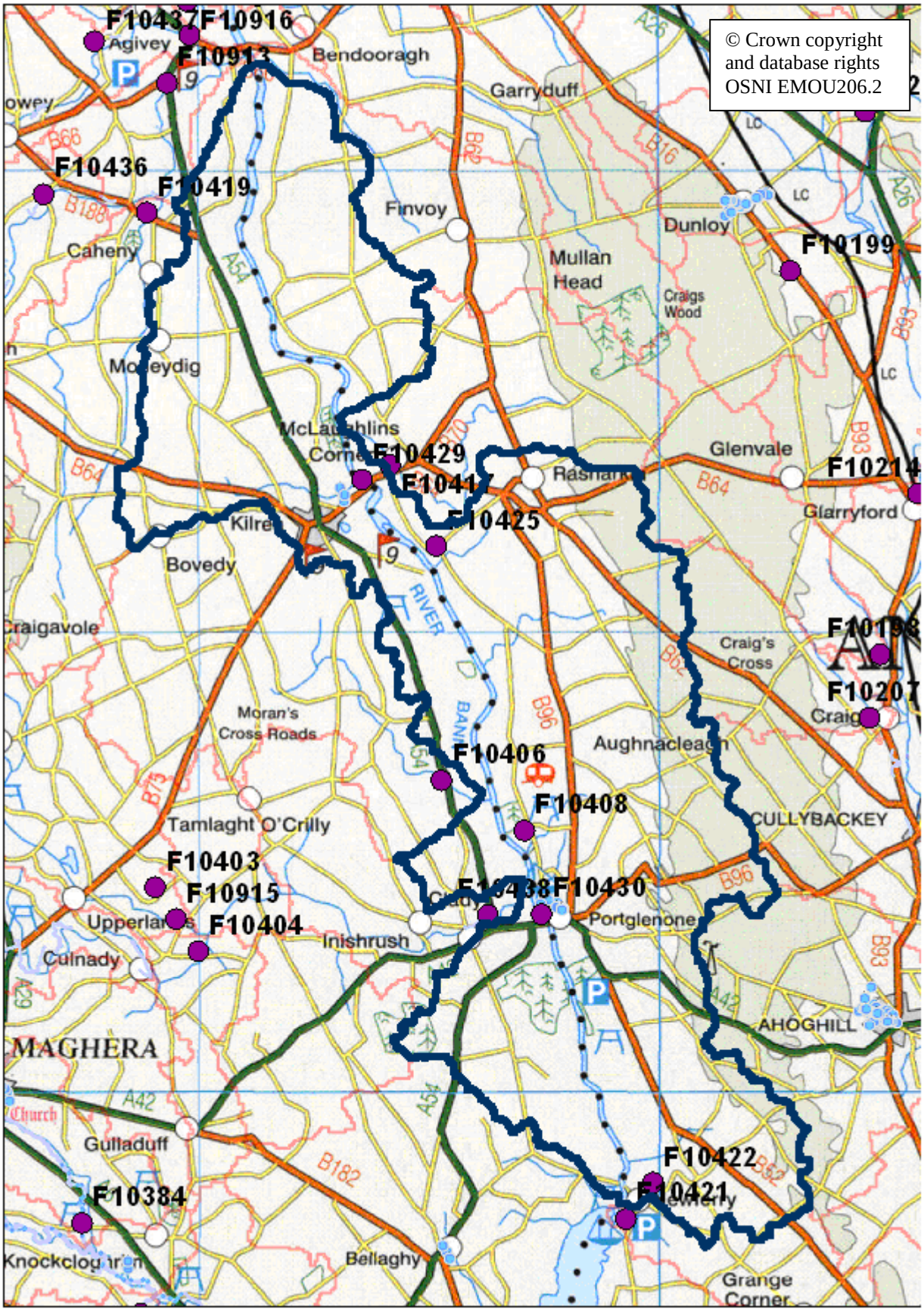
From the workshop it was clear that there are numerous pressures on this waterbody including a lot of physical alterations to the channel. Of these the main mitigation that could be put in place are land management strategies for the rural areas. Water quality on the Braid River remains an issue. Of the two known weirs it is unclear whether the weir at Devenagh has a fish pass. However, there are fish present above the weirs so it is unlikely that their migration is hindered.

GBNI1NB030302018 – FRM

Workshop Classification: MEP
Phys/Chem status: High
SP: High
Biological status: Poor (macrophytes)

2009 Classification: PEP

GBNI1NB030301149 – FRM / NAV



Lower Bann at Portglenone

The main land cover along the river is forestry and pasture. Other pressures include elver slips, eel traps and sewage works discharges. The water body is likely impacted by flow regulation from Lough Neagh. However, the areas closest to the channel are prone to flooding suggesting no flood banks are in place. Reinforcement is found along the urbanised areas of Kilrea and Portglenone. In addition some reinforcement will be found at the flood gates, canals (including Portna) and marinas. From resources available there appears to be 2 sluices, 2 impoundments and 3 weirs, although these are unverified. It is believed these weirs have fish passes. There are 2 fish farms, one at Movanagher. It is not known how much water is abstracted and the significance if any, there is on the rest of the channel. Navigation pressures are likely to have impacted on this water body.

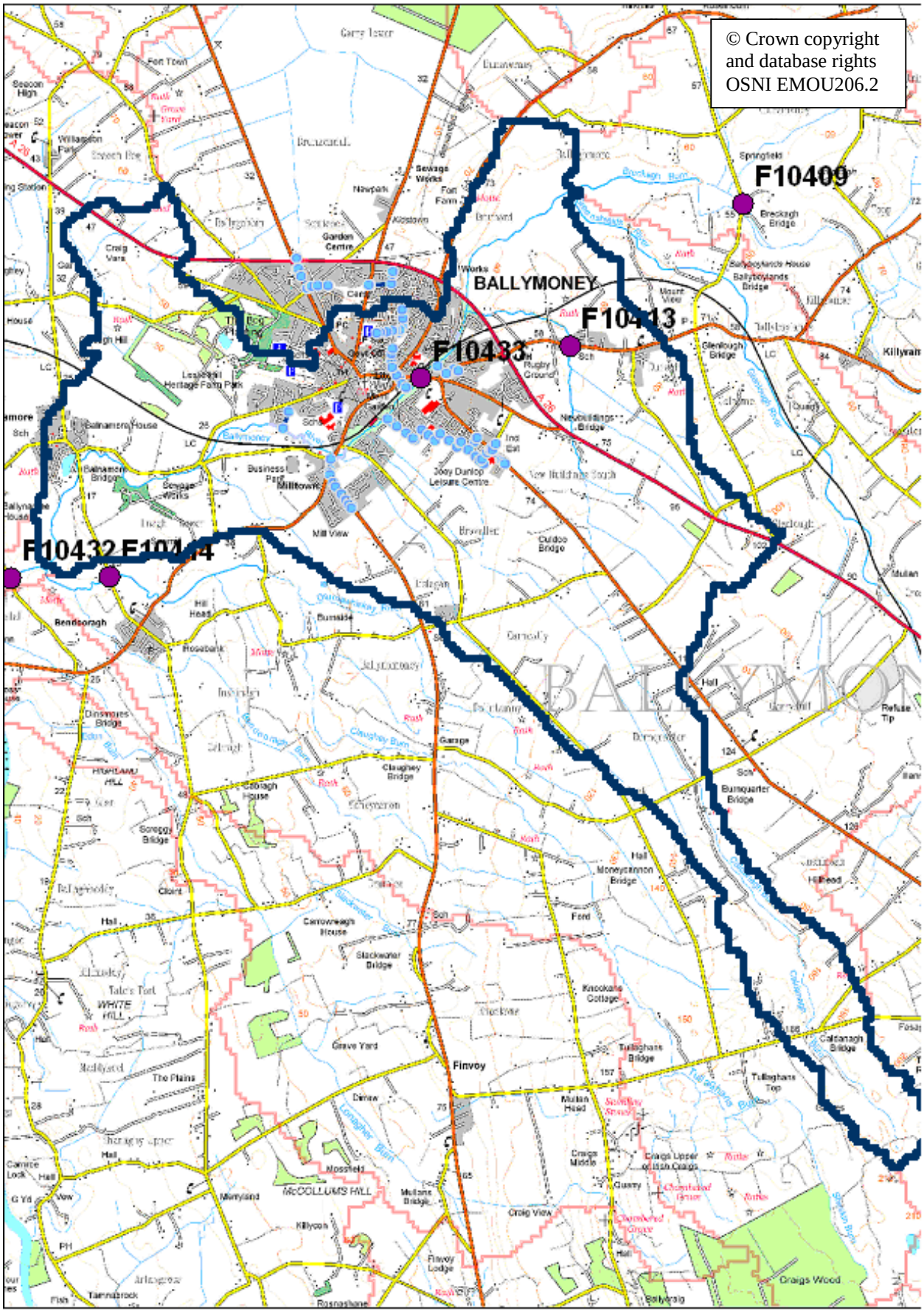
At the workshop it was decided to incorporate both flood risk management and navigation for this water body. The Lower Bann has been widened and deepened due to the gates at Toome and the canals in this water body get dredged for navigation but this is done under a licence agreement with NIEA. Fish farms abstract a significant amount of water but there is probably no hydrological impact. The areas closest to the channel still flood and are subject to poaching. However, it is unpractical to implement fencing in these areas due to the river's connectivity with the floodplain. The banks are also subject to boat wash which increases erosion. Commercial peat is extracted from the top of Lough Beg.

GBNI1NB030301149 – FRM / NAV

Workshop Classification: MEP
Phys/Chem status: Moderate
SP: High
Biological status: Poor (macrophytes)

2009 Classification: PEP

GBNI1NB030301220 – FRM



Lower Bann (Ballymoney River)

The main land cover is urbanisation and pasture at Ballymoney. There is reinforcement through the town and the river is embanked only in a small section. From the resources available there is a sluice, 2 impoundments and 3 weirs, including one at Balnamar Bridge that has recently been re-concreted although these are unverified. It is not known if any part of the river has been artificially straightened and only small feeder streams in the town are culverted. There are road and field drains as usual.

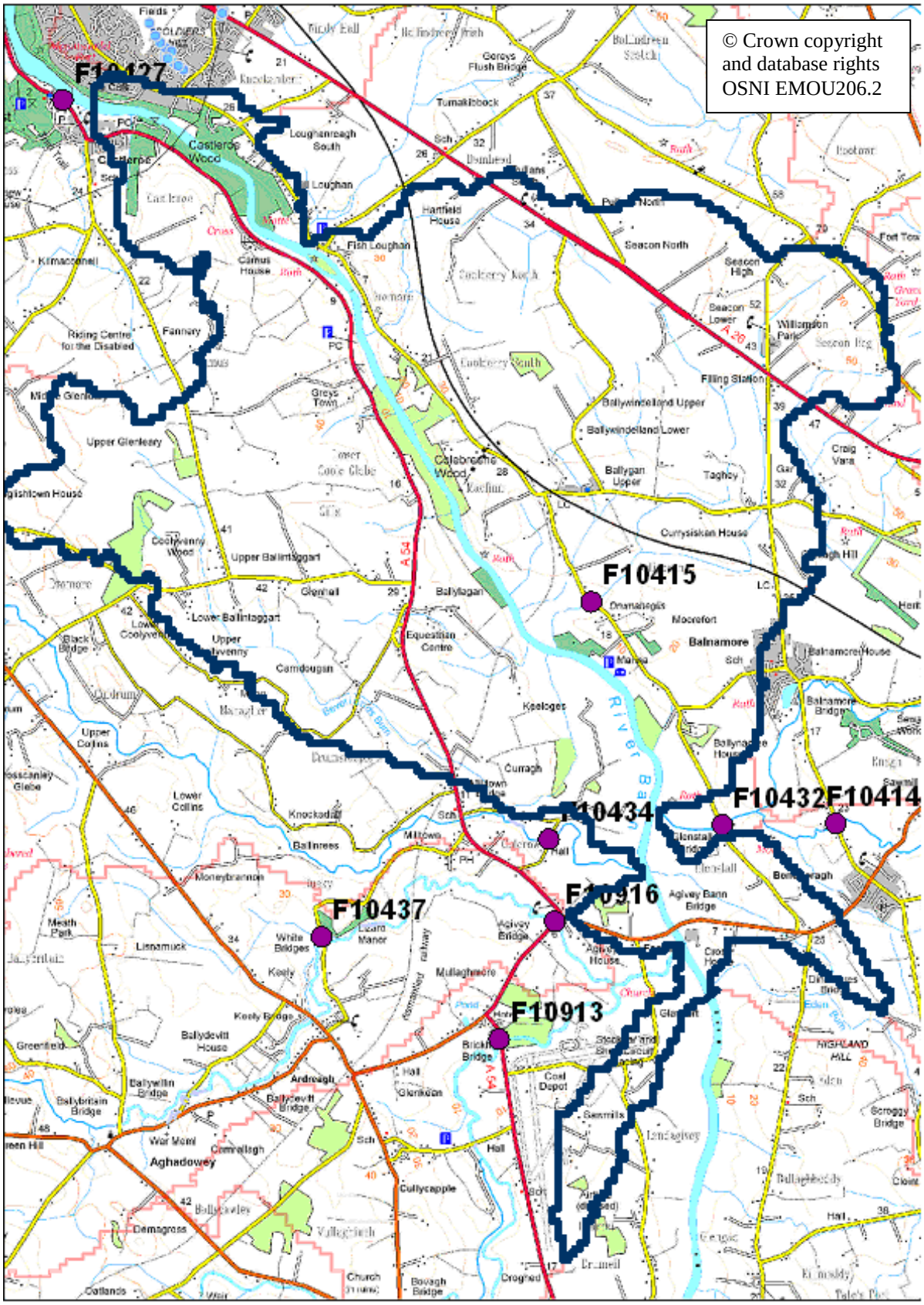
At the workshop there was discussion that there is fish movement up the system as salmon are found up Breagh Burn. There is a healthy population of trout and it may be a sea trout spawning area. However, lamprey may be impeded by the weirs including the recently re-concreted Balnamar weir as it is not known whether there is a fish pass and is if it is suitable. Strategies could be put in place for both rural and urban pressures, if not present already. Habitat could be improved in some areas particularly through the park area; however, its ecological benefits may not be significant.

GBNI1NB030301220 – FRM

Workshop Classification: MEP
Phys/Chem status: Moderate
SP: Good
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI1NB030301214 – FRM / NAV



Lower Bann South of Coleraine

This water body is subject to the flow control at Lough Neagh. The main land cover is pasture and forestry. On a local scale there seems to be no artificial straightening. Where the road meets the river there may be some old reinforcement but on a minor scale. Minor reinforcement may be observed at the jetties, slipways and marina. The pumping station may abstract but more information is required. Navigation pressures are likely to have impacted on this waterbody.

At the workshop it was decided to incorporate both flood risk management and navigation for this water body. The channel is probably re-graded due to the flood gates at Toome. Navigation pressures are eroding the bank which may be causing significant ecological impacts. The land cover is also impacting on the channel as there is little buffer between fields and the river. Countryside management schemes may not be adequate as it is unpractical to implement fencing in these areas due to the rivers connectivity with the floodplain, buffer zones of trees may prove more beneficial. The distribution of Himalayan Balsam is unknown. Following a site visit, rhododendron was densely distributed in small pockets.

Rivers Agency has started an erosion project on a section of this water body to counteract the impact of boat wash on the river banks. The use of "log Christmas trees," will help the energy from the waves of the boats be absorbed rather than eroding the banks.

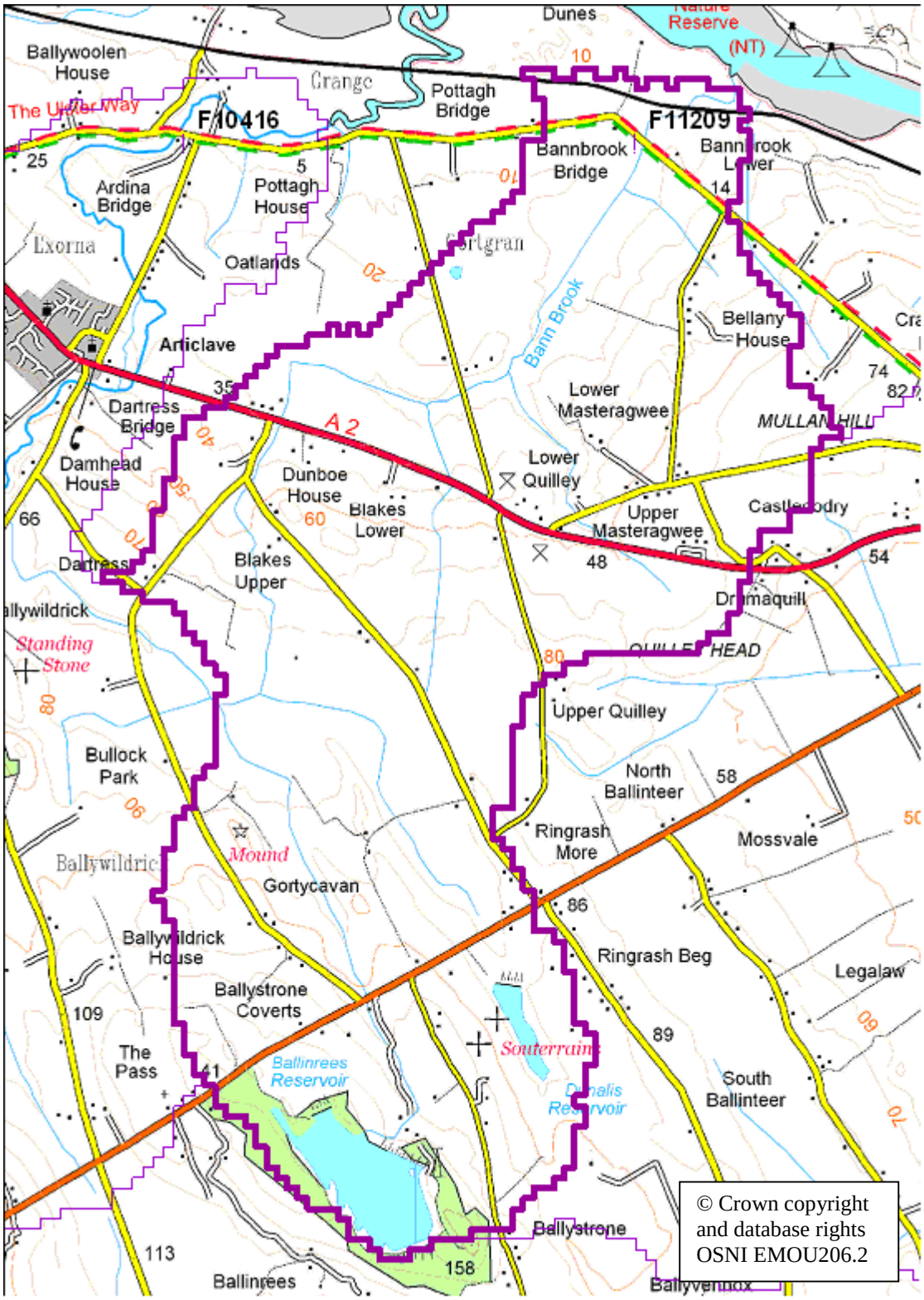
GBNI1NB030301214 – FRM / NAV

Workshop Classification: MEP
Phys/Chem status: Good
SP: High
Biological status: Poor (diatoms)

2009 Classification: PEP

GBNI1NB030301071 – DWS

Impoundment Name/Works	Ballinrees
Morphological Impact	Impoundment Present
Height of Impoundment	9m
Compensation Flow Ml/D	No
Hydrology Impacted	No



Ballinrees

At the workshop it was discussed that there is a morphological impact on the downstream river. Measures regarding sediment are dependent on compensation flow and therefore discussions with NIW are required. There is potential to split this water body to assist with Programmes of Measures. The river is known to be stocked by a local angling club.

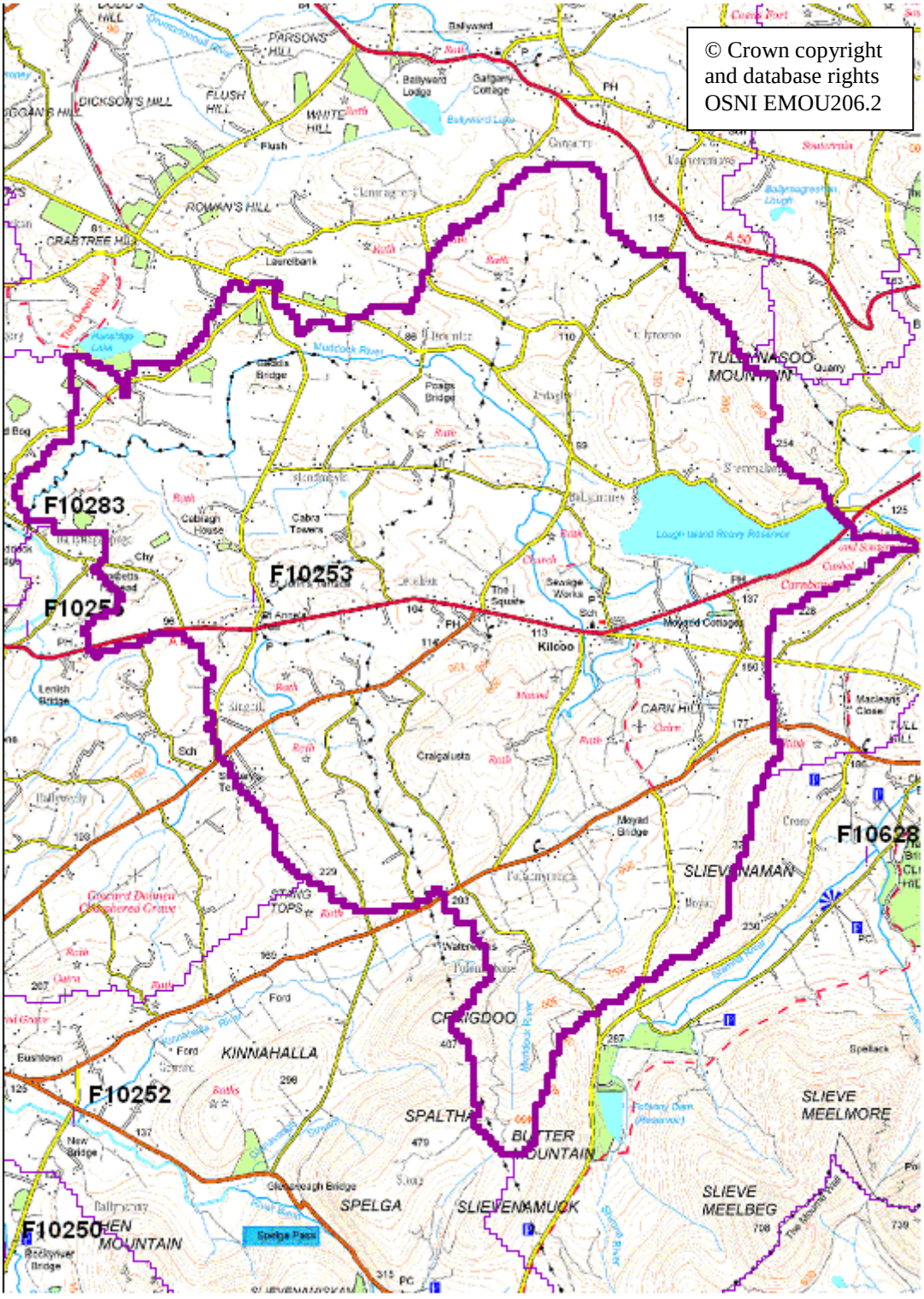
GBNI1NB030301071 – DWS

Workshop Classification: MEP
Phys/Chem status: Good
SP: High
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI3NB0017 and GBNI1NB030308188 - DWS

Impoundment Name/Works	Lough Island Reavy
Morphological Impact	Yes Impoundment Present
Height of Impoundment	11m
Compensation Flow Ml/D	Yes 10.90
Hydrology Impacted	Yes



Lough Island Reavy and Muddock River

At the workshop it was discussed that the reservoir was built for the Banbridge flax industry. Historical maps indicated that it was a natural lake that has been impounded.

In the summer more water is taken from the reservoir than goes in, but NIW say they don't abstract much as this is only a supplementary source. There were suggestions to focus on Muddock River rather than Lough Island Reavy. The left channel has been diverted and has subsequently left the channel relatively dry. There may be an inadequate compensation flow for Muddock River which requires a fixed water level.

Morphologically the river has been altered downstream. Sediment management plans may be a measure that could be implemented but this needs discussed with NIW. More information is required on the migration of fish in this water body as it was questioned at the workshop.

GBNI3NB0017 – DWS

Workshop Classification of reservoir: MEP
Chemical status: Moderate
Biological status: Moderate

2009 Classification: MEP

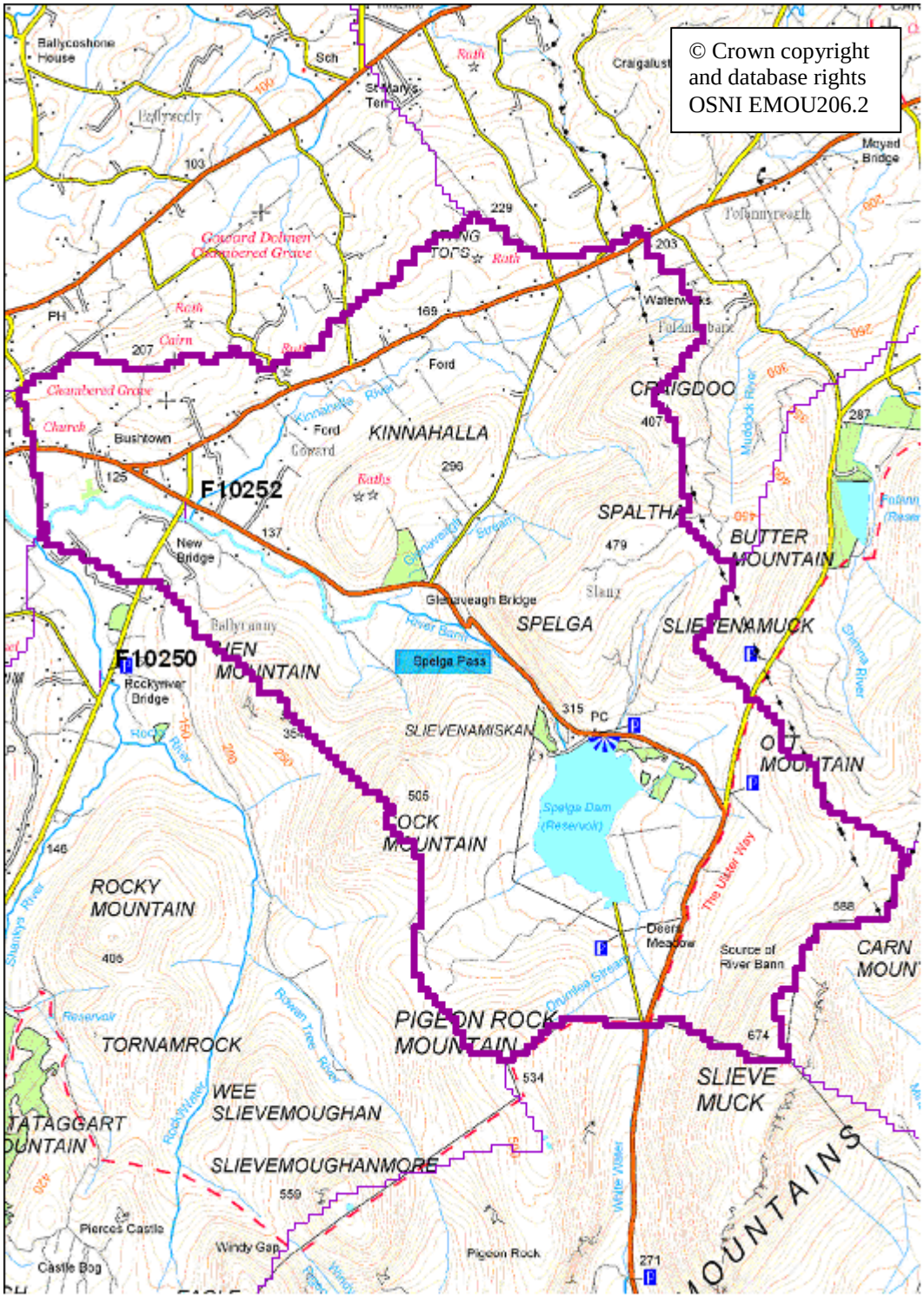
GBNI1NB030308188 – DWS

Workshop Classification of river: MEP
Phys/Chem status: Moderate
SP: High
Biological status: Poor (macrophytes)

2009 Classification: PEP

GBNI3NB0026 and GBNI1NB030308089 - DWS

Impoundment Name/Works	Spelga Dam
Morphological Impact	Yes Impoundment Present
Height of Impoundment	30m
Compensation Flow Ml/D	Yes 2.28
Hydrology Impacted	Yes



Spelga Dam and River Bann

At the workshop the main impacts are on the hydrology and morphology of the river downstream. Flow is impacted but the compensation flow is adequate (greater than the Q95 low flow) and therefore this is screened out. Downstream of the impoundment is engineered but not for a significant distance. Mitigation measures to implement sediment management plans and freshets are a possibility but would need taken forward with NIW. Sheep dipping is also present in the area.

GBNI3NB0026 - DWS

Workshop Classification of reservoir: MEP
Chemical status: Good
Biological status: Bad

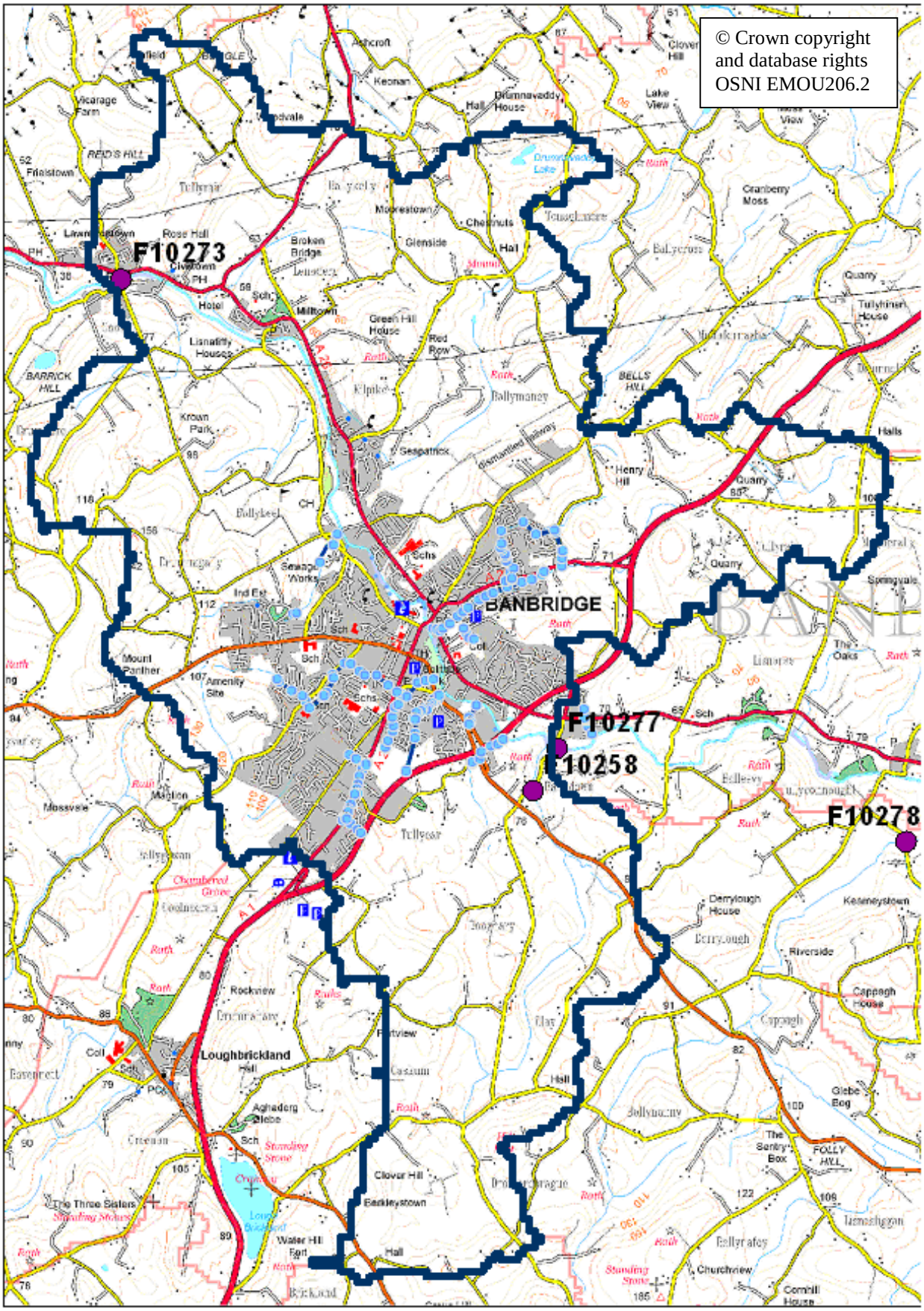
2009 Classification: MEP or worse
There was insufficient biological data available to provide a more specific classification. Diatom data was unavailable at the time of classification and UKTAG guidance recommended not using macrophytes or fish for classification as they would be reflecting the hydromorphological pressure that is associated with its use.

GBNI1NB030308089 – DWS

Workshop Classification of river: MEP
Phys/Chem status: High
SP: High
Biological status: Good

2009 Classification: MEP

GBNI1NB030308197 – FRM



Upper Bann at Banbridge

The Upper Bann flows through Banbridge where there are some flood defences such as boulders and soil embankments on the main river with some stone weirs. There are extensive culverts on the small streams and approximately 50 discharge pipes. There is also a discharge from the sewage treatment works at Huntley Bridge. The rural areas are mostly used for grazing by cattle and sheep and there are a few industrial discharges.

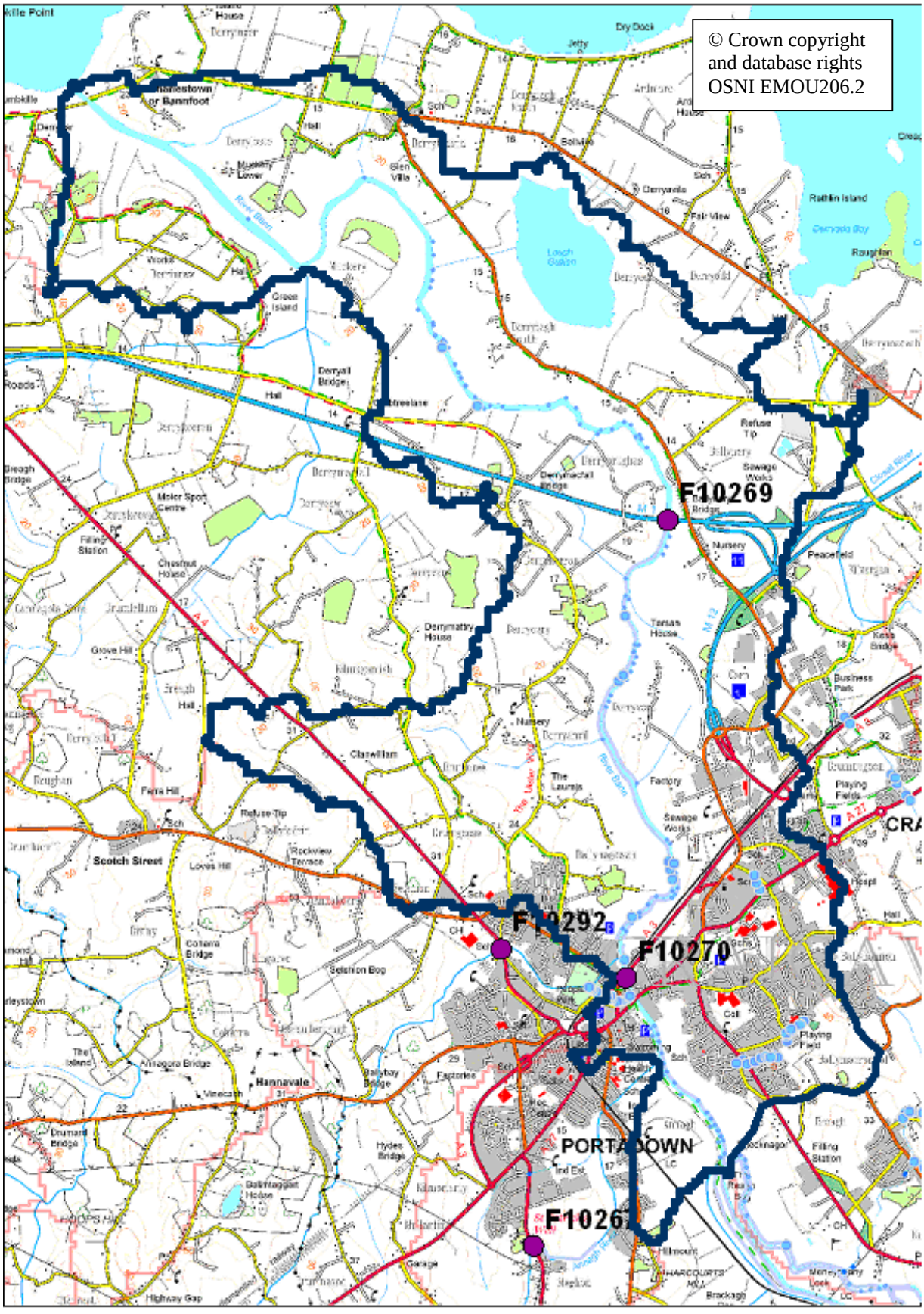
From the workshop the main mitigation identified concerned future development plans and land use strategies that were probably not adequate and could be put in place. The HEP scheme at Lawrencetown was questioned as to if there were any potential impacts. Salmon and trout are found upstream but it is unclear if other fish species are impacted on. Alien plant species such as Giant Hogweed are removed when there is a health and safety issue but not in relation to bank destabilisation. Water quality may be an issue because of the number of outlets but it was felt these would be dealt with under drainage plans.

GBNI1NB030308197 – FRM

Workshop Classification: MEP
Phys/Chem status: Good
SP: High
Biological status: Moderate (invertebrates and macrophytes)

2009 Classification: MEP

GBNI1NB030308103 – FRM / NAV



Upper Bann at Bannfoot

The Upper Bann between Portadown and Bannfoot has been designated as heavily modified due to inland navigation. The channel is reinforced at Portadown with a slip way and fishing stands. There are canoe steps above Shillington's Bridge and an old weir above Knock Bridge for the Canal. More information on dredging in the channel is required.

At the workshop it was decided both flood risk management and navigation is applicable for this water body. The river banks at Portadown have been reinforced but this was not thought to be significant. The river upstream of Portadown has been over-deepened for navigation purposes. Margins are being retained. 26% of the banks are flood-protected mainly to protect the agricultural land usage. All are vegetated earth banks with no trees. This does impact on the connectivity of the channel with the floodplain although the river does flood into the floodplain closer to Lough Neagh.

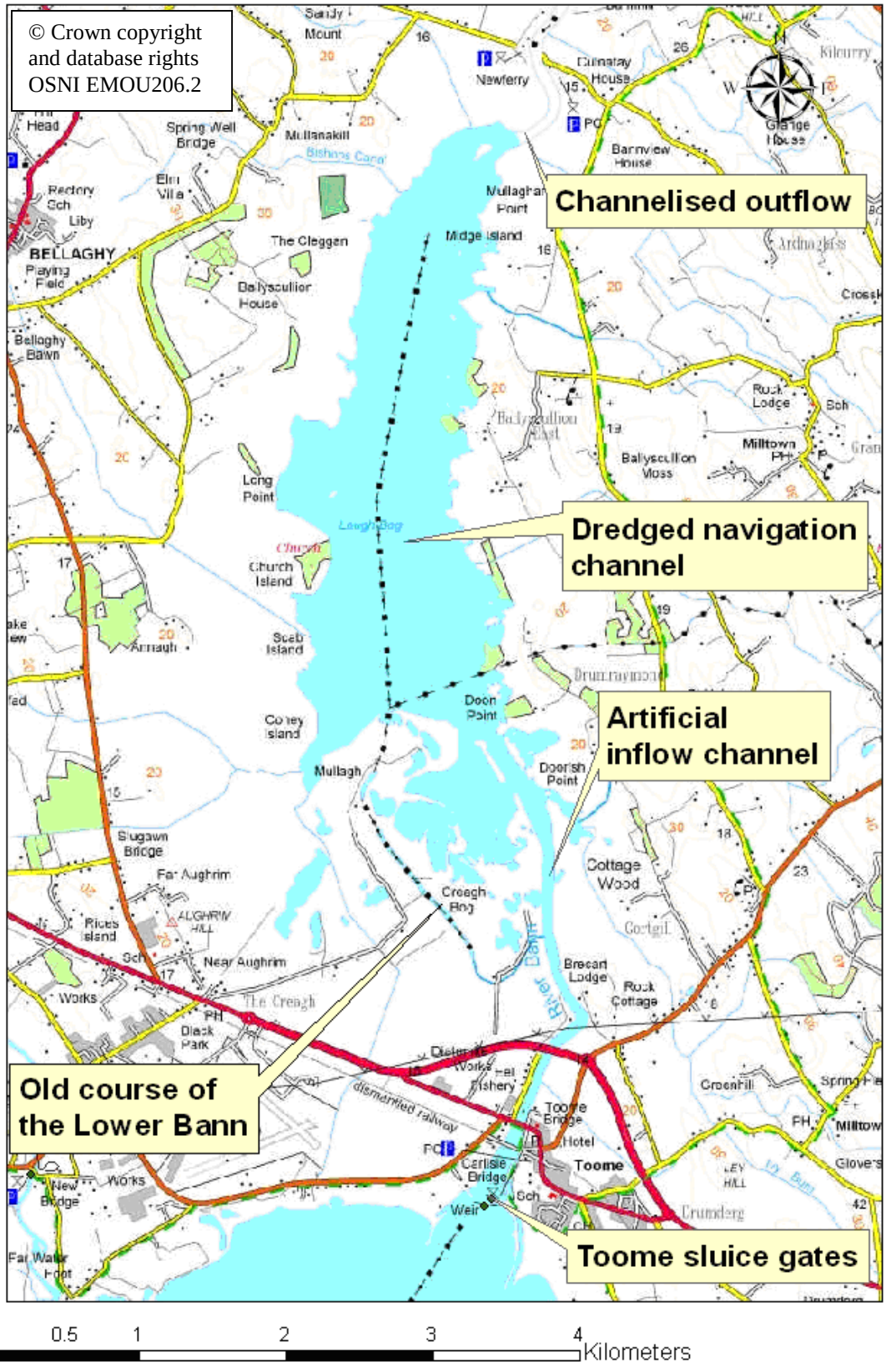
GBNI1NB030308103 – FRM / NAV

Workshop Classification: MEP
Phys/Chem status: Moderate
SP: High
Biological status: Poor (invertebrates)

2009 Classification: PEP

GBNI3NB0013 – FRM/WE/NAV

Lough Beg



Lough Beg

Lough Beg is an ASSI, RAMSAR site and SPA. It was formed by a widening of the Lower Bann and is relatively shallow (max 2m deep) with the exception of the dredged navigation channel (up to 4m deep). The Northern Ireland Lake Survey[11] estimated the turnover time varies from 0.3 days in January to 5 days in July. The hydrological regime is controlled by the Toome sluice gates 3km upstream of the lake. The water levels have been artificially lowered and are also dependent on the levels within the rest of the Lower Bann system. The natural variability of water levels will no longer occur.

From the workshop it was discussed that all measures are in place and adequate for this water body.

GBNI3NB0013

Hydromorphological Classification: GEP
Chemical status: Poor
Biological status: Poor (phytoplankton, diatoms and macrophytes)

2009 Classification: PEP

[11] Lawrie E W., Wolfe-Murphy S.A., and Gibson. C.E., 1992. Northern Ireland Lakes Survey Vol 7. Large lakes; a botanical survey of the Eight largest lakes in Northern Ireland.

GBNI3NB00032-FRM/WE

Lough Neagh

Lough Neagh

Lough Neagh is designated as a RAMSAR site, ASSI and SPA. Lough Neagh has been lowered as part of various drainage schemes to prevent flooding of agricultural land. The net effect of this is an overall lowering of between 2-3m. The water levels are now controlled by the sluice gates at Toome and therefore the natural regime of high and low water levels no longer occurs.

From the workshop it was discussed that all hydromorphological measures are in place and adequate for this water body.

GBNI3NB00032

Hydromorphology Classification: GEP
Chemical Status: Bad
Biological status: Bad (macrophytes)

2009 Classification: BEP

ADDITIONAL WATER BODY

GBNI1NB030306208 - FRM

Lagan Canal, Goudy River, Lough Neagh Peripherals

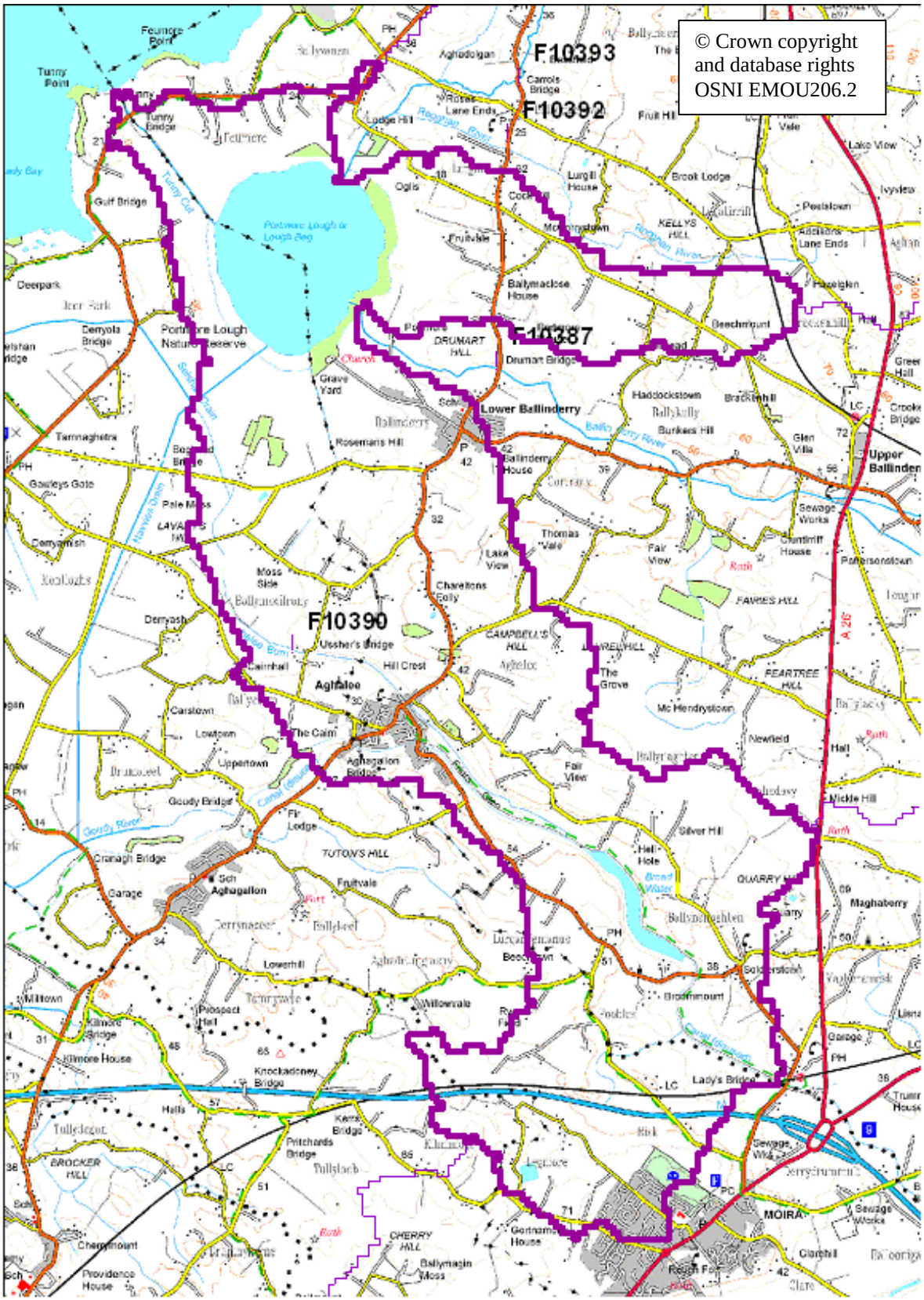
A desk top study was carried out with NIEA Freshwater Monitoring and Assessment Team, The WMU hydrology team and the WMU hydromorphology team. It was assessed that in-channel, marginal and riparian habitats could be improved. The Lagan peripherals are managed to prevent flooding, so it is not known how feasible it will be to incorporate restoration measures without causing increased flood risk. Individual assessments may be required on a site by site basis.

Hydromorphological Classification: MEP
Phys/Chem status: Moderate
SP: High
Biological status: Bad (invertebrates)

2009 Classification: BEP

ADDITIONAL WATER BODY

GBNI1NB030306194 – FRM



Aghalee River

A desk top study was carried out with NIEA Freshwater Monitoring and Assessment Team, The WMU hydrology team and the WMU hydromorphology team. It was assessed that there is no impact from hydromorphological alterations of water and sediment input from artificial means. Although Rivers Agency and Natural Heritage confirmed there is vegetation control carried out along the river they agree this management is not having an adverse ecological impact. The marginal and riparian habitats could be improved along with an increase in-channel morphological diversity.

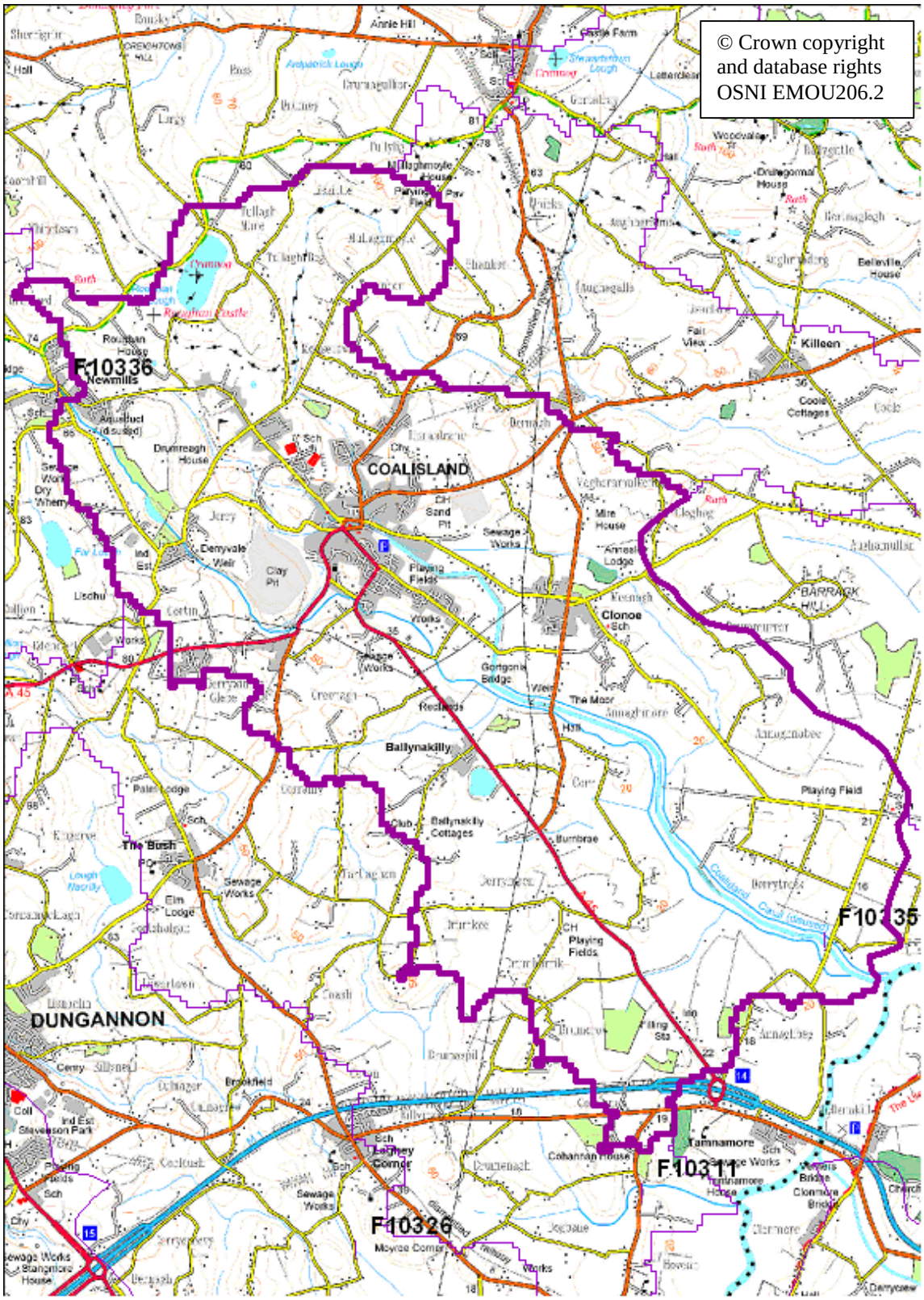
GBNI1NB030306194 – FRM

Hydromorphological Classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Poor (invertebrates)

2009 Classification: PEP

ADDITIONAL WATER BODY

GBNI1NB030307145 - FRM



Coalisland Canal, Torrent River

The Coalisland Canal and the Torrent River are intertwined with the River flowing directly though the canal in several places leaving the river course to become sluggish. The river has been narrowed and extensively reinforced. Site visits were undertaken in March 2009 confirming the presence of weirs, a canal lock gate, embankments and the alien bank side species Giant Hogweed. No current navigation activities were obvious.

Land uses include agriculture, industry and urban areas, rubbish was evident in the channel, and there were indications of pollution.

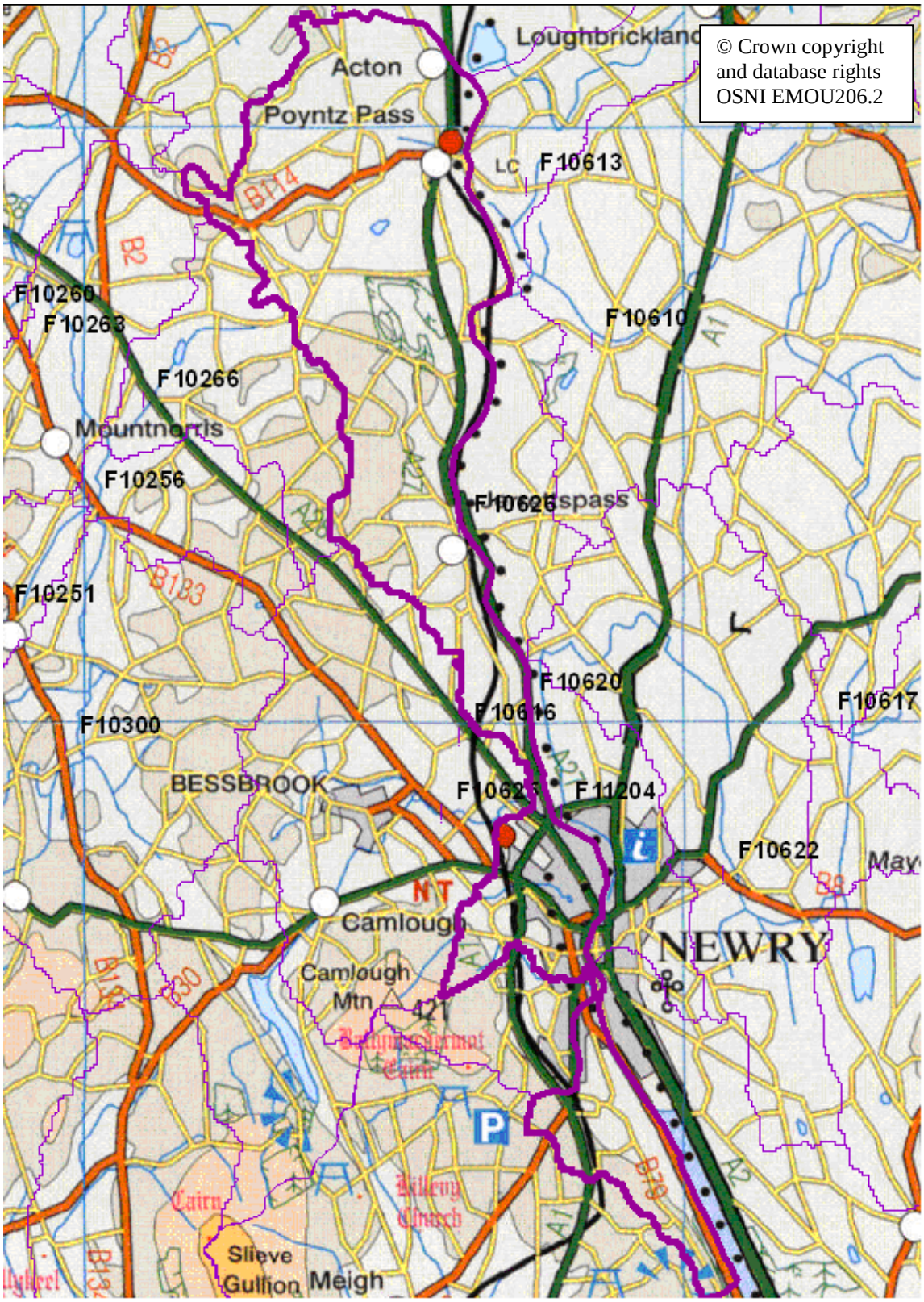
GBNI1NB030307145 - FRM

Hydromorphological Classification: MEP
Phys/Chem status: Moderate
SP: Good
Biological status: Poor (macrophytes and diatoms)

2009 Classification: PEP

ARTIFICIAL WATER BODY (AWB)

GBNI1NB060604048 – NAV (New WB ID June 09) GBNI1NB060601023



Newry Canal

The Newry Canal water body was designated as artificial within new water body boundaries defined in 2009. A desk top study was carried out by the NIEA Freshwater Monitoring and Assessment Hydrology teams. The UKTAG mitigation measures spreadsheet was completed and a moderate ecological potential concluded due to the presence of hard bank protection which has reduced the marginal and riparian habitat, and locks and weirs along the canal without proper fish passage.

GBNI1NB060604048

Hydromorphological Classification: MEP
Phys/Chem status: Nothing
SP: Nothing
Biological status: Nothing

2009 Classification: MEP