

# CURRAGHINALT GOLD PROJECT, COUNTY TYRONE, NORTHERN IRELAND

**Biological Water Quality Assessment of the  
Owenkillew, Owenreagh and Tributaries**  
Prepared for: Dalradian Gold Limited

**DALRADIAN**  
GOLD

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**SLR** 

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## EXECUTIVE SUMMARY

This report has been prepared by SLR Consulting Ireland on behalf of Dalradian Gold Limited. It presents the results of the biological water quality assessment of the Owenkillew River, Owenreagh River and associated tributaries to inform the baseline ecological conditions at the site of the proposed gold mine development as part of the Curraghinalt Project, County Tyrone.

The results would indicate that the biological water quality of the Owenkillew River and its larger tributaries and the Owenreagh River ranges from good to very good in terms of both the BMWP scores and ASPT.

Of all the watercourses surveyed only the Alwories Burn has less than very good biological water quality when assessed against the ASPT.

In terms of the small tributary streams, sites of low to moderate invertebrate diversity will generally produce low BMWP scores. In terms of the Pollanroe Burn and the Alwories Burn these low scores are likely to somewhat reflect the instream habitat rather than being indicative of their biological water quality. However, by using the scores obtained for ASPT, which is considered a more reliable indicator of biological water quality, this would indicate “very good” biological water for the Pollanroe Burn but still only fair for the Alwories Burn.

In terms of the Alwories Burn it is considered that the high levels of ochre present in this watercourse and which is deposited on the bed is likely to be a contributing factor to the poor macroinvertebrate assemblage recorded during the sampling.

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## 1.0 INTRODUCTION

### 1.1 Background

This report presents the results of the biological water quality assessment carried out during 2015/16 to inform the baseline ecological conditions in respect to the quality of surface waters at the site of the proposed gold mine development as part of the Curraghinalt Project, County Tyrone.

It has been prepared by SLR Consulting Ireland (SLR) on behalf of Dalradian Gold Limited (DGL) to inform the Environmental Impact Assessment (EIA) process as part of the planning application for the development of a gold mine as part of the Curraghinalt Project.

### 1.2 Location and Setting

The Curraghinalt gold deposit is located in the South Sperrin Mountains approximately 7.5 km east of the village of Gortin, and between the settlements of Rouskey and Greencastle, County Tyrone (Figure 1). It lies in the catchment of the Owenkillev River covering some 454 km<sup>2</sup> with a combined river length (including tributaries) of approximately 81 km and which forms part of the large River Foyle system.

The Owenkillev River rises in Davagh Forest and flows in a westerly direction through the South Sperrin Mountains and to the north of the Curraghinalt gold deposit. It is a large river that is oligotrophic in its upper reaches becoming oligo-mesotrophic through its middle and lower reaches.

The Owenkillev River is joined by the Owenreagh River east of Gortin. This river and its tributaries drain a catchment area of 85 km<sup>2</sup>. The river flows to the south of the Curraghinalt gold deposit separated by a topographic ridge that forms the drainage divide between the Owenkillev River and the Owenreagh River.

The Owenkillev River is designated as a Special Area of Conservation (SAC) and an Area of Special Scientific Interest (ASSI), primarily for its population of freshwater pearl mussel (*Margaritifera margaritifera*). However, the Owenreagh River also supports good populations of freshwater pearl mussel and is proposed as an ASSI.

Both the Owenkillev and Owenreagh Rivers are important nursery and spawning areas for salmon (*Salmo salar*) and trout (*Salmo trutta*).

### 1.3 Study Aims and Objectives

The aim of the study was to provide an assessment of the indicative biological water quality in the Owenkillev River, the Owenreagh River and some of their associated tributaries to inform baseline conditions upon which to make any assessment of the implications of the gold mine development.

## 2.0 METHODOLOGY

Baseline ecological data were collated through the sampling and identification of macroinvertebrates families and assessment was undertaken using biotic indices in accordance with current standard methodologies and published good practice guidelines.

### 2.1 Study Area

The area of study for the biological water quality comprised of a total of 14 sampling sites in the Owenkillev (eight sites) and Owenreagh (six sites) catchments. These included nine sampling sites that were used previously by SLR in 2012 for an assessment of biological water quality as part of the programme carried out for an Environmental Baseline Study commissioned by DGL as part of its exploratory works.

Table 1 provides a summary of the sites used for the sampling of macroinvertebrates, and their locations are shown in Figure 1. Where sites were used previously the former references used for these sites are indicated in brackets next to the reference system used during this round of sampling.

**Table 1: Location of Sampling Site**

Reference	Grid Reference	Location
Owenkillev Catchment		
SLR-Ok01	H61338476	Owenkillev River downstream of the Monanameal Bridge
SLR-Ok02 (EBS01)	H60558610	Owenkillev River downstream of the Glenhull Bridge
SLR-Ok03 (ESB02)	H60198704	Coneyglen Burn downstream of road bridge
SLR-Ok04 (ESB03)	H58818677	Owenkillev River downstream of the Greenan Bridge
SLR-Ok05 (ESB04)	H57638740	Glenlark Burn downstream of Glenlark Bridge
SLR-Ok06 (ESB05)	H57128711	Owenkillev River downstream of confluence of Curraghinalt Burn
SLR-Ok07 (ESB06)	H53218716	Owenkillev River upstream of un-named bridge on the Drumlea Road
SLR-Ok08	H59838548	Alworries Burn downstream of un-named road bridge
Owenreagh Catchment		
SLR-Or01	H61838072	Owenreagh River downstream of the Formil Bridge
SLR-Or02	H57818072	Cashel Burn downstream of un-named road bridge
SLR-Or03 (EBS09)	H58218214	Owenreagh River upstream of the Cashel Bridge
SLR-Or04	H58338340	Pollanroe Burn upstream of the Pollanroe Bridge
SLR-Or05 (EBS08)	H56168361	Owenreagh River downstream of the Aghnamirigan Bridge
SLR-Or06 (EBS07)	H53578587	Owenreagh River upstream of the Drumlea Bridge

### 2.2 Macroinvertebrate Sampling

Freshwater macroinvertebrates were collected from each of the 14 sampling stations on 12<sup>th</sup> June 2015, 16<sup>th</sup> August 2015, 26<sup>th</sup> October 2015 and 19<sup>th</sup> January 2016 in order to account for any seasonal variation in macroinvertebrate lifecycles.

All samples were collected using a standard methodology of three minutes of kick sampling/sweep netting of the habitats within the channel using a standard pond net (dimensions 230mm x 255mm, 275mm deep and a 1mm mesh) together with a 1 minute hand searching of stones, vegetation and other larger material present in the channel.

All collected material was placed into a white plastic tray and sorted by hand on site for any large and conspicuous organisms that were removed and placed into a labelled container with 70% ethanol. Any captured fish were returned to the watercourse. All large pieces of vegetation and debris were visually searched, washed clean of any invertebrates and discarded. The remaining contents of the tray were then returned to the net, draining off excess water, before being placed into a labelled container and preserved in 70% ethanol.

Each sample collected in the field was returned to the laboratory for sorting and identification. All major macroinvertebrate groups were recorded to family and species level wherever practically possible with the notable exceptions of the *Chironomidae* and *Oligochaeta* families.

### 2.3 Biological Water Quality Assessment

The biological assessment of water quality was made by using the Biological Monitoring Working Party (BMWP) biotic score system that separates invertebrate groups or taxa on the basis of their relative sensitivity to organic pollution with the more pollution sensitive taxa being allocated higher scores and the more pollution tolerant taxa lower scores. The BMWP score divided by the number of taxa represented produces an average pollution sensitivity of the macroinvertebrate community described by the Average Score per Taxon (ASPT).

Based on standard values, presented in Table 2, the BMWP scores and ASPT obtained from macroinvertebrate samples can be used to provide an assessment of biological water quality.

**Table 2: Biological Water Quality Assessment Criteria**

BMWP Score	BMWP Quality	ASPT	ASPT Quality
Over 100	A. Very good (unpolluted, unimpacted)	Over 5.4	Very Good
71 - 99	B. Good (clean but slightly impacted)	4.81 – 5.4	Good
41 - 70	C. Moderate (moderately impacted)	4.21 – 4.8	Fair
11 - 40	D. Poor (polluted or impacted)	3.61 – 4.2	Poor
0 – 10	E. Very poor (heavily polluted)	3.6 or less	Very Poor

### 2.4 Survey Personnel

The surveys and surveillance were led by Steve Judge MCIEEM an ecologist and employee of SLR who is highly experienced in carrying out biological water quality assessments.

## 2.5 Uncertainty of Data and Limitations

A number of aquatic macro-invertebrate larvae cannot be identified reliably beyond species group, genus or family level due to insufficient taxonomic information or that larvae of some species are too similar to be confident of identification. This applies to the larvae of Diptera (True Flies), early instar larvae of Trichoptera (caddisflies), and all the larvae and some females of many aquatic Coleoptera (water beetles).

It is considered that all due care and attention to the sampling, sorting and the identification of organisms has been made to ensure that all taxa collected are representative of the macroinvertebrate communities present at all the sites sampled at the time of the survey.

## 3.0 RESULTS

### 3.1 Contextual Information and Historical Records

Previous studies carried out by SLR to inform an Environmental Baseline Study commissioned by DGL as part of its exploratory works, included an assessment of biological water quality from 13 sampling stations, that included: six sites on the Owenkillev; three on the Owenreagh; and one site on each of the Coneyglen Burn, Glenlark Burn, Glenelly River and Rive Strule in 2012. Nine of these sites were used again as part of the 2015/16 round of sampling.

The survey found macroinvertebrate communities present in the watercourses consisting of common and widespread species typical of fast flowing rivers and streams with stoney substrates. No rare or notable species of invertebrate was recorded.

The results of the 2012 biological water quality assessment in reference to the sampling sites established are presented in Table 3.


**Table 3: Assessment of Biological Water Quality (SLR 2012)**




Sampling Site	BMWP	ASPT
EBS01 (SLR-Ok02)	Very Good	Very Good
EBS02 (SLR-Ok03)	Moderate	Very Good
EBS03 (SLR-Ok04)	Very Good	Very Good
EBS04 (SLR-Ok05)	Good	Very Good
EBS05 (SLR-Ok06)	Good	Very Good
EBS06 (SLR-Ok07)	Very Good	Very Good
EBS07 (SLR-Or03)	Very Good	Very Good
EBS08 (SLR-Or05)	Very Good	Very Good
EBS09 (SLR-Or04)	Very Good	Very Good
EBS10	Very Good	Very Good
EBS11	Good	Very Good
EBS12	Very Good	Very Good
EBS13	Good	Very Good

### 3.2 Habitat Description





A detailed description of each sampling site used for the collection of freshwater macroinvertebrates is provided in Table 4.

**Table 4: Description of Sampling Sites**

Sampling Site and Photograph	Description
<b>Owenkillow Catchment</b>	
<p>SLR-Ok01</p> 	<p><b><u>Owenkillow River Downstream of Monanameal Bridge</u></b></p> <p>A 7m wide section of river immediately downstream of Glenhull Bridge consisting of a series of riffles and runs with a consolidated substrate consisting of: cobbles 60%; gravels 35% and sand 5%. The site has a mean water depth of 50cm at normal flows with moderate turbidity with the water slightly discoloured by peat. A number of exposed shingle banks are exposed at low flows.</p> <p>The site supports no aquatic vegetation.</p> <p>The banks are largely dominated by tall grasses that open out to agricultural grasslands with a number of trees also present.</p>
<p>SLR-Ok02</p> 	<p><b><u>Owenkillow Downstream of Glenhull Bridge</u></b></p> <p>A 7m wide section of river immediately downstream of Glenhull Bridge consisting of a series of riffles and runs with a consolidated substrate consisting of: cobbles 60%; gravels 35% and sand 5%. The site has a mean water depth of 50cm at normal flows with moderate turbidity with the water slightly discoloured by peat. A number of exposed shingle banks are exposed at low flows.</p> <p>A small tributary joins the river at the downstream point of the station.</p> <p>The site supports no aquatic vegetation but has some patches of Reed Canary-grass (<i>Phalaris arundinacea</i>) growing along the marginal zone.</p>
<p>SLR-Ok03</p> 	<p><b><u>Coneyglen Burn Downstream of Coneyglen Bridge</u></b></p> <p>A 5m wide section of river immediately downstream of Coneyglen Bridge consisting of a series of riffles and runs with a consolidated substrate consisting of: small boulders 10%, cobbles 70%; gravels 15% and sand 5%. The site has a mean water depth of 50cm at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks typically support trees and shrubs that densely shade 25% of the channel that open out to agricultural grassland on the right bank and an area of scrub on the left bank that runs along Gorticashel Road.</p>

Sampling Site and Photograph	Description
<p>SLR-Ok04</p> 	<p><b><u>Owenkillew Downstream of Greenan Bridge</u></b></p> <p>A 13m wide section of river immediately downstream of Greenan Bridge consisting of a series of riffles and runs with a consolidated substrate consisting of: small boulders 10%, cobbles 70% and 20% gravels. The site has a mean water depth of 50cm at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks typically support trees and shrubs that densely shade the left bank but are more open on the right bank that opens out to agricultural grasslands.</p>
<p>SLR-Ok05</p> 	<p><b><u>Glenlark Burn Downstream of Glenlark Bridge</u></b></p> <p>A 5m wide section of river immediately downstream of Glenlark Bridge consisting of a series of riffles and runs with a consolidated substrate consisting of: small boulders 10%, cobbles 70%; gravels 15% and sand 5%. The site has a mean water depth of 50cm at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks have been artificially reinforced dominated by tall grasses with occasional shrubby trees that open out to agricultural grasslands.</p>
<p>SLR-Ok06</p> 	<p><b><u>Owenkillew Downstream of Confluence of the Curraghinalt Burn</u></b></p> <p>A 15m wide section of river immediately downstream of the confluence of the Curraghinalt Burn consisting of a series of riffles and runs with a consolidated substrate consisting of: small boulders 50%, cobbles 40% and gravels 10%. The site has a mean water depth ranging from 50cm to 1m at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks typically support trees and shrubs that densely shade the left and right bank and most of the channel that that opens out to agricultural grasslands.</p> <p>This location is directly downstream of the existing DGL discharge of treated water from and associated with underground exploration works under discharge consent 068/12/2 granted in February 2014.</p>

Sampling Site and Photograph	Description
<p>SLR-Ok07</p> 	<p><b><u>Owenkillev Upstream of Un-named Bridge on the Drumlea Road</u></b></p> <p>A 20m wide section of river upstream of an un-named road bridge and near to a ford consisting of a series of riffles and runs with a consolidated substrate consisting of: cobbles 50%, gravels 40% and sand 10%. The site has a mean water depth ranging from 50cm to 1m at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks are typically open adjoining agricultural grassland on the left bank and a small track leading to the ford on the right bank.</p>
<p>SLR-Ok08</p> 	<p><b><u>Alwories Burn Downstream of Un-named Bridge</u></b></p> <p>A small tributary of the Owenkillev flowing through a narrow steep valley with a 1m wide channel over largely bed rock with some loose cobbles and larger stones also present. A layer of ochre covers the bed.</p> <p>The banks are dominated by trees and shrubs except for a small open area dominated by tall rank grasses.</p>
<p>Owenreagh Catchment</p>	
<p>SLR-Or1</p> 	<p><b><u>Owenreagh River Downstream of Formil Bridge</u></b></p> <p>A 4m wide section of river immediately downstream of the Formil Bridge consisting of a run with a consolidated substrate consisting of: large boulders 5%, cobbles 60%, gravels 35% and sand 5%. The site has a mean water depth ranging from 30cm at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports a small patch of stream water-crowfoot (<i>Ranunculus penicillatus</i> ssp. <i>penicillatus</i>).</p> <p>The banks support tall grasses that open out to areas of agricultural grassland but with a line of coniferous trees along the top of the left bank.</p>
<p>SLR-Or2</p> 	<p><b><u>Cashel Burn Downstream of Road Bridge</u></b></p> <p>A 2.5m wide section of watercourse consisting of a series of riffles and pools and an unconsolidated bed of 100% gravels. The site has a mean depth ranging from 20cm to 50cm. Patches of floating sweet (<i>Glyceria fluitans</i>) and stream water-crowfoot are present in the channel.</p> <p>The banks are dominated by grasses that open out to agricultural grassland with some areas of mire adjacent to the right bank. The banks show some signs of erosion and bank collapse.</p>

Sampling Site and Photograph	Description
<p>SLR-Or3</p> 	<p><b><u>Owenreagh Upstream of the Cashel Bridge</u></b></p> <p>A 11m wide section of river immediately upstream of the Drumlea Bridge and downstream of the confluence of the Cashel Burn with the Owenreagh. The section consists of a run with a consolidated substrate that comprises: small boulders 30%, cobbles 40%, gravels 15% and sand 15%. The site has a mean water depth ranging from 10cm to 1m at normal flows with moderate turbidity with the water slightly discoloured by peat.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks support tall grasses that open out to areas of marshy grassland and marsh.</p>
<p>SLR-Or4</p> 	<p><b><u>Pollanroe Burn Upstream of the Pollanroe Bridge</u></b></p> <p>A 1m wide section of watercourse consisting of a series of riffles and a consolidated bed of: cobble 60%, gravels 30% and sand 10%. The site has a mean depth of 20cm. Ochre is evident but the levels vary considerably.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks are dominated by grasses that open out to agricultural grasslands with some scrub present on the right bank.</p> <p>This location represents the receiving watercourse and is downstream of the proposed infrastructure site discharge point, that forms part of the proposed gold mine development.</p>
<p>SLR-Or5</p> 	<p><b><u>Owenreagh Downstream of the Aghnamirigan Bridge</u></b></p> <p>A 11m wide section of river immediately downstream of the Aghnamirigan Bridge consisting a series of riffles and runs with a consolidated substrate consisting of: cobbles 20%, gravels 75% and sand 5%. The site has a mean water depth ranging from 25cm to 1m at normal flows with low turbidity with the water slightly brown in colour. A number of exposed shingle banks are exposed during low flows.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks support tall grasses that open out to agricultural grasslands.</p>
<p>SLR-Or6</p> 	<p><b><u>Owenreagh Upstream of the Drumlea Bridge</u></b></p> <p>A 10m wide section of river immediately upstream of the Drumlea Bridge consisting of a run with a consolidated substrate consisting of: small boulders 30%, cobbles 40%, gravels 15% and sand 15%. The site has a mean water depth of 75cm at normal flows with low turbidity with the water slightly brown in colour.</p> <p>The site supports no aquatic or marginal vegetation.</p> <p>The banks support tall grasses that open out to agricultural grasslands.</p> <p>A small discharge pipe is located in the left bank immediately upstream of the station that typically leaves a foam residue below the pipe.</p>

### 3.3 Biological Water Quality

The full results of the freshwater invertebrate taxa sampled along with their abundance and the BMWP score and ASPT for each of the individual sampling visits undertaken, plus a combined rating of all the samples obtained at each sampling site, is presented at Appendix A.

Table 5 presents a summary of the indicative biological water quality using the combined BMWP scores for all the samples taken from each individual sampling site during 2015/16. The results would indicate that the biological water quality of the Owenkillew River and its larger tributaries and the Owenreagh River ranges from good to very good in terms of both the BMWP scores and ASPT.

The BMWP score for the smaller tributaries was much lower than the main rivers and in the case of the Alwories Burn this also applied to the ASPT for the macroinvertebrates sampled.

**Table 5: Assessment of Biological Water Quality (SLR 2015 / 16)**

Sampling Site	BMWP	ASPT
Owenkillew Catchment		
SLR-Ok01	Good	Very Good
SLR-Ok02	Very Good	Very Good
SLR-Ok03	Good	Very Good
SLR-Ok04	Very Good	Very Good
SLR-Ok05	Good	Very Good
SLR-Ok06	Good	Very Good
SLR-Ok07	Very Good	Very Good
SLR-Ok08	Very Poor	Fair
Owenreagh Catchment		
SLR-Or01	Good	Very Good
SLR-Or02	Moderate	Very Good
SLR-Or03	Very Good	Very Good
SLR-Or04	Poor	Very Good
SLR-Or05	Very Good	Very Good
SLR-Or06	Very Good	Very Good

## 4.0 DISCUSSION OF RESULTS

The macroinvertebrate communities present in the watercourses consisted of common and widespread species typical of fast flowing rivers and streams with stoney substrates.

Overall the diversity and numbers of macroinvertebrates collected in the samples was low to moderate, particularly in the smaller tributaries. There was little variation in diversity, or abundance from the upstream and downstream sections of the Owenkillew and Owenreagh Rivers.

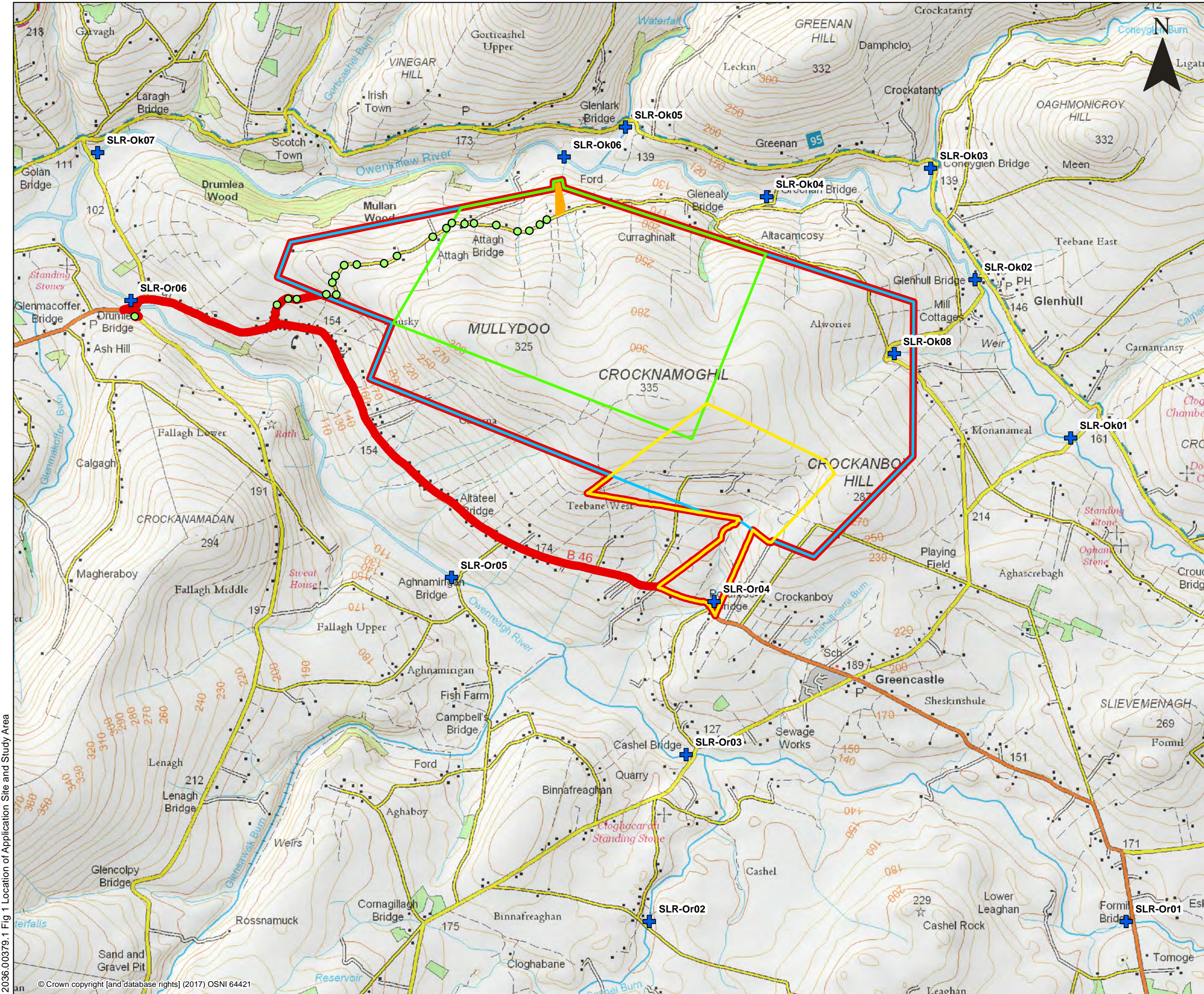
The survey found a number of organic pollution sensitive species with the highest associated BMWP scores of 10 including: Ephemeroptera (three families) and Plecoptera (four families) and Trichoptera (one family). This was down on the numbers previously recorded in 2012. It was noticeable during all the sampling visits that the river / stream beds were coated in a layer of silt with some algal growth, whereas in 2012 the bed material was clean. There are any number of reasons why this may have occurred but it is likely to be linked to the unseasonally wet spring and summer increasing nutrient levels and silt loading from surface water run-off in the Owenkillew and Owenreagh catchments. However, overall there does not appear to be any overall short-term deterioration in the biological water quality in these rivers.

In terms of the small tributary streams, sites of low to moderate invertebrate diversity will generally produce low BMWP scores. In terms of the Pollanroe Burn and the Alwories Burn these low scores are likely to somewhat reflect the instream habitat rather than being indicative of their biological water quality. However, by using the scores obtained for ASPT, which is considered a more reliable indicator of biological water quality, this would indicate “very good” biological water for the Pollanroe Burn but still only fair for the Alwories Burn.

In terms of the Alwories Burn it is considered that the high levels of ochre present in this watercourse and which is deposited on the bed is likely to be a contributing factor to the poor macroinvertebrate assemblage recorded during the sampling.

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## FIGURES



**LEGEND**

- APPLICATION BOUNDARY
- PROPOSED INFRASTRUCTURE SITE (AREA A)
- PROPOSED MINERAL EXTRACTION AREA (AREA B)
- EXISTING SURFACE INFRASTRUCTURE SITE (AREA C)
- PASSING BAYS ON CAMCOSY ROAD AND TURNING POINT ON LENAGH ROAD (AREA D)
- PROPOSED MINERAL EXPLORATION AREA (AREA E)
- + SAMPLING STATION

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CURRAGHINALT GOLD PROJECT,  
COUNTY TYRONE,  
NORTHERN IRELAND

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BIOLOGICAL WATER  
QUALITY ASSESSMENT

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**LOCATION OF APPLICATION SITE  
& STUDY AREA**

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**FIGURE 1**

Scale  
1:30,000 @ A3

Date  
SEPTEMBER 2017

2036.00379.1 Fig 1 Location of Application Site and Study Area

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## APPENDIX A

# Macroinvertebrate Sampling Results and Biological Water Quality Assessment

## SLR Ok01 Owenkillew (Monanameal Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	2	1	-	1	4
	Ephemeridae	<i>Ephemera danica</i>	10	3	-	-	-	3
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	7	9	3	8	27
		<i>Rhithrogena semicolorata</i>		6	3	-	-	9
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	3	3	2	1	9
	Perlodidae	<i>Isoperla grammatica</i>	10	3	2	-	-	5
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	-	-	1	3	4
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	2	2	3	4	11
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	7	2	3	6	15
Diptera (true flies)	Simuliidae	<i>Simulium sp.</i>	5	-	-	2	2	4
	Tipulidae	<i>Tipula sp.</i>	5	-	-	-	3	3
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	1	-	-	5	6
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	4	17	13	11	45
Diptera (true flies)	Chironmidae	<i>Chironmus sp.</i>	2	11	6	3	2	22
Oligochaeta (worms)	Ogliochaeta		1	8	2	2	1	13
Total No. of Taxa				12	10	9	12	15
BMWP Score				75	61	52	72	92
Total No. of Scoring Taxa				11	9	9	12	14
ASPT				6.81	6.78	5.77	6.00	6.57
Biological Water Quality (BMWP)				Good	Moderate	Moderate	Good	Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Ok02 Owenkillew (Glenhull Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	3	2	-	-	1
	Ephemeridae	<i>Ephemera danica</i>	10	2	2	3	-	5
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	1	16	3	8	25
<i>Rhithrogena semicolorata</i>				3	-	-	-	69
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	-	-	2	2	5
	Perlidae	<i>Perla bipunctata</i>	10	-	-	1	-	1
	Perlodidae	<i>Isoperla grammatica</i>	10	-	-	-	1	2
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	-	-	1	1	1
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	1	-	1	-	3
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	5	-	3	-	5
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	-	--	-	3	2
	Tipulidae	<i>Tipula</i> sp.	5	-	-	5	1	5
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	-	-	-	1	1
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	18	21	13	10	40
Mollusca (snails and bivalves)	Sphaeriidae	<i>Pisidium personatum</i>	3	1	-	1	-	1
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	12	3	-	-	19
Oligochaeta (worms)	Ogliochaeta		1	3	2	4	1	20
Total No. of Taxa				10	6	11	9	17
BMWP Score				51	37	72	59	105
Total No. of Scoring Taxa				9	6	11	9	16
ASPT				5.66	6.16	6.54	6.55	6.56
Biological Water Quality (BMWP)				Moderate	Poor	Good	Moderate	Very Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Ok03 Owenkillew (Coneyglen Burn)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	-	-	-	1	1
	Ephemeridae	<i>Ephemera danica</i>	10	2	-	-	1	3
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	-	-	-	4	17
	Leuctra	<i>Leuctra hippopus</i>	10	4	-	1	3	8
	Nemouridae	<i>Nemoura cinerea</i>	7	-	-	-	2	2
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	-	1	-	-	1
Diptera (true flies)	Simuliidae	<i>Simulium sp.</i>	5	-	-	-	2	2
	Tipulidae	<i>Tipula sp.</i>	5	-	-	-	1	1
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	2	-	-	-	2
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	7	4	8	6	25
Diptera (true flies)	Chironmidae	<i>Chironmus sp.</i>	2	-	2	-	-	2
Oligochaeta (worms)	Ogliochaeta		1	8	6	6	3	23
Hydracarina (water mites)	Arrenuidae	<i>Arrenurus sp.</i>	0	13	2	-	-	15
Total No. of Taxa				7	5	3	9	13
BMWP Score				30	12	15	62	74
Total No. of Scoring Taxa				6	4	3	9	12
ASPT				5.00	3.00	5.00	6.88	6.16
Biological Water Quality (BMWP)				Poor	Poor	Poor	Moderate	Good
Biological Water Quality (ASPT)				Good	Very Poor	Good	Very Good	Very Good

## SLR Ok04 Owenkillew (Greenan Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	2	-	2	3	7
	Ephemeridae	<i>Ephemera danica</i>	10	-	3	-	-	3
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	50	14	11	23	98
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	3	-	-	-	3
	Leuctra	<i>Leuctra hippopus</i>	10	-	-	3	2	5
	Perlidae	<i>Perla bipunctata</i>	10	1	-	-	-	1
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	1	-	-	-	1
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	6	5	7	3	21
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	2	1	3	1	7
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	2	-	-	3	5
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	2	-	-	9	11
	Tipulidae	<i>Tipula</i> sp.	5	-	-	-	2	2
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche angustipennis</i>	5	1	-	-	-	1
		<i>Hydropsyche siltalia</i>		4	6	3	2	15
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	6	8	11	7	32
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	2	-	1	-	2
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus</i> sp.	0	4	-	-	-	4
Total No. of Taxa				14	6	8	10	17
BMWP Score				71	42	54	69	106
Total No. of Scoring Taxa				12	6	8	10	15
ASPT				5.91	7.00	6.75	6.90	7.06
Biological Water Quality (BMWP)				Good	Moderate	Moderate	Moderate	Very Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Ok05 Owenkillew (Glenlark Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Heptageniidae	<i>Ecdyonurus dispar</i>	10	-	-	1	2	3
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	2	-	-	1	3
	Leuctra	<i>Leuctra hippopus</i>	10	-	-	-	1	1
Trichoptera (caddisflies)	Sericostomatidae	<i>Sericostoma personatum</i>	10	-	-	3	1	4
	Limnephilidae	<i>Limnephilus lunatus</i>	7	-	-	-	1	1
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	3	2	2	3	10
Coleoptera (beetles)	Dyticidae	<i>Hydroporus gyllenhalii</i>	5	1	-	-	-	1
	Elmidae	<i>Limnius volckmari</i>	5	3	2	-	-	5
Diptera (true flies)	Tipulidae	<i>Tipula sp.</i>	5	-	-	-	3	3
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	4	-	-	-	4
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	7	4	5	-	16
Total No. of Taxa				6	3	4	7	11
BMWP Score				36	16	31	59	78
Total No. of Scoring Taxa				6	3	4	7	11
ASPT				6.00	5.33	7.75	8.42	7.09
Biological Water Quality (BMWP)				Poor	Very Poor	Poor	Moderate	Good
Biological Water Quality (ASPT)				Very Good	Good	Very Good	Very Good	Very Good

## SLR Ok06 Owenkillew (Confluence of the Curraghinalt Burn)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	2	5	2	-	9
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	13	8	8	2	31
		<i>Rhithrogena semicolorata</i>		6	1	3	-	10
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	5	6	2	2	15
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	1	-	-	-	1
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	2	3	1	1	7
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	1	1	2	2	6
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	-	-	1	-	-
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	-	-	-	6	6
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche siltalia</i>	5	-	-	3	2	5
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	74	18	23	9	124
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	2	-	-	-	2
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus</i> sp.	0	3	-	-	-	3
Total No. of Taxa				10	7	9	7	13
BMWP Score				56	47	47	51	71
Total No. of Scoring Taxa				8	6	8	7	11
ASPT				7.00	7.83	5.87	7.28	6.45
Biological Water Quality (BMWP)				Moderate	Moderate	Moderate	Moderate	Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Ok07 Owenkillew (Un-named Bridge on Drumlea Road)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignite</i>	10	2	1	1	-	4
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	7	-	-	2	9
		<i>Rhithrogena semicolorata</i>		43	11	11	8	73
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	-	3	-	-	3
	Leuctra	<i>Leuctra hippopus</i>	10	-	4	1	-	4
	Perlidae	<i>Perla bipunctata</i>	10	3	1	-	-	4
	Perlodidae	<i>Isoperla grammatica</i>	10	1	-	-	-	1
	Nemouridae	<i>Nemoura cinerea</i>	7	1	-	-	-	1
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	-	2	-	2	4
	Polycentropodidae	<i>Polycentropus flavomaculatus</i>	7	-	-	1	-	1
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	2	5	4	3	14
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	-	1	1	1	3
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	-	1	1	-	2
Diptera (true flies)	Simuliidae	<i>Prosimulium</i> sp.	5	-	3	-	-	3
		<i>Simulium</i> sp.		-	-	4	7	11
	Tipulidae	<i>Dicranota</i> sp.	5	-	-	-	2	2
		<i>Tipula</i> sp.		-	-	-	1	1
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	83	61	14	13	171
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	1	2	-	-	3
Oligochaeta (worms)	Ogliochaeta		1	2	-	-	-	2
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus</i> sp.	0	2				2
Total No. of Taxa				11	12	9	9	21
BMWP Score				62	80	64	44	116
Total No. of Scoring Taxa				9	12	9	7	17
ASPT				6.89	6.67	7.11	6.28	6.82

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Biological Water Quality (BMWP)	Moderate	Good	Moderate	Moderate	Very Good
Biological Water Quality (ASPT)	Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Ok08 Owenkillew (Alwories Burn)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	-	-	-	2	2
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	11	3	5	4	23
Total No. of Taxa				1	1	1	2	2
BMWP Score				4	4	4	9	9
Total No. of Scoring Taxa				1	1	1	2	2
ASPT				4.00	4.00	4.00	4.50	4.50
Biological Water Quality (BMWP)				Very Poor	Very Poor	Very Poor	Very Poor	Very Poor
Biological Water Quality (ASPT)				Poor	Poor	Poor	Fair	Fair

## SLR Or01 Owenreagh (Formil Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	3	-	-	1	4
	Ephemeridae	<i>Ephemera danica</i>	10	5	-	-	-	7
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	4	1	1	8	14
		<i>Rhithrogena semicolorata</i>		12	3	1	-	16
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	-	4	-	1	5
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	-	-	1	3	4
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	4	3	2	4	13
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	2	1	1	1	5
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	-	-	2	2	4
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	4	3	-	2	7
		<i>Baetis scambus</i>		2	-	-	-	2
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	2	-	-	-	2
Oligochaeta (worms)	Ogliochaeta		1	3	1	2	3	3
Total No. of Taxa				10	7	7	10	13
BMWP Score				50	38	36	57	72
Total No. of Scoring Taxa				8	6	6	7	11
ASPT				6.25	6.33	6.00	8.14	6.54
Biological Water Quality (BMWP)				Moderate	Poor	Poor	Moderate	Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Or02 Owenreagh (Cashel Burn)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	2	2	-	-	4
	Heptageniidae	<i>Rhithrogena semicolorata</i>	10	2	2	-	-	4
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	2	-	-	-	2
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	157	139	201	184	681
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	-	-	-	2	2
Diptera (true flies)	Simuliidae	<i>Simulium sp.</i>	5	-	-	3	4	7
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	12	13	11	18	54
Isopoda (hoglouse)	Asellidae	<i>Asellus aquaticus</i>	3	2	-	3	2	7
Mollusca (snails)	Lymnaeidae	<i>Radix balthica</i>	3	4	3	3	2	12
Diptera (true flies)	Chironmidae	<i>Chironmus sp.</i>	2	7	2	2	-	11
Oligochaeta (worms)	Ogliochaeta		1	6	4	3	4	17
Total No. of Taxa				9	7	7	7	11
BMWP Score				50	36	24	27	59
Total No. of Scoring Taxa				9	7	7	7	11
ASPT				5.55	5.14	3.42	3.85	5.36
Biological Water Quality (BMWP)				Moderate	Poor	Poor	Poor	Moderate
Biological Water Quality (ASPT)				Very Good	Good	Very Poor	Poor	Very Good

## SLR Or03 Owenreagh (Cashel Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignite</i>	10	4	-	2	1	-
	Ephemeridae	<i>Ephemera danica</i>	10	-	2	1	-	-
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	2	2	4	-	2
<i>Rhithrogena semicolorata</i>		1		-	5	6	44	
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	-	-	3	3	3
	Leuctra	<i>Leuctra hippopus</i>	10	3	1	-	1	12
Trichoptera (caddisflies)	Lepidostomatidae	<i>Lepidostoma hirtum</i>	10	2	1	2	-	-
	Sericostomatidae	<i>Sericostoma personatum</i>	10	2	-	1	-	-
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	3	3	11	3	8
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	48	34	68	17	-
Mollusca (limpets)	Ancylidae	<i>Ancylus fluviatilis</i>	6	4	2	2	6	-
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	2	1	1	-	-
Diptera (true flies)	Simuliidae	<i>Simulium aureum</i>	5	3	-	-	-	-
		<i>Simulium sp.</i>		2	-	3	5	1
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	26	22	54	16	35
		<i>Baetis scambus</i>		3	-	-	-	4
Isopoda (hoglouse)	Asellidae	<i>Asellus aquaticus</i>	3	3	2	1	1	-
Mollusca (snails and bivalves)	Hydrobiidae	<i>Potamopyrgus antipodarum</i>	3	8	3	4	1	1
Total No. of Taxa				16	11	16	11	18
BMWP Score				89	74	99	74	109
Total No. of Scoring Taxa				13	11	15	11	15
ASPT				6.84	6.72	6.60	6.72	7.26
Biological Water Quality (BMWP)				Good	Good	Good	Good	Very Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Or04 Owenreagh (Pollanroe Burn)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Plecoptera (stoneflies)	Leuctra	<i>Leuctra hippopus</i>	10	1	-	-	-	1
Trichoptera (caddisflies)	Limnephilidae	<i>Potamophylax cingulatus</i>	7	-	-	-	2	2
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	11	5	8	7	31
Diptera (true flies)	Simuliidae	<i>Simulium</i> sp.	5	-	-	-	4	4
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	30	24	22	37	113
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus</i> sp.	0	3	-	-	-	3
Total No. of Taxa				4	2	2	4	6
BMWP Score				20	10	10	22	32
Total No. of Scoring Taxa				3	2	2	4	5
ASPT				6.67	5.00	5.00	5.50	6.4
Biological Water Quality (BMWP)				Poor	Very Poor	Very Poor	Poor	Poor
Biological Water Quality (ASPT)				Very Good	Good	Good	Very Good	Very Good

## SLR Or05 Owenreagh (Aghnamirigan Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignite</i>	10	12	2	-	-	14
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	1	1	-	-	2
		<i>Rhithrogena semicolorata</i>		8	12	3	4	27
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	2	-	-	-	2
	Leuctra	<i>Leuctra hippopus</i>	10	11	4	2	2	19
	Perlodidae	<i>Isoperla grammatica</i>	10	-	-	1	1	2
Trichoptera (caddisflies)	Lepidostomatidae	<i>Lepidostoma hirtum</i>	10	-	2	-	-	2
	Limnephilidae	<i>Potamophylax cingulatus</i>	7	1	-	-	3	4
	Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	2	3	3	3	11
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	11	9	15	12	47
Mollusca (limpets)	Ancylidae	<i>Ancylus fluviatilis</i>	6	2	1	-	1	4
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	3	1	1	1	6
Diptera (true flies)	Simuliidae	<i>Prosimulium hirtipes</i>	5	-	-	-	7	7
	Tipulidae	<i>Dicranota sp.</i>	5	-	-	-	2	2
		<i>Tipula sp.</i>		-	-	3	3	6
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	14	9	2	2	27
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus sp.</i>	0	7	3	-	-	10
Total No. of Taxa				12	11	8	12	17
BMWP Score				85	68	55	75	105
Total No. of Scoring Taxa				10	9	8	11	14
ASPT				8.50	7.55	6.87	6.81	7.50
Biological Water Quality (BMWP)				Good	Moderate	Moderate	Good	Very Good
Biological Water Quality (ASPT)				Very Good	Very Good	Very Good	Very Good	Very Good

## SLR Or06 Owenreagh (Drumlea Bridge)

Order	Taxonomic Family	Species	BMWP	12/06/15	26/08/15	26/10/15	19/01/16	Combined
Ephemeroptera (mayflies)	Ephemerellidae	<i>Seratella ignita</i>	10	-	3	-	-	3
	Heptageniidae	<i>Ecdyonurus dispar</i>	10	-	2	-	-	3
		<i>Rhithrogena semicolorata</i>		12	3	2	2	19
Plecoptera (stoneflies)	Chloroperlidae	<i>Chloroperla torrentium</i>	10	-	-	1	1	2
	Leuctra	<i>Leuctra hippopus</i>	10	2	-	3	2	7
Trichoptera (caddisflies)	Lepidostomatidae	<i>Lepidostoma hirtum</i>	10	1	-	2		3
	Sericostomatidae	<i>Sericostoma personatum</i>	10	-	-	-	3	3
	Limnephilidae	<i>Limnephilus lunatus</i>	7	5	-	-	-	5
		<i>Potamophylax cingulatus</i>		1	-	-	-	1
Rhyacophilidae	<i>Rhyacophila dorsalis</i>	7	2	2	2	3	9	
Amphipoda (shrimps)	Gammaridae	<i>Gammarus duebeni</i>	6	2	3	1	1	7
Mollusca (limpets)	Ancylidae	<i>Ancylus fluviatilis</i>	6	-	1	1	1	3
Coleoptera (beetles)	Dyticidae	<i>Nebrioporus depressus</i>	5	2	-	-	-	2
Coleoptera (beetles)	Elmidae	<i>Limnius volckmari</i>	5	1	1	1	1	4
Diptera (true flies)	Tipulidae	<i>Dicranota</i> sp.	5	-	-	3	-	3
		<i>Tipula</i> sp.		-	-	-	2	2
Trichoptera (caddisflies)	Hydropsychidae	<i>Hydropsyche instabilis</i>	5	1	1	-	-	2
Ephemeroptera (mayflies)	Baetidae	<i>Baetis rhodani</i>	4	22	21	7	11	61
Isopoda (hoglouse)	Asellidae	<i>Asellus aquaticus</i>	3	-	1	1	2	4
Mollusca (snails)	Lymnaeidae	<i>Radix balthica</i>	3	-			1	1
Diptera (true flies)	Chironmidae	<i>Chironmus</i> sp.	2	2	-	-	-	2
Oligochaeta (worms)	Ogliochaeta		1	2	1	3	2	8
Hydracarina (water mites)	Arrenuridae	<i>Arrenurus</i> sp.	0	5	-	-	-	5
Total No. of Taxa				14	11	12	13	23
BMWP Score				72	57	77	80	119
Total No. of Scoring Taxa				12	10	12	13	19
ASPT				6.00	5.70	5.92	6.15	6.26

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Biological Water Quality (BMWP)

Good	Moderate	Goode	Good	Very Good
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Biological Water Quality (ASPT)

Very Good	Very Good	Very Good	Very Good	Very Good
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