

Before Hearing Commissioners
at Waikato Regional Council

I mua i te kaikōmihana
ki te kaunihera o te rohe o Waikato

under: the Resource Management Act 1991

in the matter of: Proposed Plan Change 1 to the Waikato Regional Plan

between: **Mercury NZ Limited**
Submitter 73182

and: **Waikato Regional Council**
Consent Authority

Memorandum of counsel for Mercury NZ Limited
(Submitter 73182) in relation to scope for additional attributes,
targets and states in Table 3.11-1

Dated: 2 April 2019

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**MEMORANDUM OF COUNSEL FOR MERCURY NZ LIMITED IN
RELATION TO SCOPE FOR ADDITIONAL ATTRIBUTES TARGETS AND
STATES IN TABLE 3.11-1**

- 1 This memorandum responds to questions posed by Commissioner Robinson during the presentation of Mercury NZ Limited's (*Mercury's*) legal submissions on 14 March 2019 on Plan Change 1 (*PC1*).
- 2 Commissioner Robinson sought confirmation regarding the extent to which additional potential attributes have been sought by some submitters¹ were:
 - 2.1 assessed in the PC1 s32 Report; and
 - 2.2 the technical reports referred to in the s32 Report.
- 3 For the purposes of this memorandum the additional potential attributes are those listed at paragraphs 9.1, 9.2 and 9.3 of the Legal Submissions for Mercury dated 14 March 2019, being:
 - 3.1 Periphyton biomass;
 - 3.2 Dissolved inorganic nitrogen (*DIN*);
 - 3.3 Dissolved reactive phosphorous (*DRP*);
 - 3.4 Cyanobacteria/planktonic cyanobacteria;
 - 3.5 Fine deposited sediment/deposited sediment;
 - 3.6 Dissolved oxygen (*DO*);
 - 3.7 Temperature;
 - 3.8 pH range;
 - 3.9 Toxicants/metals; and
 - 3.10 Macroinvertebrate community index (*MCI*); and
 - 3.11 Fish Index of Biotic Integrity (*Q-IBI*).
- 4 We discuss below the extent to which the above potential attributes were discussed in the s32 Report and the technical reports referred to therein. To assist the Committee, we have also prepared a table summarising the various references to the listed potential attributes

¹ See the list at paragraph 9.1, 9.2 and 9.3 of the Legal Submissions for Mercury dated 14 March 2019.

in the relevant technical and assessment reports. That table (including hyperlinks to the various reports) is attached as **Appendix 1** to this memorandum.

5 However, it is important to recognise that the Technical Leaders Group (TLG) assessment process and the s32 assessment serve two very different purposes. The TLG procedure was a purely factual (preliminary) technical inquiry to determine whether there was sufficient relevant baseline data and scientific knowledge for potential attributes to qualify for inclusion in PC1.

6 In contrast, the s32 analysis is a more substantive merits assessment, which considers the benefits and costs of actually including that attribute in the plan. As noted by Whata J in *Albany North Landowners v Auckland Council*:²

... the primary function served by s32 is to ensure that the Council has properly assessed the appropriateness of a proposed planning instrument, including by reference to the costs and benefits of particular provisions prior to notification.

7 Accordingly, consideration by the TLG does not amount to consideration for the purposes of s32, and the two cannot be treated interchangeably when considering scope.

Consideration of Additional Attributes in the S32 Report

8 Section C.2.2.8 of the s32 Report describes the process taken towards development of the attributes in PC1.³ It refers to the recommendation and consideration of attributes recommended to the Collaborative Stakeholder Group (CSG) by the TLG.

9 The only two additional attributes that are addressed in the s32 Report are MCI and DO. Importantly however, the s32 Report's reference to these two additional attributes is extremely brief (consisting of only three sentences in total) and simply repeats the TLG's conclusion that the attributes were not appropriate and/or out of scope.

10 The s32 Report did not include any analysis or detailed consideration of the merit of expanding Table 3.11-1 to include the specific potential attributes noted above, or additional attributes more generally.

² *Albany North Landowners v Auckland Council* [2017] NZHC 138 (*Albany North Landowners*) at [132].

³ Section 32 Report, Part C Technical Information, page 67.

Consideration of Additional Attributes in the Technical Reports

- 11 In making the above brief statements regarding Table 3.11-1 attributes, the s32 Report refers to a number of TLG reports being:⁴
- 11.1 TLG 2014, Document Number 3408329;⁵
- 11.2 TLG 2015, Document Number 3414280;⁶
- 11.3 TLG 2015, Document Number 3435173;⁷
- 11.4 TLG 2015, Document Number 3471897;⁸ and
- 11.5 TLG 2016, Document Number 6154421.⁹
- 12 While the 2014 TLG Report recommended investigations into various attributes, the TLG ultimately determined the following in relation to each of the potential additional attributes:

Additional Potential Attribute	TLG Conclusion
Periphyton biomass	Recommended to exclude due to limited relevance to the catchment ¹⁰
DIN	While the TLG suggested developing monitoring dissolved nutrient 'norms' in 2014, ¹¹ it did

⁴ Given the broad application of the potential attributes being sought by the relevant submitters, this memorandum does not address the two reports referred to in the s32 Report relating only to lake attributes.

⁵ TLG 2014, Document Number 3408329, Waikato Objectives Framework – Expert Panel Attributes Workshop.

⁶ TLG 2015, Document Number 3414280, Water Quality Attributes for Healthy Rivers Wai Ora Plan Change- TLG summary for CSG12.

⁷ TLG 2015, Document Number 3435173, TLG Response Regarding MCI as HRWO Attribute.

⁸ TLG 2015, Document Number 347189, TLG recommendation on the use of Dissolved Oxygen as an attribute for Waikato-Waipā catchment under the WRC Plan Change 1.

⁹ TLG 2016, Document Number 6154421. Water Quality Attributes for Healthy Rivers - Wai Ora Plan Change.

¹⁰ TLG 2016, Document Number 6154421, Table 4, page 16. TLG concluded that periphyton was of limited relevance as a measure of Ecosystem Health in Waikato-Waipā and recommend it not be included as an attribute.

¹¹ TLG 2014, Document Number 3408329, pages 1 and 18. TLG recommended developing a set of Dissolved Nutrient 'norms' that could be applied to rivers that are not covered by TN or TP attributes. The TLG noted that further work was needed to identify how DIN and DRP 'norms' would fit into the Waikato Objectives Framework and at the very least these 'norms' would be used in

Additional Potential Attribute	TLG Conclusion
	not ultimately consider including such norms as PC1 attributes.
DRP	While the TLG suggested developing monitoring dissolved nutrient 'norms' in 2014, ¹² it did not consider including such norms as PC1 attributes.
Cyanobacteria	Recommended to apply in lakes (such recommendation was ultimately taken up in PC1 Table 3.11-1 regarding Lake FMUs) and extend to include lowland river main stem reaches, providing examples in the Lower Waikato FMU ¹³
Fine deposited sediment	Recommended not to include as not sufficiently developed ¹⁴ and insufficient monitoring data ¹⁵
DO	Recommended to exclude as an attribute due to indirect relationship with the four PC1 contaminants. ¹⁶ Also suggested a DO attribute was unnecessary given point sources will already

surveillance monitoring to support objectives set on river main stems in relation to TN and TP levels.

¹² Ibid.

¹³ TLG 2016, Document Number 6154421, Table 4, page 16. TLG recommended to apply the cyanobacteria attribute to lakes and lake fed rivers, and extend to include lowland river main stem reaches. Example locations provided only relate to the Lower Waikato FMU.

¹⁴ TLG 2016, Document Number 6154421, page 15. TLG considered that the deposited sediment attribute had not yet been developed to the point where it could meet criteria for inclusion as an attribute in PC1.

¹⁵ TLG 2015, Document Number 3414280, page 4. TLG recommended that deposited sediment not be included as an attribute. TLG concluded there was insufficient monitoring data to describe current state meaning the attribute remained in the development stage.

¹⁶ TLG 2016, Document Number 6154421, page 15. TLG recommended that dissolved oxygen be excluded as out of scope due to the indirect relationship between dissolved oxygen and the four contaminants.

Additional Potential Attribute	TLG Conclusion
	have monitoring regimes in place ¹⁷
Temperature	Recommended to exclude as out of scope ¹⁸
pH range	Recommended to exclude as out of scope ¹⁹
Toxicants/ metals	Recommended to exclude as out of scope ²⁰
MCI	Recommended to exclude as difficult to establish causal link to the PC1 contaminants ²¹
Q-IBI	No specific consideration of Q-IBI but recommended that indicators of fish communities be excluded as they generally perform poorly when compared to other indicators ²²

¹⁷ TLG 2016, Document #6154421, page 12. TLG also noted that point sources where discharges of organic material may cause DO issues are controlled activities and will have appropriate monitoring regimes already in place.

¹⁸ TLG 2016, Document Number 6154421, Table 4, page 16. TLG concluded that temperature was out of scope for PC1.

¹⁹ TLG 2015, Document Number 3414280, page 4. TLG concluded that pH was outside of the scope of PC1 as it is not directly related to the four PC1 contaminants.

²⁰ TLG 2016, Document Number 6154421, page 15 and Table 4, page 16. TLG did not recommend a Heavy Metals attribute on the basis that it was out of scope for PC1.

²¹ TLG 2016, Document Number 6154421, page 15 and Table 4, page 16. TLG concluded that MCI was not recommended as a numerical attribute as it was very difficult to link MCI to changes in concentrations of the four PC1 contaminants in a way that allows confidence in its use in limit setting. The TLG did however recommend that MCI (and other macroinvertebrate indices) should continue to be monitored by WRC at representative sites throughout the Waikato-Waipā catchment.

²² TLG 2015, Document Number 3414280, page 5. TLG recommended that indicators of fish communities not be included as attributes. The TLG noted that indicators based on fish communities generally perform poorly when compared with other indicators (e.g. nutrient concentrations, macroinvertebrates), particularly when assessing land use effects.

- 13 Based on the above, Mercury considers that it is clear that temperature, pH range, toxicants/metals, DIN, and DRP, have at no point been considered by the technical assessments or the s32 Report as being within the scope of PC1.
- 14 Moreover, the technical assessments which determined the attributes recommended for inclusion in PC1 considered and dismissed: periphyton biomass, MCI, Q-IBI, DO and fine deposited sediment as lacking sufficient merit for inclusion within PC1.
- 15 In relation to cyanobacteria the TLG only considered applying the attribute to Lake FMUs (which PC1 does). While it also recommended extending the attribute to lowland river main stem reaches, (providing examples of such reaches in the Lower Waikato FMU only), the s32 Report did not provide any substantive discussion concerning cyanobacteria other than in relation to the application of the attribute to Lake FMUs.

Panel's Questions regarding *Albany North Landowners*

- 16 At the hearing of Mercury's case, Commissioner Robinson referred to the decision of Whata J in *Albany North Landowners v Auckland Council*.²³ That case dealt with issues of scope in the context of the (then) Proposed Auckland Unitary Plan (*PAUP*).
- 17 Having considered Commissioner Robinson's comments further following the hearing, and those of Whata J, we consider it is relevant to note that *Albany North Landowners* concerned a proposed plan, rather than a plan change (as in the present case). Whata J himself placed some importance on this distinction:²⁴

Returning to the present case, the Auckland Unitary Plan planning process is far removed from the relatively discrete variations or plan changes under examination in *Clearwater, Option 5* and *Motor Machinists*. The notified PAUP encompassed the entire Auckland region (except the Hauraki Gulf) and purported to set the frame for resource management of the region for the next 30 years. [...] The scope for a coherent submission being "on" the PAUP in the sense used by William Young J was therefore very wide.

- 18 This statement is important when considering the relevance of *Albany North Landowners* and the High Court decisions *Clearwater Resort Limited v Christchurch City Council*²⁵ and *Palmerston North*

²³ *Albany North Landowners v Auckland Council* [2017] NZHC 138.

²⁴ *Albany North Landowners* at [129].

²⁵ *Clearwater Resort Limited v Christchurch City Council* HC Christchurch AP34/02, 14 March 2003.

City Council v Motor Machinists Limited,²⁶ both of which were referred to in detail in the legal submissions presented by Mercury.

- 19 PC1 is clearly not such a broad and all-encompassing planning event as the PAUP. It is instead a relatively discrete and subject-specific plan change. In that sense it is closer in nature to the plan changes considered in *Clearwater Resort Limited* and *Motor Machinists Limited*.
- 20 In addition, the main issue being addressed in the *Albany North Landowners* case was whether the recommendations being made by the Independent Hearings Panel to Auckland Council were within the scope of submissions received. There was limited discussion in that case as to whether the submissions themselves were “on” the PAUP. Instead, Whata J’s references to *Clearwater* and *Motor Machinists* were more for context in considering “natural justice concerns”.²⁷
- 21 Consequently, it is submitted that *Clearwater Resort Limited* and *Motor Machinists Limited* remain the most directly relevant authority for the Panel’s consideration of the issue of scope.
- 22 We note also Commissioner Robinson’s queries about Whata J’s references to the concept of a submission being “out of left field”, as referred to in *Clearwater*. The “left field” concept does not act as a conclusive test, rather it is more in the nature of a preliminary inquiry to eliminate submissions that are *obviously* out of scope. Nevertheless, even if a submission cannot be said to be “out of left field”, further analysis is necessary to determine whether that submission is actually within scope (as was undertaken by Whata J in *Albany North Landowners*²⁸).

Conclusion

- 23 For the above reasons, Mercury maintains its position that:
- 23.1 there is no scope to expand the list of additional attributes in the manner sought by some submitters;
- 23.2 if targets based on these additional attributes are to be enshrined in the Waikato Regional Plan, the only appropriate mechanism to do so is through a future plan change process;
- 23.3 for the proper, efficient and effective use of experts’ time, it would be preferable for the Independent Hearings Panel to

²⁶ *Palmerston North City Council v Motor Machinists Limited* [2013] NZHC 1290.

²⁷ See *Albany North Landowners* at [135].

²⁸ *Albany North Landowners*, see particular paragraphs [166]-[176].

consider the issue of scope, and make directions in that regard, prior to expert caucusing.

Dated: 2 April 2019



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Appendix One

Assessment of Potential Additional Attributes in various technical reports

Relevant Reports	Assessment of Additional Attributes for inclusion in Table 3.11-1/PC1 Targets					
	s32 Report Evaluation Report	TLG 2014. Document # 3408329	TLG 2015. TLG Document # 3435173	TLG 2015. Document # 3471897	TLG 2015. Document # 3414280	TLG 2016. Document # 6154421
Periphyton biomass	Nil	Recommended to develop an attribute ⁱ	Nil	Nil	Recommended to exclude due to limited relevance to the catchment ⁱⁱ	Recommended to exclude due to limited relevance to the catchment ⁱⁱⁱ
Dissolved inorganic nitrogen	Nil	Recommended developing `norms` ^{iv}	Nil	Nil	Nil	Refers to the earlier recommendation to develop `norms` ^v but does not recommend inclusion as an attribute
Dissolved reactive phosphorous	Nil	Recommended developing `norms` ^{vi}	Nil	Nil	Nil	Refers to the earlier recommendation to develop `norms` ^{vii} but does not recommend inclusion as an attribute
Cyanobacteria	Only in relation to lakes – as in notified PC1	Recommended to apply in lowland river main stem reaches ^{viii}	Nil	Nil	Noted there was unlikely to be sufficient socioeconomic modelling for application outside of lakes ^{ix}	Recommended to apply in lakes and extend to include lowland river main stem reaches ^x

Relevant Reports	Assessment of Additional Attributes for inclusion in Table 3.11-1/PC1 Targets					
	s32 Report Evaluation Report	TLG 2014. Document # 3408329	TLG 2015. TLG Document # 3435173	TLG 2015. Document # 3471897	TLG 2015. Document # 3414280	TLG 2016. Document # 6154421
Fine deposited sediment	Nil	Recommended developing an attribute ^{xi}	Nil	Nil	Recommended not to include as insufficient monitoring data ^{xii}	Recommended not to include as not sufficiently developed ^{xiii}
Dissolved oxygen (DO)	Noted that DO not included as indirectly related to the four PC1 contaminants ^{xiv}	Recommended to apply DO as an attribute ^{xv}	Nil	Recommended to exclude as attribute ^{xvi}	Recommended to apply DO attribute below point sources only – i.e. not for the full catchment ^{xvii}	Recommended to exclude as attribute due to indirect relationship with the PC1 contaminants, ^{xviii} also suggested DO attribute was unnecessary given point sources will already have monitoring regimes in place ^{xix}
Temperature	Nil	Recommended developing an attribute ^{xx}	Nil	Nil	Recommended to exclude as out of scope ^{xxi}	Recommended to exclude as out of scope ^{xxii}
pH range	Nil	Nil	Nil	Nil	Recommended to exclude as out of scope ^{xxiii}	Noted previous recommendation to exclude ^{xxiv}

Relevant Reports	Assessment of Additional Attributes for inclusion in Table 3.11-1/PC1 Targets					
	s32 Report Evaluation Report	TLG 2014. Document # 3408329	TLG 2015. TLG Document # 3435173	TLG 2015. Document # 3471897	TLG 2015. Document # 3414280	TLG 2016. Document # 6154421
Toxicants/ metals	Nil	Recommended developing an attribute ^{xxv}	Nil	Nil	Nil	Recommended to exclude as out of scope ^{xxvi}
Macroinvertebrate community index (MCI)	Brief reference to MCI being an inappropriate attribute due to lack of cause/effect relationship ^{xxvii}	Recommended developing an attribute ^{xxviii}	MCI not an appropriate attribute due to lack of robust cause-effect relationships ^{xxix}	Nil	Recommended to exclude as attribute as impact on MCI of PC1 controls unpredictable ^{xxx}	Recommended to exclude as difficult to link to the PC1 contaminants ^{xxxii}
Fish Index of Biotic Integrity (Q-IBI)	Nil	Recommended developing a generic biotic index attribute – although referred to MCI only ^{xxxiii}	Nil	Nil	Recommended that indicators of fish communities be excluded as they generally perform poorly ^{xxxiii}	Did not recommend any fish index measures and recommended to exclude fish catch index as out of scope ^{xxxiv}

ⁱ TLG 2014. Document #3408329, pages 1 and 12. TLG recommended to not apply the periphyton attribute as per NPS-FM, because of limited relevance in most streams and rivers in the Waikato-Waipā catchment. Recommended to develop a % cover Attribute for surveillance monitoring only.

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- ii TLG 2015. Document #3414280. TLG concluded that periphyton is of limited relevance as a measure of Ecosystem Health in Waikato-Waipā and recommend it not be included as an Attribute.
- iii TLG 2016. Document #6154421, Table 4, page 16. TLG concluded that periphyton is of limited relevance as a measure of Ecosystem Health in Waikato-Waipā and recommend it not be included as an attribute.
- iv TLG 2014. Document #3408329, pages 1 and 18. TLG recommended developing a set of Dissolved Nutrient 'norms' that could be applied to rivers that are not covered by TN or TP attributes. Notes that further work was needed to identify how DIN and DRP 'norms' would fit into a Waikato Objectives Framework. Noted that at the very least these 'norms' would be used in surveillance monitoring to support objectives set on river mainstems in relation to TN and TP levels.
- v Ibid.
- vi Ibid.
- vii Ibid.
- viii TLG 2014. Document #3408329, pages 1 and 21. TLG recommended to apply a planktonic cyanobacteria attribute and extend to include lowland river main stem reaches.
- ix TLG 2015. Document #3414280, page 3. TLG concluded that it was unlikely that scenario modelling of socio-economic implications and environmental outcomes would be possible within the PC1 timeframe but that there was a reasonable level of information for the Shallow Lakes FMU and this attribute was most relevant there.
- x TLG 2016. Document #6154421, Table 4, page 16. TLG recommended to apply to lakes and lake fed rivers, and extend to include lowland river main stem reaches. Example locations provided only relate to the Lower Waikato FMU.
- xi TLG 2014. Document #3408329, pages 1 and 19. TLG recommended to develop and apply a deposited sediment attribute for wadeable rivers.
- xii TLG 2015. Document #3414280, page 4. TLG recommended that deposited sediment not be included as an attribute. TLG concluded there was insufficient monitoring data to describe current state meaning the attribute remained in the development stage.
- xiii TLG 2016. Document #6154421, page 15. TLG considered that the deposited sediment attribute had not yet been developed to the point where it could meet criteria for inclusion.
- xiv s32 Report, Section C.2.2.8, page 67. Summarises the TLG finding (TLG 2015 Document# 3471897) that DO was indirectly related to the four PC1 contaminants.
- xv TLG 2014. Document #3408329, pages 1 and 15. TLG recommended applying a dissolved oxygen attribute as per NPS-FM, and extend to include all rivers rather than just below point sources.
- xvi TLG 2015. Document #3471897, page 2. TLG recommended that dissolved oxygen be excluded as an attribute in rivers given the poor performance of the attribute relative to selection criteria.
- xvii TLG 2015. Document #3414280, page 4. TLG recommended that dissolved oxygen be included as an attribute for reaches below point source discharges, but not for general application across the catchment.
- xviii TLG 2016. Document #6154421, page 15. TLG recommended that dissolved oxygen be excluded as out of scope due to the indirect relationship between dissolved oxygen and the four contaminants.
- xix TLG 2016. Document #6154421, page 12. TLG also noted that point sources where discharges of organic material may cause DO issues are controlled activities and will have appropriate monitoring regimes already in place.
- xx TLG 2014. Document #3408329, pages 1 and 20. TLG recommended developing and applying a temperature attribute to rivers in the Waikato-Waipā catchment.
- xxi TLG 2015. Document #3414280, page 4. TLG concluded that temperature was outside of the scope of PC1, as it is not related to the four contaminants.

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- ^{xxii} TLG 2016. Document #6154421, Table 4, page 16. TLG concluded that temperature was out of scope for PC1.
- ^{xxiii} TLG 2015. Document #3414280, page 4. TLG concluded that pH was outside of the scope of PC1, as it was not directly related to the four contaminants.
- ^{xxiv} TLG 2016. Document #6154421, Appendix 3, page 35. Notes that TLG previously recommended to not include pH as an attribute in report "Water Quality Attributes for Healthy River: Wai Ora Plan Change (DM#3411171)".
- ^{xxv} TLG 2014. Document #3408329, pages 1 and 21. TLG recommended developing a heavy metals attribute.
- ^{xxvi} TLG 2016. Document #6154421, page 15 and Table 4, page 16. TLG did not recommend a heavy metals attribute on the basis that it was out of scope.
- ^{xxvii} s32 Report, Section C.2.2.8, page 67. Refers to the consideration of MCI as a potential additional attribute and notes it was not considered appropriate as an attribute at this time because of the lack of robust cause-effect relationships that preclude modelling of the wider implications of limits on contaminants to achieve different MCI levels.
- ^{xxviii} TLG 2014. Document #3408329, pages 1, 21 and 23. TLG recommended developing biotic index attribute reflecting food chain intactness, using MCI as an example.
- ^{xxix} TLG 2015. TLG Document #3435173, page 1-2. TLG recommended that MCI was not appropriate as an attribute at this time, because of the lack of robust cause-effect relationships that preclude modelling of the wider implications of limits on contaminants to achieve different MCI levels.
- ^{xxx} TLG 2015. Document #3414280, page 5. The TLG recommended that MCI not be included as an attribute. The TLG noted that the main issue with MCI is the range of drivers that influence it such that improvements in MCI may not occur simply from improving management of contaminant levels (i.e., the causative link is weak or non-existent). The TLG concluded that it was not possible at this stage to predict the effectiveness of controls on N, P, sediment and E. coli alone on MCI outcomes meaning that any cost-benefit analysis was severely limited.
- ^{xxxi} TLG 2016. Document #6154421, page 15 and Table 4, page 16. TLG concluded that MCI was not recommended as a numerical attribute as it was very difficult to link MCI to changes in concentrations of the four contaminants in a way that allows confidence in its use in limit setting. However, recommended that MCI (and other macroinvertebrate indices) should continue to be monitored by WRC at representative sites throughout the Waikato-Waipā catchment.
- ^{xxxii} TLG 2014. Document #3408329, pages 1, 21 and 23. TLG recommended developing Biotic Index attribute reflecting food chain intactness, but only referred to MCI as the example.
- ^{xxxiii} TLG 2015. Document #3414280, page 5. TLG recommended that indicators of fish communities not be included as Attributes. The TLG noted that indicators based on fish communities generally perform poorly when compared with other indicators (e.g. nutrient concentrations, macroinvertebrates), particularly when assessing land use effects.
- ^{xxxiv} TLG 2016. Document #6154421, Table 4, page 16. TLG did not recommend any fish index specific measures. It considered that catch per unit of effort was out of scope.