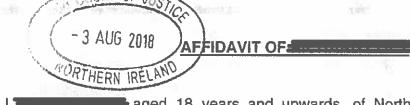
#### IN THE COURT OF JUDICATURE IN NORTHERN IRELAND

#### QUEEN'S BENCH DIVISION (JUDICIAL REVIEW)

IN THE MATTER OF AN APPLICATION BY FOR JUDICIAL REVIEW

AND IN THE MATTER OF A DECISION OF THE DEPARTMENT FOR AGRICULTURE, ENVIRONMENT AND RURAL AFFAIRS

DATED 29<sup>TH</sup> SEPEMBER 2017



Agency, Water Management Unit, 17 Antrim Road, Lisburn, BT28 3AL make oath and say as follows:

#### introduction

- 1. I am a Senior Scientific Officer within the Northern Ireland Environment Agency ("NIEA"), an agency within the Department of Agriculture, Environment and Rural Affairs ("the Department"). The Department made the decision to issue a water discharge consent, which is the subject of this challenge. I have particular responsibility for the performance by the Department of its functions under the Water Order 1999 and the regulation of discharges both to freshwater and marine environment. I am authorised to make this affidavit on behalf of the Respondent in response to this judicial review challenge. I make this affidavit from my knowledge and understanding of the matters set out below and from examining the documents and records held by the Department.
- 2. This is the first affidavit I have made in these proceedings. I confirm that I have considered the affidavits filed by

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- 3. I refer throughout to a bundle of documents exhibited hereto and marked "RC1" by me at the time of swearing hereof.
- 4. I was responsible for making the decision to issue the discharge consent which is the subject of these proceedings, on behalf of the Department.
- 5. I have received professional training in River Quality Planning- Setting Consents and Assessing Performance. The software used is known as "Monte Carlo". I refer to a copy of my training certificates as appear at Tabs 1 and 2 of the bundle.
- 6. In Victorian England the disposal of liquid waste in waterways and the associated pollution resulted in a Royal Commission being established in 1898 for the purpose of addressing how this method of disposal might be regulated. At that time local authorities were given responsibility for managing the treatment and disposal of sewage and industrial waste. I refer to a copy of the Wikipedia entry at Tab 3 of the bundle.
- 7. The final report of the Royal Commission published in 1915 gives a summary of the 9 previous reports leading to the final decisions. The summary of the Eighth Report (1912) establishes the principle of dilution as a method of controlling the impact of discharging liquid effluent/waste water in waterways. I refer to a copy of the Royal Commission Final Report on Sewage Disposal 1915 at **Tab 4** of the bundle. Page 11, paragraph 2 from the summary of the Eighth Report identifies a specific relationship between the available dilution provided by the receiving waterway and the volume of effluent for discharge.
- 8. The Report also provided the foundation for the concepts of discharge standards (concentrations) and link these to the available dilution and the appropriate treatment before discharge which are summarised on page 11, paragraph 7.
- 9. Although it was primarily sewage effluent which was considered by the Royal Commission, the issue of disposal of industrial effluent in waterways, including

mining and quarrying effluents, was addressed by the Ninth Report which is referred to in the Final Report on page 3 paragraph 4 (Tab 4).

- 10. Page 13 paragraph 6 of the Final Report recognises that "complete purification" for trade effluents is unrealistic and that it is more useful to establish "limits of impurity" which are considered acceptable.
- 11. The principles of discharge as a method of disposal, dilution to reduce polluting impact, appropriate effluent treatment before discharge and discharge standards to protect the environment, all established by the Royal Commission, have been applied since the Final Report was published in 1915.
- 12. The current legislation regulating discharges of this type in Northern Ireland is the Water (Northern Ireland) Order 1999. The legislation continues to apply the key principles established by the Royal Commission. The discharge of effluent into waterways is prohibited unless made pursuant to and in accordance with a consent granted by the Department, which may be the subject of conditions. The powers under the 1999 Order were previously conferred upon the Department of the Environment ("DOE") and were transferred to DAERA, following the dissolution of the DOE in 2016.
- 13. The Department's power to grant a water discharge consent is contained in Articles 7(2) & 7A(3) of the 1999 Order which provide in relevant part as follows:
  - "7(2) Subject to the following provisions of this Part, a person commits an offence if, by any means whatsoever, he makes any discharge of any trade or sewage effluent —
  - (a) into a waterway or water contained in any underground strata"
  - "7A(3) A person shall not be guilty of an offence under Article 7(1) or (2) or (6) in respect of the discharge or deposit of any effluent or other matter if the discharge or deposit is made in accordance with, or as a result of any act or omission under and in accordance with –

- 14. In addition to the Department's power to grant consent to discharge effluent it also has power to review a consent or its conditions. It can review a consent of its own motion or upon request and has power to revoke the consent, impose conditions or modify the existing consent [Schedule 1, Para 5 of 1999 Order].
- 15. The current procedure for processing duly made applications for discharge consents of this nature is comprised of the following stages:
  - Stage 1 Receipt of consent application form which NIEA will check for completeness.
  - Stage 2 Application sent out to bodies for consultation.

Habitats Regulations requirements consideration as required.

Stage 3 - Advertising of consent application in local newspapers.

Stage 4 – Application can be refused or withdrawn. If so, process finishes at this stage.

Stage 5 – Draft consent conditions (DCC's) are drawn up and sent for consultation.

Stage 6 – NIEA consider consultation comments. DCC's then sent to applicant with form to be signed accepting proposed conditions.

Stage 7 – On acceptance of DCC's from applicant final consent will be generated and forwarded to applicant.

- 16. Stage 5 includes the preparation of the draft consent and is the stage where the key principles, originally established by the Royal Commission, are applied. Account is taken of the concentration of the effluent and the dilution available and these, in combination with the targets for the waterway, are used to establish the discharge standards (concentrations).
- 17. In addition to the regulation of discharge effluents by the Water (NI) Order 1999, the overall quality of receiving waterways is regulated by the Water Framework Directive ("WFD"), which has been transposed in Northern Ireland by the Water

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Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015 ("the WFD Regulations"). The Directive and WFD Regulations prescribe maximum permitted concentration levels for specific substances within waterways. The regulated substances include compounds of each of the heavy metals which are identified by the Applicant in these proceedings. The relevant provisions of the WFD or the WFD Regulations do not regulate discharge activity, nor the concentrations of discharge effluents into rivers and waterways, rather they prescribe certain minimum purity standards within the receiving waterways, irrespective of the source of any particular impurity.



18.I have set out below a response to each of the grounds upon which leave was granted by this Court.

## Procedural history of Consent 068/12/3

- 19. Discharge Consent 068/12/3 which is challenged by the Applicant in this case is the third consent which has been issued by the Department authorising the discharge of effluent at this location in connection with exploration activities currently being carried on by Dalradian Gold Ltd at Curraghinalt, Gortin, Co Tyrone. A consent has been in place continuously since 2 July 2012 and its conditions have been the subject of review and modification on two occasions. The decision under challenge is therefore not a decision to issue a fresh consent, rather to review and to modify the conditions of a pre-existing consent.
- 20.A consent was first granted by the DOE (NIEA, Water Management Unit) on 2 July 2012. It was granted following an application by Dalradian Gold Ltd on 7 March 2012 to discharge drainage from an underground exploratory adit of its operations at Curraghinalt, Gortin, Co Tyrone into the Curraghinalt Burn. A copy of this application and the subsequent consent no 068/12 dated 2 July 2012 are contained at **Tabs 5 and 6** of the bundle.

- 21.On 31 May 2013, NIEA received an application from Dalradian Gold Ltd to review consent no 068/12, to reflect the fact that it wished to incorporate surface water drainage into the consented discharge. A copy of the application as appears at **Tab 7** of the bundle.
- 22. In parallel with this application for a review, Dalradian Gold Ltd also applied to the DOE for planning permission for an extension of its underground exploration activities. The scope of the activities covered by the planning application included the discharge of effluent into Curraghinalt Burn. It is a tributary of the Owenkillew River, which in turn has been designated as a Special Area of Conservation ("SAC") under the Habitats Directive, Inter alia, in relation to its population of fresh water pearl mussels. The issue of effluent discharge into the Curraghinalt Burn was therefore considered as part of the planning application. On November 2013 the then DOE completed an appropriate assessment of the effects of the development, in consultation with the NIEA. This included an assessment of the effects of any discharge upon the Owenkillew SAC, for which the NIEA Natural Heritage Division had the lead. The work required to be undertaken by the Department for the purposes of the appropriate assessment therefore required all of the same work as was required in order to determine the application to review the 2012 discharge consent. As part of its role as consultee in the planning application, the Natural Heritage Division of NIEA also provided draft conditions related to any discharge activities, and included recommendations for conditions dealing with maximum concentrations of, inter alia, suspended solids within the receiving waterway. These draft conditions were submitted to planning colleagues, without the knowledge of NIEA officials in Water Management Unit.
- 23. Planning permission for the extension of Dalradian's exploration activities was granted on 22 January 2014, which contained two conditions (25 and 26) relating to maximum permitted concentrations of suspended solids in the receiving waterway (<10mg/l). The recommendation by NIEA NED for this condition was based upon the content of the Department's Sub Basin Management Plan for the Owenkillew River. It includes a recommendation that water monitoring spot checks should take place in those waterways after

periods of heavy rain and that suspended solid concentrations should be <10mg/l. This guidance applies to the concentration levels for the Owenkillew River system as a whole and does not apply to suspended solid concentration levels within permitted discharge effluents. A copy of planning permission K/2013/0072/F is contained at **Tab 8** of the bundle.

- 24.On 6 February 2014, the NIEA, Water Management Unit determined Dalradian's application to review the discharge consent. It granted a further consent, with modified conditions. Condition 1(a) also prescribed a maximum concentration of suspended solids (50mg/l), which related to the concentration within the discharge effluent, rather than the receiving waterway. A copy of the revised consent is contained at Tab 9 of the exhibits.
- 25.On 26 February 2014, NIEA Water Management Unit was contacted by Dalradian who highlighted the differences between condition 1(a) of the revised discharge consent and condition 25 of the planning permission relating to suspended solid concentrations within the discharge effluent and the receiving waterway. Dalradian was also concerned about a lack of clarity within condition 26 of the planning permission about the location at which water quality monitoring should take place. Following meetings and discussion between planning officials and NIEA officials from Water Management Unit & Natural Environment Division, it was established that a concentration of 50mg/l of suspended solids within discharge effluent was consistent with a concentration of 10mg/l in the waterway downstream of the discharge. It was also agreed that planning condition 26 was inappropriate, as it required Dalradian to cease operations if the specified concentrations within the receiving river reached certain levels, irrespective of the source of the contaminant. It was decided that it was more appropriate for these issues to be addressed by means of condition within a discharge consent rather than planning condition. The Department's power to review a discharge consent also provided it with greater flexibility over its regulation and enforcement powers, as compared with a planning permission.

- 26. This ultimately led to Dalradian making an application on 22 May 2014 for permission not to comply with conditions 25 and 26 of permission K/2013/0072/F. A fresh planning permission was granted by the DOE on 31 March 2015, authorising an extension of the underground exploration activities, but without conditions 25 and 26. A copy of this permission is contained at **Tab** 10 of the bundle.
- 27.In March 2016, as a result of routine water quality monitoring by NIEA of the discharge effluent, it noted an exceedence of the zinc concentration levels authorised by the 2014 discharge consent. Further zinc exceedences were detected in January and February 2017 and NIEA issued an Enforcement Notice to Dalradian. Dalradian responding by bringing to the attention of the NIEA that since the 2014 consent had been issued, the 2015 Regulations had introduced changes in the Environmental Quality Standards for permitted zinc concentrations, distinguishing between dissolved and non-dissolved zinc compounds. On 20 April 2017, Dalradian therefore made an application to NIEA to review the conditions on the February 2014 discharge consent. A copy of that application is contained at **Tab 11** of the bundle. It was as a result of this request, that the NIEA ultimately issued the revised discharge consent 068/12/3 which is the subject of challenge. A copy of the impugned consent and associated maps are contained at **Tab 12** of the bundle).
- 28. The 2014 consent contained a condition relating to zinc in the following terms:
  - "1. The effluent discharged to the waterway shall not.....(d) total zinc shall not exceed 33.8ug/l."
- 29. The impugned 2017 consent contains the following condition relating to zinc:
  - "1. The effluent discharged to the waterway shall not....(d) dissolved zinc shall not exceed 490ug/l. This equates to a site specific Bioavailable concentration of 111ug/l"
- 30. This procedural history is of most importance to the ground of challenge under the Habitats Directive. A full response to that ground and the other grounds of challenge is set out below.

Ground (i) The decision is unreasonable and unlawful in that it affords discharge amount in excess of the maximum limits set down in respect of a priority substance and specific pollutants in the Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015

31. The standards which have been set on discharge consent no. 068/12/3 have been formulated by the Department to ensure that Environmental Quality Standards for regulating the concentration of priority substances within the surrounding waterways will not be exceeded as a result of the discharges which Dalradian has been authorised to make. In accordance with the conditions of the discharge consent which have been in place since 2012 and also the Department's obligations under the 2015 Regulations, both the discharge effluent and the receiving waterway have been and will continue to be, monitored by the Department. To date, this monitoring has not detected any impact on water quality in the Owenkillew River as a result of this discharge.

## (a) Methodology for formulation of conditions governing discharge effluent.

- 32. Discharge consent conditions which prescribe maximum concentrations of specific substances are formulated using mass balance modelling software to ensure that the discharge can be sustained by the receiving waterway without damage to the aquatic environment and without breaching national or EU Directive standards. The principle of mass balance modelling is explained below.
- 33. The Department uses software called "Monte Carlo" which models discharges of this type and can make predictions, to a high degree of accuracy, about the effect of the discharge in the receiving waterway. The software operator enters the volume of flow for the receiving waterway, the daily effluent volume and concentration and the software calculates the resultant concentration in the receiving waterway, taking into account the dilution available. The software will

repeat the calculations many times, taking account of the perceived seasonal variations in flow and lowest likely flow, when the smallest dilution is available.

34. The mixing of a discharge with a river is described by a Mass Balance Equation.

The equation is described as follows:

$$T = (FC + fc)/(F + f)$$

Where:

T = concentration of parameter in river after mixing

F = river flow

f = discharge flow

C = concentration of parameter in upstream river

c = concentration of parameter in discharge

- 35. The method used to allow the correct calculation of mean and percentile values of T and the discharge quality needed to achieve river targets is known as Combining Distributions because it combines the distributions of F, C, f and c to produce the distribution of T. This is achieved using the computer based Monte Carlo Simulation.
- 36.In Monte Carlo Simulation, a value for each of the variables F, C, f and c is plucked randomly from the full range of possible variables. A value for T is calculated from each set of values of F, C, f and c using the above equation. The sequence of random selection and mass balance is repeated until enough values of T have been calculated to define its distribution. Each value of T (or each value of F, C, f and c) is called a Shot. Typical calculations have 500 Shots.
- 37. The standard assessment methodology involves assessing river quality data as a 90 percentile and discharge data as a 95 percentile. A 90 percentile concentration indicates the concentration that is not exceeded in the waterway for 90 percent of the time. Accordingly, a 95 percentile concentration in a

discharge indicates the concentration that is not exceeded for 95 percent of the time. The difference in approach is due to the fact that it is more likely that a larger volume of data is available for discharge quality data than river quality data. Accordingly a higher percentile figure is used for discharge compliance as the more data is available, the higher the confidence that the range of data obtained is reflective of the true variability of the nature of the discharge. This approach is standard practice for consent modelling across the UK environmental regulators.

- 38. To calculate the discharge standard needed to achieve a 90 percentile river quality standard, the computer software compares the river quality target with the 90 percentile value of the calculated distribution of T, i.e. it will calculate the discharge standard required to allow the downstream river quality target to be met. The discharge standard is typically set as a 95 percentile concentration.
- 39. The data used to input to the Monte Carlo model is based on sampling data. Sampling data is a snapshot in time of either discharge or river quality, and given sampling rates (2-3 times annually for river samples, 4-12 samples annually for discharge samples) it is extremely unlikely that a maximum concentration for any particular parameter will be captured in a sampling event. A concentration is therefore required which gives a more useful indicator of the need to act. This is achieved by using a percentile concentration. It is a more restrictive limit than that which would be set as an absolute standard.
- 40. The Monte Carlo calculations are repeated by the model until the discharge quality distribution is found which gives the required river quality distribution.
- 41. The Monte Carlo method requires data which describes the distributions of the variables in the above equation. Each distribution can be fully defined using two statistics. These are as follows:

River flow (F)

Mean (average river flow)

Q95 (low flow (flow which is exceeded in the river

for 95% of the time)

River Quality (C)

Mean (average concentration)

Standard Deviation\*

Discharge flow (f)

Mean (average discharge flow)

Standard Deviation\*\*

Discharge Quality (c)

Mean (average concentration)

Standard Deviation\*

\* a value expressing the statistical variability of the data in relation to the meandescribes the range of input data.

\*\*For discharge flows, standard deviation is assumed to be one third of the average flow.

- 42. Using the summary input statistics above, the Monte Carlo model calculates variations in river and effluent flows and concentrations to predict the impact on the river and generate suitable consent conditions.
- 43. When consent conditions are being drawn up, account is taken of:
  - the composition and volume of the proposed discharge;
  - the water quality target for the receiving water;
  - the existing quality of the receiving water;
  - · available dilution; and
  - the requirements of the relevant water quality legislation/regulations, in this case the WFD Regulations referred to above.
- 44. When drafting discharge conditions, the maximum permitted concentration of a particular substance within the discharge effluent will frequently be greater than that prescribed by the relevant Environmental Quality Standard within the WFD Regulations. The reason is that EQSs prescribe concentration levels within the

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receiving surface water (in this case the Owenkillew River). The mass balance modelling undertaken by NIEA as part of the consent assessment process has demonstrated that the permitted concentrations set for discharge effluents, if complied with, will not give rise to a breach of the applicable EQSs or the requirements of the WFD Regulations, thus ensuring full compliance with these Regulations, and allowing the legislative requirements to be observed.

45. The priority substances modelling for consent no. 068/12/3 is explained below.

## (b) Discharge Consent 068/12/03

- 46. Discharge consent no 068/12/3 relates to a discharge of site drainage from an underground exploratory adit at Curraghinalt, near Gortin. The drainage from the mine is treated on site by a wastewater treatment plant, prior to discharge. The treated effluent then discharges into the Curraghinalt Burn at IGR H 5707 8690. The Curraghinalt Burn subsequently flows into the Owenkillew River, a designated Special Area of Conservation (SAC) under the Habitats Directive, approximately 200m from the consented discharge point. A copy of discharge consent 068/12/03 is already exhibited at Tab 12 of the bundle.
- 47. For each of the substances listed on the discharge consent which is the subject of a maximum permitted concentration, a two stage modelling process was carried out using the Monte Carlo software and modelling procedure described above. First, the discharge of treated effluent from the mine into the Curraghinalt Burn was modelled. The results of this modelling produced a predicted flow and concentration of each parameter within the Curraghinalt Burn downstream of the discharge point. A second model was then prepared in relation to the effects of the Curraghinalt Burn discharging into the Owenkillew River. By this process, it was possible to determine the effects of the discharge from the mine upon the water quality parameters within the SAC.
- 48. There are five metals on the discharge consent which require regulation to ensure compliance with water quality standards within the Owenkillew SAC.

These are zinc, copper, cadmium, mercury and iron. As set out above, the EQS for zinc and copper which are specified in the 2015 Regulations reflect revisions to the standards which were made following further scientific research upon the different effects upon aquatic life of dissolved and non-dissolved compounds of the metals. The WFD 2015 Regulations superseded The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011 (The 2011 Regulations), in which the EQS for zinc was set as a Total concentration, and that for copper was set as a Dissolved concentration.

49. When carrying out the modelling necessary for the review of this discharge permit, the following generic input data was used, in accordance with the data input requirements explained above:

Owenkillew River: Mean Flow

385517

Q95

57283

Curraghinalt Burn: Mean Flow

1355

Q95

432

The applicable hydrology report is at **Tab 13** of the bundle.

Discharge data:

Mean Flow

842

Standard Deviation 281

I refer to Annex 2 paragraph 2 (i) of the application for consent no 068/12/3 dated 20 April 2017 which is contained at Tab 11 of the bundle.

50.All flows are expressed as cubic metres per day. The River flow figures used were those held by the Water Management Unit of NIEA (Hydrology Team). Discharge flow data was supplied by Dalradian Gold as part of the discharge consent application.

- 51. For the modelling of the discharge into the Curraghinalt Burn, the Curraghinalt Burn flow data was used for the river flow input data. The Dalradian discharge data was used for the discharge flow input data.
- 52. For the modelling of the subsequent discharge of the Curraghinalt Burn into the Owenkillew River, the Owenkillew River flow data was used for the river flow input data. In this case, the discharge flow in question is a combination of the Dalradian discharge data into the Curraghinalt Burn and the existing flow in the Curraghinalt Burn, therefore these two flows were combined to provide the discharge flow input data, as follows:

Combined Curraghinalt Burn and Dalradian Discharge into Owenkillew River:

Mean Flow 1355 + 842 = 2197

Standard deviation = 2197/3 = 732

- 53. The Data used in the calculations was taken from the results of monitoring at the following river quality monitoring stations which are identified on the map contained at **Tab 14** of the bundle:
  - (a) Departmental Owenkillew upstream monitoring station at Monanmeal Bridge (IGR H 614 848), approximately 6 km upstream from confluence of Curraghinalt Burn with Owenkillew River;
  - (b) Dalradian surface water monitoring station SW02, located at IGR H 5712 8666) in the Curraghinalt Burn approximately 270m upstream of the consented discharge point.
  - (c) Dalradian surface water monitoring station DCS1, located immediately upstream of the discharge point.

#### **Condition Regulating Zinc Concentration**

54. The 2015 Regulations stipulate a Bioavailable EQS for zinc of 11.9 ug/l.

Bioavailability of zinc is dependent on the concentration of other specific

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parameters within the water column, namely Dissolved Organic Carbon, pH and Calcium. The bioavailability calculation is carried out using the Metal Bioavailability Assessment Tool (MBAT). This tool has been developed by the Water Framework Directive- United Kingdom Technical Advisory Group (WFD-UKTAG).

- 55. In its application Dalradian Gold proposed a zinc discharge concentration limit of 490 ug/l (dissolved). Using the Monte Carlo modelling software the Department assessed the impact of this proposal on the Owenkillew River.
- 56. The results of Departmental monitoring indicate that the 90 percentile concentration of dissolved zinc in the Owenkillew, upstream of the confluence with the Curraghinalt Burn, into which the discharge is made, is 9.13 ug/l. I refer to a copy of the Departmental monitoring data as appears at **Tab 15** of the bundle. Modelling indicates that, with a 490 ug/l concentration in the discharge, the concentration of dissolved zinc in the Owenkillew downstream of the confluence with the Curraghinalt Burn is predicted to be 10.56 ug/l. This is a consequence of the cumulative dilution provided by both the Curraghinalt Burn and the Owenkillew River. This downstream dissolved concentration, when assessed using the MBAT tool referred to above, results in a bioavailable zinc concentration of 2.39 ug/l, well within the EQS for zinc of 11.9 ug/l.

## Condition Regulating Copper Concentration

- 57. The WFD Regulations 2015 also introduced a revised EQS for copper, different to that which applied (under the WFD 2011 Regulations) when the Dalradian discharge consent was last reviewed in 2014. They now stipulate a bioavailable EQS for copper of 1 ug/l. The previous Dalradian discharge consent issued on 6 February 2014, had a limit of 16.2 ug/l (dissolved).
- 58.As with zinc the bioavailability of copper is dependent on the concentration of other specific parameters within the waterway, namely Dissolved Organic Carbon, pH and Calcium. The bioavailability calculation is carried out on the

dissolved concentration of the metal. Therefore for regulatory purposes the dissolved fraction is analysed and the bioavailability calculation carried out afterwards. Discharge consent modelling is therefore undertaken using dissolved concentrations and the predicted downstream concentration is then subject to the bioavailability calculation to determine whether or not the bioavailable EQS will be complied with (using the MBAT tool as described above).

59. As part of the discharge consent review process, NIEA undertook a review of the previous two year's copper consent compliance data. The relevant data for the period February 2015 - March 2017 is at Tab 16 of the bundle. A two stage Monte Carlo model was undertaken on the predicted impact of the copper concentration on the Owenkillew downstream of the confluence with the Curraghinalt Burn. Monitoring data supplied by Dalradian Gold indicated that the 90 percentile concentration of dissolved copper in the Curraghinalt Burn upstream of the Dalradian discharge was 2.72 ug/l. A copy of SW02 monitoring data as appears at Tab 17 of the bundle. The results of Departmental monitoring indicates that the 90 percentile concentration of dissolved copper in the Owenkillew upstream of the confluence with the Curraghinalt Burn into which the discharge is made, is 1.75 ug/l. A copy of the Departmental monitoring data is at Tab 15 of the bundle. Modelling indicates that, with a 15.05 ug/l concentration in the discharge, the concentration of dissolved copper in the Owenkillew downstream of the confluence with the Curraghinalt Burn is predicted to be 1.76 ug/l. This is a consequence of the cumulative dilution provided by both the Curraghinalt Burn and the Owenkillew River. This downstream figure, when assessed using the MBAT tool, results in a bioavailable copper concentration of 0.04 ug/l, below the EQS of 1 ug/l.

60. As a result of the review, the NIEA therefore considered that the existing consent condition for dissolved copper did not require amendment.

## **Condition Regulating Cadmium Concentration**

- 61. The EQS for cadmium was not changed by the 2015 WFD Regulations. Modelling using the previous two year's compliance data was considered, however on every occasion that the discharge has been sampled for cadmium, a "less than" (undetectable using NIEA laboratory monitoring methods) has been recorded, therefore modelling was undertaken using the existing consent condition of 0.7 ug/l dissolved cadmium.
- 62. A two stage Monte Carlo model was undertaken on the impact of this 0.7 ug/l consent condition on the Owenkillew downstream of the confluence with the Curraghinalt Burn. Monitoring data supplied by Dalradian Gold indicated that the 90 percentile concentration of dissolved cadmium in the Curraghinalt Burn upstream of the Dalradian discharge was 0.59 ug/l. I refer to a copy of DCS1 monitoring data at **Tab 18** of the bundle. The results of Departmental monitoring indicates that the 90 percentile concentration of dissolved cadmium in the Owenkillew upstream of the confluence with the Curraghinalt Burn into which the discharge is made, is 0.04 ug/l. I refer to a copy of the Departmental monitoring data at **Tab 15** of the bundle.
- 63. Modelling indicates that, with a 0.7 ug/l concentration in the discharge, the concentration of dissolved cadmium in the Owenkillew downstream of the confluence with the Curraghinalt Burn is predicted to be 0.05 ug/l. This downstream figure is below the EQS of 0.45 ug/l. The Department therefore considered that the existing consent condition of 0.7 ug/l dissolved cadmium did not require any amendment as a result of the review.

## **Condition Regulating Mercury Concentration**

64. The EQS for mercury has not changed as a result of the change from the 2011 to 2015 Regulations. NIEA undertook a review of the previous two year's mercury compliance data on the discharge consent (I refer to a copy of the compliance data for the period February 2015 – March 2017 as appears at Tab 16 of the bundle). This review demonstrated that the 95 percentile concentration over the past two years was 0.02 ug/l (in itself below the EQS of 0.07 ug/l set for mercury in the 2015 Regulations).

- 65. Again, a two stage Monte Carlo model was undertaken on the impact of this 0.02 ug/l compliance figure on the Owenkillew downstream of the confluence with the Curraghinalt Burn. Monitoring data supplied by Dalradian Gold indicated that the 90 percentile concentration of dissolved mercury in the Curraghinalt Burn upstream of the Dalradian discharge was 0.25 ug/l. I refer to a copy of DCS1 monitoring data at **Tab 18** of the bundle. The results of Departmental monitoring indicates that the 90 percentile concentration of dissolved mercury in the Owenkillew upstream of the confluence with the Curraghinalt Burn into which the discharge is made, is 0.01 ug/l. I refer to a copy of the Departmental monitoring data at **Tab 15** of the bundle.
- 66. Modelling indicates that, with a 0.02 ug/l concentration in the discharge, the concentration of dissolved mercury in the Owenkillew downstream of the confluence with the Curraghinalt Burn is predicted to be 0.01 ug/l, below the EQS of 0.07 ug/l. The existing consent condition of 1.7 ug/l dissolved mercury did not require any amendment as a result of the review, as no effect on mercury concentrations within the Owenkillew is observed as a result of the

## **Condition Regulating Iron Concentration**

discharge.

- 67. The EQS for iron has not changed as a result of the change from the 2011 to 2015 Regulations. NIEA undertook a review of the previous two year's iron compliance data on the discharge consent. I refer to a copy of the compliance data for the period February 2015 March 2017 which is contained at **Tab 16** of the exhibits. This review demonstrated that the 95 percentile concentration over the past two years was 1.02 mg/l.
- 68. Again, a two stage Monte Carlo model was undertaken on the impact of this 1.02 mg/l concentration on the Owenkillew downstream of the confluence with the Curraghinalt Burn. Monitoring data supplied by Dalradian Gold indicated that the 90 percentile concentration of dissolved iron in the Curraghinalt Burn



upstream of the Dalradian discharge was 4.47 mg/l. I refer to a copy of DCS1 monitoring data at **Tab 18** of the exhibits.

- 69. The results of Departmental monitoring indicates that the 90 percentile concentration of dissolved iron in the Owenkillew upstream of the confluence with the Curraghinalt Burn into which the discharge is made, is 1.62 mg/l. I refer to a copy of the Departmental monitoring data at **Tab 15** of the exhibits.
- 70. Modelling indicates that, with a 1.02 mg/l concentration in the discharge, the concentration of dissolved iron in the Owenkillew downstream of the confluence with the Curraghinalt Burn is predicted to be 1.61 mg/l. The discharge is therefore having no impact on iron concentrations in the Owenkillew River. The existing consent condition of 3.9 mg/l dissolved iron therefore did not require any amendment as a result of the review, as no increase in iron concentration within the Owenkillew is observed as a result of the discharge.

### Conclusion

71. As a result of the review process carried out by the Department, taking account of the revised EQSs contained in the 2015 WFD Regulations, the Department was satisfied that treated effluent discharged would not give rise to any exceedence of the EQSs for the Owenkillew River, as prescribed by the WFD and 2015 WFD Regulations. This view was reached after carrying out a detailed review of the existing discharge consent conditions and using the most up to date monitoring data available to the Department. The revised discharge consent reflects the results of the updated review and analysis carried out by the Department and is consistent with the results of prior analysis carried out in 2012 and 2014 when this discharge consent was first granted and reviewed.

Ground (ii) The decision is unlawful in that it is contrary to Article 6 of the Habitats Directive 92/3/EEC which requires member states to avoid damaging activities that could significantly disturb these species (fresh water pearl mussels and Atlantic salmon) or deteriorate the habitats of the protected species or habitat types.

72. The Owenkillew River was designated a Special Area of Conservation under the Habitats Directive in 2001 because of the physical features of the river and the associated flora and fauna. The selection features for the Owenkillew River SAC designation include the following:

#### Selection Feature

Freshwater Pearl Mussel Margaritifera margaritifera

Water Courses of plain to montane levels with Ranuculus fluitans and Callitricho-Bratrachion vegetation

Old Sessile Oak woods with Ilex and Blechnum in the British Isles

Bog Woodland

Otter Lutra lutra

Brook Lamprey Lampetra planeri

Salmon Salmo salar

- 73. Prior to issuing the revised discharge consent which is challenged by the Applicant, the Department undertook an appropriate assessment of the effects of Dalradian's proposed effluent discharge upon the protected selection features of the Owenkillew, in accordance with the Habitats Directive. The result of that assessment was that the proposed discharge would not give rise to adverse effects. The steps undertaken by the Department are described below. In summary, a detailed appropriate assessment of the effects of Dalradian's discharge was undertaken in 2014 in the context of Dalradian's application for permission not to comply with conditions 25 and 26 of planning permission K/2013/0072/F. The assessment was then reviewed for the purposes of the review of the impugned discharge consent and it was confirmed that the previous conclusions remained applicable.
- 74. As set out above, in May 2013, Dalradian requested the NIEA to review its 2012 discharge consent in order to include authorisation to discharge surface water drainage. In parallel, with that application, Dalradian also made a planning



application to DOE Planning in February 2013 for permission to extend its exploration activities. The planning application included the proposal to continue its discharge of treated effluent and also the new proposal for surface water drainage. In the course of that planning application an appropriate assessment was carried out by the Department and completed on 13 November 2013. The assessment included consideration of the full extent of the effects of Dalradian's proposed discharge (including surface water discharge) upon the Owenkillew SAC. A copy of the report of that appropriate assessment dated at **Tab 19** of the bundle.

- 75. After both the planning permission and the revised water discharge consent had been granted (January and February 2014 respectively), Dalradian raised concerns about possible inconsistency between conditions 25 and 26 of the planning permission and the discharge consent, particularly in relation to the provisions regulating suspended solid concentrations. The former condition required a concentration in the Owenkillew of <10mg/l and had been included upon a recommendation by NIEA (NED), without reference to NIEA (WMU). The latter condition required a concentration in the discharge effluent of <50mg/l. Dalradian also considered that it was inappropriate to include a condition within its planning permission concerning the overall quality of the water in the river, irrespective of how any impurities may have entered the river.
- 76. In response to Dalradian's concerns, the NIEA WMU, carried out an analysis to ascertain if there was any inconsistency between the two different conditions, using the software and modelling procedures described above. The result was that a concentration of 50 mg/l suspended solids in the discharge effluent was consistent with and would not, on its own, give rise to an exceedence of a concentration of 10mg/l in the Owenkillew. It was therefore considered that the planning conditions were not necessary. This was recorded in the minutes of a meeting on 9 May 2014 and also email dated 13 May 2014 copies of which are at **Tab 20** of the bundle.
- 77. The issue was also considered during a meeting between representatives of Dalradian, Planning Service and NIEA on 19 May 2014. A copy of the notes of that meeting is at **Tab 21** of the bundle. At the meeting it was agreed that

[Type here]

planning conditions 25 and 26 were not necessary and that it was appropriate for Dalradian to make an application for a fresh planning permission, without these conditions, subject to the discharge consent remaining in place and the outcome of an updated appropriate assessment.

- 78. Following this meeting, on 22 May 2014, Dalradian made a further planning application seeking permission for the same development, but without conditions 25 and 26. This planning application therefore included the same water discharge activities as were the subject of the February 2014 consent.
- 79. On foot of this fresh planning application, the NIEA reviewed the appropriate assessment which had recently been completed in relation to the previous planning application and discharge consent. On 29 May 2014 and 6 June 2014, NIEA NED and NIEA WMU exchanged further updated draft appropriate assessment reports which took account of the discharge activity, if regulated only by the condition governing suspended solids within the discharge consent (ie <50mg/l within the discharge effluent) and with the planning conditions removed (ie <10mg/l within the receiving river). Copies of these updated draft assessment reports are at **Tabs 22 and 23** of the bundle. On 13 August 2014, both NIEA NED and NIEA WMU agreed on the content of the appropriate assessment report which concluded (in effect) that if conditions 25 and 26 were removed from the planning permission but the conditions within the existing water discharge consent remained, there would be no adverse effect upon the SAC. The assessment report, dated 13 August, is at **Tab 23**. The associated email of 13 August 2014 from NIEA NED is at **Tab 24** of the bundle.
- 80. The appropriate assessment report was again updated on 16 September 2014. A copy is at **Tab 25** of the bundle. This report was signed by me on behalf of NIEA WMU and contains a typing error. The date beside my name on internal Page 2 of the report reads "16/04/14" whereas it was approved by me at the same time as officials from NIEA NED and ought to read "16/09/14".
- 81. In November 2014, the Departmental Solicitor's Office was asked by the Department to provide some advice upon the planning application. I was asked to explain the reasoning and basis of the conclusions in the updated appropriate

assessment report that removal of the conditions would not give rise to adverse effects on the SAC. I did so in an email dated 27 November 2014, in which I explained the calculations which had been undertaken by the Department and the basis for our opinion that condition 25 was not necessary, provided the condition relating to suspended solids remained in the discharge consent. Further email exchanges with DSO took place on 4 and 5 December 2014. Copies of the relevant email chains are at **Tab 26** of the bundle.

- 82. On 13 February 2015, this reasoning was explained again in a memo from the Chief Executive of the NIEA to Planning Service. A copy is at **Tab 27** of the bundle. It was further explained in an email from NIEA NED to NIEA WMU dated 10 February 2015 which stated "....if the discharge meets the criteria at which pearl mussels can achieve favourable condition, it stands to reason that there can be no impact upon the SAC". A copy of the email is at **Tab 28**.
- 83. Following this process of reviewing and updating the appropriate assessment of the effects of the Dalradian discharge upon the SAC, the fresh planning permission was granted for the same development as within permission K/2013/0072/F, but without conditions 25 and 26. A copy of that permission is at **Tab 10** of the bundle.
- 84. As set out above, in March 2016, January 2017 and February 2017, routine monitoring of the Dalradian discharge identified exceedences in the permitted concentrations of zinc. This resulted in the NIEA issuing an Enforcement Notice requiring the concentrations to be brought into compliance. A copy of the Notice is at **Tab 29** of the bundle. This then led to Dalradian making an application on 20 April 2017 to review the conditions of its discharge consent to reflect the new EQSs which were contained in the WFD 2015 Regulations. The 2015 Regulations had come into force on 23 October 2015, after the conditions of the discharge consent had last been reviewed.
- 85. Dalradian's application to review the consent resulted in NIEA WMU carrying out a review and reconsideration of the appropriate assessment which had previously been carried out in 2014. It consulted with NIEA NED on 11 May 2017, but did not receive a response. A copy of this email is at **Tab 30** of the

bundle. On 17 August 2017, NIEA WMU carried out a screening exercise for an appropriate assessment of the review application and concluded that the previous appropriate assessment carried out in 2014 should be reviewed. The review was carried out taking account of the new EQSs within the 2015 WFD Regulations and included a remodelling exercise of the discharge. The content and nature of the proposed discharge effluent remained the same as that which had been assessed in 2014. The results of the screening exercise are at **Tab** 31 of the bundle.

- 86. On 22 August 2017, NIEA WMU undertook a review of the appropriate assessment which had previously been undertaken, in light of the revised remodelling and updated EQSs. The result was that the discharge would not give rise to any adverse effect upon the Owenkillew. A copy of the record of this exercise dated 22 August 2017 is at **Tab 32** of the bundle. This result was not unexpected since the content of the discharge had remained unchanged since 2014. The impugned discharge consent was issued on 29 September 2017, with conditions which were updated to reflect the new EQSs relating to zinc and copper.
- 87. During the 2017 review of the 2014 appropriate assessment, it was noted that the objectives for suspended solids stipulated within the Owenkillew River conservation objectives document remained at 10 mg/l. In addition, there was no proposed increase in either the discharge volume or suspended solids discharge concentration. Because no change was proposed, it was considered that the contents of the 2014 assessment remained appropriate.
- 88. In light of this clear chronology of events, the Department does not accept that it failed to carry out an appropriate assessment of the effects of this discharge upon the Owenkillew SAC, prior to granting it in September 2017. The Applicant has highlighted the fact that the consent was sent in draft form to Dalradian on 17 August 2017. Insofar as the applicant may have understood this communication to be the Department formally issuing the consent, they are incorrect. The consent was sent in draft form to Dalradian for any final comment and to inform the final decision. This was an entirely normal and regular part

of the review process. The draft consent and related emails to Dalradian are at **Tab 33** of the bundle.

89. The Applicant also criticises the fact that the Department consulted Loughs Agency after reaching a view about draft conditions. The Loughs Agency has overall responsibility for monitoring the water quality within the receiving waterways. This consultation was carried out in accordance with the statutory process under the Water (NI) Order 1999. It takes place at this stage of the process to enable Loughs Agency to form a view about overall water quality based upon a clear proposal for discharge and draft conditions, after consultation with the District Council, Council field staff and NIEA NED and after an appropriate assessment has been carried out (if required). In this case, Loughs Agency was consulted on the draft consent on 17 August 2017 and had been consulted on the draft first and second consents in 2012 and 2014. Loughs Agency did not respond to this consultation. Copies of the consultation request on 17 August 2017 and follow up email of 4 September 2017 are at Tab 34 of the bundle.

(iv)The decision is unlawful, unreasonable and irrational in that it provides for Dalradian to monitor water itself. The NIEA is required to apply Articles 4 and 5 of the Water Framework Directive Regulations 2015. Cadmium is referenced at substance 6 in Table 47 of Part 2 of Schedule 1 to the Regulations. Articles 9,11,13,14,15, and 17 contain details of mandatory monitoring to be carried out by NIEA.

- 90. The Applicant contends that the consent is irrational on the ground that it provides for self-monitoring by Dalradian. This is an incomplete analysis of the consent. Discharge monitoring is governed by two conditions in the consent. Pursuant to Condition 1(I) Dalradian is required to undertake monthly monitoring of the consented discharge at defined locations and tested for the specified substances along with any other substance which might give rise to a breach of EQS. The results must be submitted to the Department on a quarterly basis. If any breach of an EQS is detected action plans must be developed and agreed with the NIEA, with a view to reducing the concentration in question.
- 91. Dalradian's monthly discharge monitoring is subject to annual audit monitoring of the receiving environment by NIEA at those points self-monitored by Dalradian.

- 92. In addition, Condition 4 of the Discharge Consent enables NIEA to carry out its own monitoring of the discharge. This is done on a monthly basis by NIEA. This monitoring involves collection of a sample from the consented discharge point, without prior notice to Dalradian. This sample is subsequently analysed at the NIEA laboratories in Lisburn for all parameters for which limits have been set in the consent. It is this monitoring that is used to assess compliance with consent conditions.
- 93. The consent conditions therefore enable the discharge and the receiving waterway to be monitored by NIEA. This system will continue for the duration of the discharge consent. To date there has been no impact detected on water quality in the Owenkillew River as a result of this ongoing discharge.
- 94. In addition to testing and monitoring the content of the discharge, NIEA also has monitoring programmes in place to meet the statutory requirements as set out in the Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015. These relate to the testing and monitoring of the surrounding waterways. I refer you to Ms Wendy McKinley's affidavit which provides detail in relation to NIEA's compliance with the monitoring requirements of the WFD Regulations.
- (vi) The decision is unreasonable and irrational in that it refers to the need to review the discharge consent if any area downstream from the discharge is designated under the European Communities (Natural Habitats etc) Regulations (Northern Ireland) 1995 or if the conditions do not meet the requirements of any other European Directive. This completely ignores the fact that the Owenkillew river is a SAC, (Special Area of Conservation) the Foyle River and tributaries are ASI designated, and the whole area is an AONB (Area of Outstanding Natural Beauty). The decision has failed to take these European designations in to account and ford them special protection under the Habitats Directive 1992.
  - 95. This ground arises from Informative 2 of the Discharge Consent. Informatives are not conditions which regulate a discharge. They are statements of information about the conduct of water discharge activities and the operation of the consent, about which the Department considers that the holder should be aware. Informative 2 advises Dalradian of the Department's power under Schedule 1, Para 5(1) Water (NI) Order 1999 to review a discharge consent and its conditions at any time. A review may be initiated either of the Department's own motion or upon request. Informative 2 also advises the holder of one important event which is likely to cause a review to be carried out, namely if any area downstream of the authorised discharge is designated under

the Conservation (Natural Habitat etc) Regulations (NI) 1995, which transpose into Northern Ireland law, the obligations of the Habitats Directive. If an area is designated, the Department will wish to ascertain the effects of the permitted discharge upon the newly designated site and may therefore wish to review the consent in order to ensure that the discharge does not give rise to any adverse effect upon the site.

- 96. Contrary to the belief of the Applicant, this informative does not ignore the fact that the Owenkillew has already been designated as a SAC, nor does it purport to absolve the Department from its existing obligations under the 1995 Regulations and Habitats Directive in relation to the assessment of effects of the discharge prior to granting a consent. As set out above, the Department carried out an appropriate assessment of the effects upon the Owenkillew SAC in 2014 prior to the grant of the most recent planning permission and then reviewed and updated that assessment prior to granting the impugned discharge consent.
- (vii) The decision is unlawful in that it is contrary to Environment (Northern Ireland) Order 2002. Given that the discharge consent states it must be reviewed if it were to affect an area under European Designation, the decision maker must not have taken into account the fact that there are affected designated areas and therefore has not complied with the according requirements of this order.
  - 97. As set out above the Department's power to review a discharge consent is contained in Schedule 1, para 5(1) Water (NI) Order 1999.
  - 98. The provisions in the Water Order provide a legal mechanism by which the Department can ensure that the conditions or the consent itself continue to be appropriate in light any changes to the environment. The power of review therefore enables the Department to take account of relevant environmental information which might emerge, such as new environmental designations or the results of new environmental surveys about the condition or existence of important (or protected) environmental interests.
  - 99. For the reasons set out above, the Department considers that it has complied with its obligations to carry out an assessment of the effects of this discharge prior to granting consent.

(viii) The decision is unreasonable because water is extracted at Newtonstewart for the Castlederg reservoir which provides water for the people of Castlederg area. I 2010, the United Nations recognised access to clean water as a fundamental human right.

- 100. Northern Ireland Water extracts water from both the River Derg and the River Strule. The combined extraction is used to supply water to the Derg Water Treatment Works for treatment before distribution as drinking water. The water abstracted from both rivers is therefore treated to Drinking Water Standards within a water treatment facility operated by Northern Ireland Water and which in turn is regulated by the Drinking Water Inspectorate. I refer to the affidavit of Mrs Catriona Davis, NIEA Principal Drinking Water Inspector.
- 101. The applicant refers to an internal email from Andrew Nugent on 19/05/16 stating that "copper and cadmium have shown a fail as usual. The zinc result is a genuine fail". I believe that this concern on the part of the applicant arises from the manner in which the results of the Department's discharge monitoring are recorded and the capability of the computerised device which creates the records. I explain this further below.
- The database used by the Department for recording and reporting the results of its sampling is currently unable to record "qualifiers" such as the symbol "<"). NIEA laboratory analytical methods, as with all analytical methods, are only accurate down to a certain concentration, below which the method cannot provide an accurate result. Below this figure, the laboratory will report the result as a "less than" concentration (using the symbol, or qualifier "<"). In the case of copper, the consent limit is 16.2 ug/l, however the laboratory can only analyse down to a concentration of 20 ug/l. The results for copper are therefore reported by the laboratory as <20 ug/l. The database is however unable to display the "<" qualifier, so the result appears to be 20 ug/l, instead of <20 ug/l. This "apparent" 20 ug/l failure against the 16.2 ug/l limit, is not a "real" failure.

- 103. Similarly, the consent limit for cadmium is 0.7 ug/l, however the laboratory can only analyse down to a concentration of 10 ug/l. The results for copper are therefore reported by the laboratory as <10 ug/l. The database is however unable to display the "<" qualifier, so the result appears to be 10 ug/l, instead of <10 ug/l. This apparent 10 ug/l failure against the 0.7 ug/l limit again is not a "real" failure.
- The statement in the email referred to by the Applicant that "copper and cadmium have shown a fail as usual" therefore reflects the inability of the database to record the symbol "<". The reference to zinc exceedences are explained above and gave rise to the Department issuing an Enforcement Notice on 30 March 2017, followed by a review of the discharge consent, taking account of the new EQSs for, inter alia, zinc.

# (xi) The decision is unreasonable and procedurally improper as I believe that Richard Coey was not authorised to reach this decision.

- 105. The power to grant a discharge consent under the 1999 Order is vested in the Department (a statutory corporation) not the Minister. While the Department acknowledges that this is primarily an issue of law, it does not accept that it is deprived of its legal authority to exercise its own statutory powers, by reason of the absence of a Minister.
- 106. In this case, the decision to grant a discharge consent was taken by me on behalf of the Department and I signed the consent, having been authorised to do so in 2007 by a Director of the Department of the Environment and in 2015 by the Minister of the Environment. These written authorisations were made pursuant to Article 7(1) Departments (NI) Order 1999 and now bind DAERA pursuant to Article 9(1) Departments (Transfer of Functions)(NI) Order 2016. Copies of both are at **Tab 35** of the bundle.
- 107. The review process initiated by Dalradian in April 2017 which led to the grant of the impugned discharge consent was conducted in the absence of a Minister. In this case, I considered it to be appropriate to exercise the powers

of the Department, as it was not a decision in which the Minister would normally be involved. Pursuant to the authorisation conferred upon me, I have signed all discharge consents on behalf of the Department since 2007, without direction from a Minister. The review process in this case did not involve the application of any new policy. I applied a methodology for calculating the acceptability of certain concentrations of substances using a combination of computer and environmental standards prescribed in legislation. These are well established procedures which do not involve the formulation or application of any new policy or methodology. I also acted in consultation with professional colleagues in NIEA NED, who assisted in the preparation of an appropriate assessment in accordance with the Habitats Directive. The review application also involved no change in the content or nature of the proposed discharge. It was prompted only by a request from Dalradian that the consent conditions reflect up to date statutory EQSs which in turn were based upon the most up to date scientific research on the effects of the relevant substances upon aquatic life, including the freshwater mussels which are a selection feature of the Owenkillew SAC.

- 108. In all of the circumstances, I believe that I have acted on behalf of the Department with the requisite authority, notwithstanding the absence of a Minister.
- (xiii) The decision is unreasonable and procedurally improper as this Application for Consent ought not to have been accepted in the first instance by NIEA since Dalradian was already in breach of the 3 year licence granted to Dalradian for the works on this site in January 2014 (Project K/2013/0072/F)
  - 109. The issue raised by the Applicant in this ground of challenge concerns an alleged breach of the conditions of planning permission K/2013/0072 authorising Dalradian to conduct exploration activities. The Department does not accept that an allegation of breach of planning control of this nature is sufficient to deprive it of authority to exercise its powers under the Water (NI) Order 1999 to conduct a review an existing discharge consent. The Department considers that the two issues are separate and that the power to

review a discharge consent is not conditional upon the continuation of a valid and subsisting planning permission for other activities by the holder.

110. Save as where otherwise stated or appearing I depose to the foregoing from facts within my own personal knowledge.



Sworn at 88 Victorio Steel Colfatte

This 3rd day of August 2018

Before me a Solicitor of the Court of Judicature in Northern Ireland empowered to administer Oaths.



This affidavit is filed on behalf of the Respondent by The Departmental Solicitor, Department of Finance, Centre House, 79 Chichester Street, Belfast, BT1 4JE.