

## Castalia responses to reviewer comments - impact on councils report

Reviewer	Comment	Status	Description of Adjustments
	I don't think the report adequately addresses the level of uncertainty in the cost estimates. The commentary on uncertainty on pages 25 and 26 suggests a very considerable range between the lower and higher estimates based on the three largest cost items, adding around \$50m to the total cost. That would deliver total costs 27% higher than estimated. I think it would be more honest to make a larger commentary on uncertainty and the possible range of costs in the executive summary, the introduction and in the body of the report.	Resolved	This is a helpful comment. We have provided more detail on how we determined the uncertainty for each cost estimate, and expressed confidence (high, medium, low) in each cost estimate. There is a high-level summary of this approach at the beginning of section 3, as well as comment on the level of uncertainty in the description of the method for determining each cost item.
	One of the overall conclusions discussed below is that the report does not adequately deal with uncertainty in the cost estimates. The greatest level of uncertainty in the estimates is likely to be at the most detailed level of the estimates. The estimates of costs, by activity, by region on pages 23 and 24 will have the highest level of uncertainty. It is important that decision-makers understand that, and the likely range of uncertainty that surrounds the estimates.	Resolved	See above.
	<p>I think the business model that has been used to estimate the costs associated with farm plans warrants some more discussion and justification. The current focus seems preoccupied with the number of hours that it might take to audit a plan. That is important given that the scope and nature of a farm plan is still uncertain. However, the paper leaves the impression that the business model assumes that the audit is a desktop exercise and that no visits take place (that would certainly be the case with only 8 hours on average for an audit). This warrants some discussion because I suspect that in the first cycle of auditing there will be considerable uncertainty on the part of land owners that may require intervention in order to produce sound farm plans. In the second cycle of auditing and reporting there are likely to be those who have not undertaken the actions that they committed to in the first cycle and a degree of ground-truthing will be required to ensure that this requirement actually results in changes in on-farm practice. On-farm visits would significantly change the cost structure that Castalia have developed. This needs to be explored in the report and possibly used to highlight a range of potential costs depending on the approach taken.</p> <p style="text-align: center;">(From formal comments): The eight hours (on average) assumed for each audit could only be achieved if councils adopt a desktop audit model and no site visits take place There are risks associated with a desktop only audit process. It is likely that in the first round of farm plan auditing there will be considerable uncertainty on the part of landowners that may require intervention, or at least ground-truthing of enough farm plans to be confident that they are robust. In the second cycle of auditing and reporting there are likely to be landowners who have not undertaken the actions that they committed to in the first cycle and a degree of ground-truthing will be necessary to ensure that requiring farm plans actually results in changes in on-farm practice. On-farm visits would significantly change the cost structure that Castalia has developed. Allowing for site visits would likely increase the cost per audit well above the 8 hour average assumed. I consider that the report would benefit from a discussion around this point and recognition that there will be both cost differences, but also qualitative differences in the regulatory outcomes and different regulatory compliance risks associated with different approaches.</p>	Resolved	We have changed our characterisation of this cost category based on multiple comments. We now understand that councils will NOT be responsible for auditing farm plans. We think that this should be clarified in the discussion document and the draft RIS because it is the source of considerable confusion (we note the Hawke's Bay RC's submission emphasises audit costs, and MfE's internal reviewer is also under the impression that RCs may incur auditing costs. In light of this, we have revised our method to instead focus on monitoring, verification and compliance costs, reflecting the reviewer's points.
	Regional councils have different business and engagement models that reflect a different reliance on desktop assessments and site visits, and different underlying levels of landowner regulatory compliance. Those councils that already have a high touch engagement model and regular site farm visits would find it considerably easier to integrate site visits for farm plan auditing into their other operations. For those council that currently have very low touch engagement models any move to include on-site assessments as part of an audit would involve significant cost.	Responded	We do not think it would be beneficial to consider different approaches or business models for meeting the new requirements. We appreciate that some councils will overperform while others will underperform based on the different approaches they take. We are concerned with estimating the most cost effective way for the average council to meet (rather than exceed or fall short of) the new requirements. With this approach, we do not think it is appropriate to speculate about the costs of different approaches or business models in this assignment.
	If one of the intended or possible uses of the report is to consider the level of assistance that may be provided to regional councils to implement the package, I consider that the reported cost to each council would require attention. This would usefully include ground-truthing the assumptions by working a bottom-up cost assessment (similar to the Waikato estimates that have been used to drive the analysis) for one or two other regions to test whether that approach gives a similar cost estimate to the approach used in the report.	Responded	

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<p>For a large number of the cost elements the underlying assumption is that the estimated impact on staffing at the Waikato Regional Council can be used as the basis for estimating the impact on other councils. All regional councils have different business models that reflect, amongst other things, key differences in the extent to which they engage with land owners, the balance of effort that they devote to providing advice as opposed to compliance monitoring, and the extent to which they have already embraced the use of farm plans and/or land use consents for farming activities. Waikato has a well-developed business model with high levels of engagement. This may tend to mean that for others, with a considerably less intense business model, the impact would be proportionately larger. Given the reliance on Waikato for estimating impacts I think the report would benefit from a discussion on the how “representative” it is and link that to the discussion on uncertainty.</p> <p>(from the formal review): For a large number of the cost elements the underlying assumption is that the estimated impact on staffing at the Waikato Regional Council can be used as the basis for estimating the impact on other councils. In the context of the report and its intended use, it is reasonable to use a method of this nature. It would be unnecessarily expensive to attempt to directly estimate the direct impact on each council. The issue is not so much the approach, as how the report deals with uncertainty and the variability of impact across the country and how material that may be for the overall cost estimate. All regional councils have different business models that reflect, amongst other things, key differences in the extent to which they engage with land owners, the balance of effort that they devote to providing advice as opposed to compliance monitoring, and the extent to which they have already embraced the use of farm plans and/or land use consents for farming activities. Waikato has a well-developed business model with high levels of engagement. This may tend to mean that for others, with a considerably less intense business model, the impact would be proportionately larger. Given the reliance on Waikato for estimating impacts I think the report would benefit from a discussion on the how representative” Waikato is and link that to the discussion on uncertainty in the overall cost estimates.</p>	<p>Responded</p>	<p>We use the waikato as an example of the breakdown between different business functions and the productivities of different business functions as part of the evidence to estimate many of the costs. However the additional staffing requirements is based on our professional judgements. This figure is then scaled to an 'average' council based on regional characteristics (so that under or overestimates based on local idiosyncracies do not affect the results). The estimated number of staff for the 'average' council is then multiplied by the fully loaded staff costs (which is an average of this figure for all councils nationally). As such, we do not expect the specifics of the Waikato Regional Council to overly affect our estimate of the total cost of the package. We reached our view of the costs of each new requirement using a range of sources and accounting for regional characteristics in these sources.</p>
<p>My quick assessment is that when you add up all of the additional staff it gets to around an average of 42 additional 42 staff in each regional council. I think it would be difficult for most regional councils to add 42 staff without having to address quite significant accommodation, management and systems issues. Using the standard unit costing of \$145 per hour works at the margin for costing additional staff, however, I think that the total number of additional staff goes beyond a change at the margin. I suggest that Castalia consider the extent to which there are other costs that will be incurred and at least reflect that in the commentary. From my direct experience, if either Environment Southland or the Otago Regional Council needed to add 42 additional staff they would need significant new office accommodation – even if the staff were distributed to locations across their regions</p>	<p>Resolved</p>	<p>We think it is reasonable to assume that the costs of office accomodation and materials are included in the \$145/hour cost recovery estimate. While we understand that office costs will be 'lumpy' at the individual council level, we expect this to even-out across all the councils in our analysis. We don't think it is feasible to comment on whether new facilities or management systems will be required, with what capacity and at what price in this analysis. Instead, we have added a paragraph near the end of Section 3.1 explaining this uncertainty.</p>
<p>Other the additional costs would include: one-off capital costs associated with additional vehicles, IT hardware, systems development (especially for farm plans which are unlikely to simply fit within existing council regulatory or consent systems). Again, I think these costs at least warrant discussion in the report. They add to uncertainty, but they would be very difficult to estimate</p>	<p>Responded</p>	<p>See our response in the cell above. With repect to the cost of additional vehicles, we also think it is reasonable to include this in the \$145/hour 'full cost' estimate. We also question whether vehicle costs (and indeed office costs) are in fact 'one off', or would more likely be spread over time as rental/lease costs over multiple operational areas of councils.</p>
<p>Given the scale of the change in staffing, there will be one off costs associated with recruiting and training new staff that are not reflected in the standard recovery of \$145/hour. Many of the disciplines that will require additional staff are already in short supply, and there will be demand for people with those skills from consultants and others who are supporting land owners to develop and lodge plans and consent applications. A national shortage of skilled people will push up labour costs. Significant in-work training is likely to be required to develop the competencies required and that will all add to costs. Again, I think this at least warrants discussion in the report</p>	<p>Responded</p>	<p>See the response two cells above. We acknowledge that this is likely to add material costs, but in the absence of modelling the labour market, we question whether these are knowable in advance.</p>

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<p>A number of the requirements include changes to plans and rules under the RMA. While the NPS requires changes that have a particular effect, there remains considerable scope for costly processes and potential appeals associated with, for instance, the specific thresholds for in-stream sediment and where they specifically apply, or the specifics of the rules that are developed to ensure that in-stream sediment levels reduce. Plan changes are costly, and generally involve considerable external costs associated with legal advice, advice and evidence from recognised experts, and significant public engagement and consultation. These costs can extend into the millions of dollars for complex and highly contested plan changes where high levels of expert evidence are required and there are complex and conflicting submissions reflecting irreconcilable views. Castalia's approach does not adequately addresses these costs. I think they ought to be included because the NPS will require a number of changes to each RPS and a number of regional plans. For some regional councils this will need to involve the whole architecture of their plans and possibly combining separate, standalone regional plans into more comprehensive documents. This will in part be addressed through the national planning standards – but I feel the report should at least consider these costs and whether or not they should be counted.</p>	<p>Responded</p>	<p>The new regulations will be required to be adopted in Plans directly, or given effect to without notification for the most part. We also note that Regional Councils deal with Plan changes relatively regularly (our review noted most councils are amending Plans on a 3-5 year cycle to respond to NPS direction, or specific measures. The resulting litigation and related advisory costs (planners, lawyers and so on) is a reasonably regular fixture in operating costs of all councils so we think it is reasonable to assume that it will be borne under baseline costs (would not be an increased cost to status quo). In any case, it is very difficult to predict the increase in costs associated with contentious matters after Plan changes from council to council.</p>
<p>Table 1.1 – it's difficult given the uncertainty about the level of regional council expenditure on freshwater, but I think it would be helpful to express the increase as a percentage of current regional council operating expenditure. Given that this increase would need to be funded by increases to rates or user charges (or both) expressing it as a percentage of total operating costs will put it in perspective. Most people will look at percentage annual increases in rates as the benchmark. That is always expressed as a percentage of total activity</p>	<p>Resolved</p>	<p>We have found data on RCs total operating expenditure and we have added a row to the table expressing this as a proportion of total operating expenditure.</p>
<p>Uneven distribution of costs (exec summary p iii) – the use of consented takes to allocate costs will be a bit misleading if the impact of the package is to require (in some regions) significantly more consents. I suspect that may well be the case in Otago for instance</p>	<p>Responded</p>	<p>The separation of costs by cost-drivers can only use data that are available now. We appreciate that the number of consented water takes will change, and this will change the proportional split of costs in this category. But we have no robust way of predicting how these will change, so we rely on data on current water takes as an imperfect indicator.</p>
<p>Introduction (page 1) – the text does not consistently deal with <b>additional</b> costs, it refers to “total administrative costs”, “the costs of new requirements”, “administrative costs”, and “the costs estimated here”. It would be useful to have a consistent and clear definition of the focus of the report – which is presumably on “additional costs”.</p>	<p>Resolved</p>	<p>We have made some adjustments to clarify what we mean in each case. The introduction still uses several different terms, because it notes several different concepts discussed in different sections.</p>
<p>Section 2 page 2 – the first paragraph states “We have assessed these new requirements to identify the exact requirements for new resources ...” – given the uncertainty that is involved these should not be referred to as “exact requirements”.</p>	<p>Resolved</p>	<p>We have made this change. Thank you.</p>
<p>Page 4 second box – ply should be apply.</p>	<p>Resolved</p>	<p>Thank you, we have made this change</p>
<p>Page 4 – Improving contact recreation – this approach will only be correct if the contact recreation monitoring currently undertaken is comprehensive enough to meet the new requirements.</p>	<p>Resolved</p>	<p>We came to this view based on the information in MfE's draft RIS. This states that monitoring costs will be the same because "councils already monitor recreational sites during the bathing season". The new regulations do not increase requirements on councils beyond this.</p>
<p>Page 4 – Māori involvement – I think this is more significant than Castalia have assumed, but it will vary across the country depending on the nature and depth of engagement between each council and the relevant iwi and hapū. For some, I suspect this will require a wholesale shift in the nature and basis of relationship and is likely to include a requirement to resource hapū to effectively engage.</p>	<p>Responded</p>	<p>The relevant row in Table 2.1 acknowledged a range of additional costs on councils, including the need to support hapū/iwi through co-governance support funding. This table focuses on overall costs at a national level. It does not discuss how these may be distributed between councils (which is explored in Section 3.2). Nor does it quantify the costs - this is done in Section 3.1. We agree that these costs are likely to be substantial, but we think our description of these costs (in qualitative terms) is in keeping with the other regulation in Table 2.1.</p>

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<p>Across the regional councils there is considerable variation in the current level of involvement by Māori in freshwater management and in the extent to which a long-term vision for Te Mana o Te Wai has been developed. This reflects the different mix of pre and post-settlement iwi and the underlying robustness of relationship and partnership between regional councils and the iwi and hapū within whose ropū they operate. The cost of delivering meaningful involvement in freshwater management will vary across the country depending on the nature and depth of that engagement with relevant iwi and hapū. For some, I suspect this will require a wholesale shift in the nature and basis of relationship and is likely to include a requirement exceed 1.5 additional FTEs per council.</p>	<p>Responded</p>	<p>As above, we have acknowledged all of the relevant costs in qualitative terms. We also appreciate that councils have made uneven progress (and will have considerably different approaches to these new requirements). Some councils will considerably overperform relative to the requirements in the EFW package, but we are not attempting to estimate the costs this will entail, we are only attempting to estimate the costs that RCs face to comply with the new regulations. Overcompliance (and indeed non-compliance) were not part of our project's remit.</p>
<p>Page 5 second to last box – I believe these costs are likely to be substantial. This goes to the point made above about the costs of plan changes. I think it warrants further consideration</p>	<p>Responded</p>	<p>The new regulations will be required to be adopted in Plans directly, or given effect to without notification for the most part. We also note that Regional Councils deal with Plan changes relatively regularly (our review noted most councils are amending Plans on a 3-5 year cycle to respond to NPS direction, or specific measures. The resulting litigation and related advisory costs (planners, lawyers and so on) is a reasonably regular fixture in operating costs of all councils so we think it is reasonable to assume that is will be borne under baseline costs (would not be an increased cost to status quo). In any case, it is very difficult to predict the increase in costs associated with contentious matters after Plan changes from council to council.</p>
<p>Page 6 second to last box – this will also impose compliance and enforcement costs which should be considered</p>	<p>Resolved</p>	<p>We have noted compliance and enforcement in the right hand column. We have also added an additional category to include compliance and enforcement costs.</p>
<p>Page 7 second to last box – this will also require monitoring and potentially enforcement activity which should be considered, or at least noted</p>	<p>Resolved</p>	<p>We have added this to the table, and adjusted the method we use to estimate the cost of this requirement to better account for monitoring and compliance costs.</p>
<p>Page 8 second paragraph – councils will only be able to debt fund capital expenditure that is relevant to this activity. Councils must operate a balanced budget and other than in exceptional circumstances do not borrow to fund operating costs</p>	<p>Resolved</p>	<p>We have removed the reference to debt funding in light of this insight.</p>
<p>Page 8 third paragraph – probably needs to note that regional councils are not all at the same point in implementing the 2017 NPS and that means that the impact of these additional costs will vary depending on where they start from</p>	<p>Resolved</p>	<p>We take your point, and we have added this detail to the paragraph you identified.</p>
<p>Page 10 Table 3.3 – “non-notified content” should be “non-notified consent”.</p>	<p>Resolved</p>	<p>Thank you, we have corrected this typo.</p>
<p>Table 3.4 – without reference to the detail of the MfE Draft RIS it is difficult to follow this approach – the reference to reverse engineering does not provide a great deal of confidence</p>	<p>Resolved</p>	<p>We have changed this approach based on discussions with the policy authors at MfE. It appears the cost estimate reported in MFE's draft RIS is not an administrative cost and is therefore not comparable to the other costs we have estimated here. This cost is now estimated using a similar method to many of the other cost categories.</p>
<p>Table 3.7 – some councils do not have the equivalent of Waikato’s Land Management Advisory Services – for them the impact of this will be considerably larger. I think this warrants some consideration</p>	<p>Resolved</p>	<p>This is dealt with above in our response to the comment on how we reached a view on costs from a range of sources.</p>
<p>Table 3.11 – same comments as made above about engagement with iwi and hapū</p>	<p>Resolved</p>	<p>See response above.</p>
<p>Table 3.15 – needs to also consider the costs of monitoring, compliance and enforcement activity associated with takes of this nature (which are likely to have high levels of technical non-compliance with water measurement standards).</p>	<p>Resolved</p>	<p>We take your point. We have added additional costs for monitoring, compliance, and enforcement for measurement and reporting of water takes. See the new method described in Table 3.15. This substantially increases the cost associated with this requirement.</p>
<p>Page 16 - The estimated cost for a new consenting regime for stock holding areas and feedlots appears to only be the cost for processing consent applications and does not seem to include likely additional compliance and enforcement costs. These costs will not be material but will be real.</p>	<p>Pending</p>	<p>We have added this cost category and estimated the additional personnel required.</p>
<p>Page 17 – first paragraph – “les than a third” should be “less than a third”</p>	<p>Resolved</p>	<p>Thank you. We have resolved this typo.</p>

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	<p>Page 19 – I have no way of knowing whether these are reasonable assumptions or not. This warrants some discussion because it goes to the level of uncertainty – which is one of the major themes that needs to be considered (From formal comments): The discussion on pages 17 and 18 and Table 3.19 explores the costs to each regional council. Table 3.19 appears to set out the cost drivers and the assumed proportion of the variable cost that have together been used to allocate variable costs to each region. The report provides no explanation of the methodology that has been used here. Neither does it provide any justification for the assumed proportion of variable costs related to each cost driver. In the absence of any explanation or justification of these assumptions I have no way of knowing whether these are reasonable assumptions or not. This goes directly to the reliability and usefulness of the reported costs by region.</p>	Resolved	<p>The assumptions in this table do not affect the overall costs reported, they only affect the distribution of costs between Regional Councils. With respect to whether these assumptions are reasonable or not, they are based on our professional judgement. Evaluation of these assumptions should be based on professional judgement as well. We could add high and low estimates for each of the proportions listed in the table and include overall uncertainty bars, however given the large uncertainties from multiple assumptions we think this would give a spurious view of the breadth of uncertainty. Instead, we have added further explanation of the method applied and further qualifying language to the text of the report explaining these uncertainties in general terms.</p>
	<p>Page 23 – cost of improving water quality by better farm practice are both a factor of the number of farms and the business model that is used. Significant on-farm engagement is more expensive, but delivers faster and more consistent behaviour change (this goes back to one of the themes discussed above).</p>	Responded	<p>We take your point. However, we have been asked to estimate the costs of the regulations, and we are interpreting this as the minimum cost of compliance with these regulations. We acknowledge that a more intensive approach with significant on-farm engagement would deliver benefits more quickly, but it will also be more expensive and there is no explicit requirement that Regional Councils take this approach. We therefore do not consider these alternative business models, and we do not think this study is the place to do so.</p>
	<p>Page 27 – the Auckland Council targeted rate for water quality is (from memory) focused significantly on improving water quality in Auckland’s harbours. The rate includes funding for both wastewater and stormwater infrastructure to limit over-flows. This activity is a-typical for a regional council and cannot really be compared with what Environment Canterbury funds</p>	Responded	<p>We acknowledge in the report that the reported expenditure of councils on freshwater (and other environmental monitoring) is incomplete and inconsistently reported and therefore the data is only a very rough estimate.</p>
Additional Points from Abdreas' Chat with Thomas - to add	<p>Can we quantify where the 2020 Package replicates 2017 NPS requirements?</p>	Resolved	<p>Dealt with in new section 4.2</p>
	<p>The analysis does not address the benefits of the requirements on regional councils of the 2020 Package. These could be significant</p>	Resolved	<p>We have made this point more prominent.</p>
Irene Parminter	<p>I can provide estimates of farm numbers affected by the “addressing excessive N” proposal soon (based on the original set of catchments) – this would improve the accuracy and usefulness of the report</p>	Resolved	<p>We have changed our characterisation of this cost category based on multiple comments. We now understand that councils will NOT be responsible for auditing farm plans. We think that this should be clarified in the discussion document and the draft RIS because it is the source of considerable confusion (we note the Hawke's Bay RC's submission emphasises audit costs, and MfE's internal reviewer is also under the impression that RCs may incur auditing costs. In light of this, we have revised our method to instead focus on monitoring, verification and compliance costs, reflecting the reviewer's points.</p>
	<p>The report only looks at the cost of setting the threshold – Castalia says it uses the midpoint of the LGNZ submission costs = \$6000. (I couldn't find this in the LGNZ submission – that's not a criticism but it would be good if they could tell me where it is in the submission). Does this assume that all other council costs are recovered?</p>	Resolved	<p>On page 345 of the PDF of LGNZ's submission, the authors state "The concept of benchmarking in the intensification and N-cap proposal will come with significant cost. Benchmarking for nitrogen alone is estimated to cost \$2,000 to \$10,000 per farm" - we took \$6,000 as the mid point of these two estimates. We also include an annual cost for consenting and compliance in our updated report. We assume monitoring for this attribute is covered by other regulations, so we do not double count it here.</p>

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	<p>It looks like the farm plan costs are based on a misunderstanding. Auditing will not be done by councils. Councils will receive audit reports</p>	Resolved	<p>We have changed our characterisation of this cost category based on multiple comments. We now understand that councils will NOT be responsible for auditing farm plans. We think that this should be clarified in the discussion document and the draft RIS because it is the cause of considerable confusion (we note the Hawke's Bay RC's submission emphasises audit costs, and MfE's internal reviewer is also under the impression that RCs may incur auditing costs. In light of this, we have revised our method to instead focus on monitoring, verification and compliance costs, reflecting the reviewer's points.</p>
Consolidated Comments from Policy Authors	<p>Sediment The local government costs reported in the interim RIS explicitly excluded administrative costs and solely consisted of funded works that are not legally required but that councils undertake on a large scale. Did you work backwards from those figures to determine administrative costs? And if so, why did you take this approach? Would you consider whether it would be appropriate and feasible to assess new administrative costs using an appropriate method similar to other new attributes? Also, would it be possible to differentiate costs for suspended sediment and deposited sediment?</p>	Resolved	<p>In working through MfE's draft RIS we had assumed that the costs reported in each of the appendix tables (Table 7 for sediment) were consistent and showed MfE's initial assessment of the costs of the new regulations (the title of the table is 'summary of the assessment's costs and benefits'). From the reviewer's comment, it is clear that the figure (listed in row 3 column 3 of this table) does not reflect the costs and benefits of the proposed regulation, but actually something quite different. In light of this information, we have re-evaluated the administrative costs of sediment management using the method we applied to other requirements under the package. Using this method, we specify the additional requirements for deposited sediment (which we estimate to require one additional FTE for the Waikato regional council for monitoring purposes).</p>
	<p>River flows and water levels: How did you decide on the number of extra staff that Waikato Regional Council would require given that the proposed policy would rely on councils using their existing hydro data and their existing evaluation in terms of the effectiveness of their existing environmental flows (the RMA requires them to do this every five years). Why did they pro-rata that number of staff across the country according to consented volumes when the policy applies at the FMU scale and so it would seem to be more appropriate to pro-rata it out according to the number of FMUs. The policy does not, and cannot, require councils to review water permits. This is something only councils have the discretion to decide to do and any choices they make about that must be evaluated in their own report produced under section 32 of the RMA</p>	Responded	<p>We judged the additional staffing requirements as "We estimated that Waikato Regional Council would need a total of four additional FTEs, comprising one extra FTE in the Hydrology team (currently 10), one extra FTE in the Integrated Catchment Management team (currently 8) and two more resource officers to manage consents in the Inland Waters team (currently 6)". We note that the new regulations go beyond a measuring and monitoring of water levels and water takes, and require councils to identify at risk waterways and prevent stream loss when it can be practically avoided, or require remediation, mitigation, or offsetting. We see these as significant compliance and consenting tasks. With respect to the cost of the requirement to "Measure and Report on Water Takes", we reviewed the ex post estimate of the cost of managing telemetry data in the Manawatu-Wanganui region (\$180,000) reported in the evidence in MfE's draft RIS. This equates to an additional 0.65 FTEs per council, which we see as reasonable. We welcome any more detailed information on these costs that you have available.</p>
	<p>Excessive Nitrogen: Table 1.2 states that the costs are annual i.e. every year. Whereas for addressing excessive nitrogen, Table 3.3 makes it clear this is a one-off cost for setting the threshold. I am not sure how many other items in Table 1.2 are of similar nature but it makes a significant difference</p>	Resolved	<p>We have edited this cost category to separate recurring costs from one-off costs for threshold setting. We have added a section on one-off costs that includes threshold-setting for reducing excessive nitrogen, and mapping of existing wetlands.</p>
	<p>Using the current number of consents as a way of estimating some costs is reasonable given the purpose of the report. It should be noted however, that the package is likely to result in some councils requiring quite a large number of consents where they currently have a permitted activity framework. Where this occurs, using the current number of resource consents to estimate future costs will result in an under-estimate of the costs</p>	Resolved	<p>I don't think we do rely on current consenting rates to estimate any of the costs. We look at consenting costs (per consent), but not at current numbers of consents.</p>

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Peter Winder Formal Review Additions	<p>In this instance the average fully loaded staff cost of \$145 per hour for staff is a reasonable approach but has limitations. Not all councils seek to recover all of their costs from consent applicants. This is intended to reflect the public good dimension of effective regulation. For some this 'under-recovery' is built into the charge out rate, for others it is reflected in policies which may mean the first hour of time is not charged, or the expectations of billable hours are lower than would otherwise be the case. This means that the average fully loaded charge out rate may not reflect the current actual total cost.</p>	Responded	<p>The \$145 fully loaded cost is sourced from the actual hourly rates that Regional Council's charge to applicants. While the fixed sum costs for consents could reflect some undercharging for public good reasons, the hourly rate is more likely to more reflect the actual costs. We averaged the hourly rates from all Regional Councils and all types of roles. Most hourly rates were around the same level, with outliers up and down - the average of the median hourly rates by role is \$146. Therefore we are confident that the \$145 average is a good estimate of the true marginal additional hourly cost</p>
	<p>Using the fully loaded charge out rate for staff will work well at the margin for costing additional staff. However, I consider that the total number of additional staff goes beyond a change at the margin. This raises an issue about the timing of some costs, as opposed to the overall quantum of costs. From my direct experience, if either Environment Southland or the Otago Regional Council needed to add even a relatively small number of additional staff they would need significant new office accommodation – even if the staff were distributed to locations across their regions. There would be related costs to increase the size of their vehicle fleet (especially if sites visits are part of the audit process). Over time these costs would be reflected in the fully loaded staff cost. However, the incidence of the costs will be at the beginning of the implementation period not spread out evenly over it.</p>	Resolved	<p>We expect that the costs of office accommodation and materials are included in the \$145 estimate. While we understand that office costs will be 'lumpy' at the individual council level, we expect this to even-out across all the councils in our analysis. We don't think it is feasible to comment on whether new facilities or management systems will be required, with what capacity and at what price in this analysis. Instead, we have added a paragraph near the end of Section 3.1 explaining this uncertainty.</p>
	<p>In a related sense, the likely scale of changes in staffing will drive early recruitment and training costs that will be lumpy at the outset. Many of the disciplines that will require additional staff are already in short supply nationally, and there will be demand for people with those skills from consultants and others who are supporting landowners to develop and lodge plans and consent applications. A national shortage of skilled people will push up labour costs. Significant in-work training is likely to be required to develop the competencies required and that will all add to costs and mean that it will take time to reach optimal processing times. I think this at least warrants discussion in the report because it goes to both the profile of costs, but also to implementation risks. If the regional councils are unable to recruit and train the necessary staff, they will not be able to implement the package.</p>	Resolved	<p>As above, we have described these additional costs in qualitative terms at the end of Section 3.1. We have also acknowledged their contribution to uncertainty.</p>
	<p>Perhaps the most significant other cost will be a systems development cost associated with the management of this new type of farm plan and the number of farm plans that will need to be maintained. Some councils already manage farm plans. Others have regulatory or consent systems that are not equipped to manage the nature or volume of farm plans required by the package. The scope of possible changes to regulatory or consent systems which are likely to be required is unknown and would be difficult to estimate. They may add considerable front-end costs to implementing the package. The need for IT systems change would also add to the implementation risk of the package. I think these issues at least warrant discussion in the report. The nature and timing of the costs discussed above means that the estimated cost of new requirements set out in Figure 4.1 (showing annual expenditure between 2021 and 2026) is likely to understate both total costs and the costs in the early years.</p>	Resolved	<p>We have changed the graph to remove the indication of accuracy, and framed the text as an estimation. We also added in the IT costs as a front-loaded cost that would predate the implementation date.</p>
	<p>The report estimates the total cost of the package for regional councils nationally and the average cost per council. This is the key number required, however, it would have far more meaning, and make a more meaningful contribution to the policy debate and consideration if it was put into the context of current regional council expenditure. It is difficult to express the increase as a proportion of existing expenditure on freshwater because of the different ways that regional councils report their activities. But it would be helpful to express the increase as a percentage of total current regional council operating expenditure. Given that this increase would need to be funded by increases to rates or user charges (or both), expressing it as a percentage of total operating costs would put it in perspective.</p>	Resolved	<p>We have found data on RCs total operating expenditure and we have added a row to the table expressing this as a proportion of total operating expenditure.</p>