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15th April, 2013

IPART

Level 8, 1 Market St

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NSW 2000

Dear Scott,

Re: Review of Supplementary Information Provided by Wyong Shire Council

Oakley Greenwood has been asked by IPART to review two submissions made by Wyong Shire Council (WSC) in response to IPART's Draft Decision, namely:

- "*Draft IPART Pricing Determination - Response by Wyong Shire Council - 15 March 2013*" ("Original Response"); and
- "*IPART Pricing Determination - Supplementary Wyong Shire Council Response 28 March 2013*" ("Supplementary Response").

Consistent with IPART's detailed request, we have focused our assessment on three specific issues contained in those two submissions:

- The level and allocation of corporate overheads;
- The backlog of maintenance expenditure due to revenue shortfalls from drought restrictions; and
- Additional operating expenditure requirements at Mardi WTP.

IPART has sought the following outputs from this consultancy:

- The recommended level of efficient operating expenditure in each year of the new determination period (2013/14 to 2016/17); and
- The rationale and basis for any recommended increase/decrease in our assessment of WSC's efficient operating expenditure.

For each of the three issues identified above, the following sections of this letter set out:

- A brief summary of WSC response to IPART's Draft Decision;
- Issues that we have considered when critiquing WSC's response; and
- Our recommendation, including the amount of any recommended increase/decrease, and the rationale for making that recommendation.

Finally, before outlining our detailed response to this request, we note upfront that the timeframes provided for undertaking this work have, in many cases, limited our ability to undertake detailed, bottom up analysis of WSC's submissions. We have had to rely almost exclusively on the information provided in WSC's responses to the Draft Decision, as well as information contained within WSC's original submission, rather than obtaining further detailed information directly from WSC or from other corroborating sources.

Level and Allocation of Corporate Overheads

Summary of Response to Draft Decision

WSC's response is structured around three issues:

- **Inappropriate methodology used to assign overheads**: To summarise, WSC expressed a view that there was a clear and direct nexus between the operating expense incurred by a business unit, and the effort required by enabling functions, and therefore, our initial recommendation to reject their use of a simple "proportion of total opex" approach to allocating corporate costs was incorrect. WSC also made reference to the relative consistency of the outcomes under their proposed corporate allocation methodology, with those developed by PWC with regards to the expected cost of staff and shared resources that would transfer to the Central Coast Water Corporation from other parts of the organisation (i.e. support functions).
- **Reference to costs that are not part of the Corporate Overhead**: WSC's Supplementary Response to the Draft Decision provides a concise description of this issue[1]:

  > *As noted in Council's initial response to the draft determination on 15 March 2013, we believe that Oakley Greenwood have confused direct (product specific) overheads with Corporate (shared) overheads in their assessment. The Oakley Greenwood report, and subsequently the IPART draft determination, makes reference to Roads and Road Management which is a product specific direct overhead and does not even form part of the Corporate Allocation.*
  >
  > *We believe these represent a reasonable view of costs that should be allocated to an efficient water and sewerage business. We accept Oakley Greenwood's views that some of the planning aspects may not be applicable but do not see these as material.*

- **Rejection of Corporate Governance Costs as an acceptable Corporate Overhead:** WSC's Supplementary Response to the Draft Decision provides a concise description of this issue[2]:

  > *When the Central Coast Water Corporation (CCWC) is in place, the CCWC Board will have ultimate decision making powers for the Corporate entity. However, until that time, Council fill the role of this decision making body. Councillors are in effect the "Board of Directors" for the water and sewerage business and as such Council deems the inclusion of governance and election costs appropriate to include in Corporate overheads.*

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1 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council* - 28 March 2013 – page 13

2 Ibid

Issues that we have considered when critiquing WSC's response

The first issue identified by WSC relates to our rejection of their proposal to change their methodology for allocating corporate costs for the purposes of developing opex forecasts for the next regulatory period. As background, we noted in our Final Report that WSC had been very transparent in the fact that they had changed their approach to allocating corporate costs for the purposes of developing their operating expenditure forecasts[3]. As WSC explained in their submission, '*the revised approach now distributes overheads across Council activities on a proportionate basis according to the percentage of total operating expenditure borne by each activity*'[4]. This change was expected to lead to an additional $900k[5] of corporate costs (which equates to around an 8% per annum increase) being allocated back into the water and wastewater business from 2012/13 onwards.

Despite the explanations provided by WSC, we expressed concerns in our Final Report with regards to the driver for the change; the extent to which it would meet generally accepted criteria underpinning such a decision; and most importantly, the extent to which it would lead to corporate allocations that are consistent with a prudent and efficient water and wastewater service provider. We therefore recommended that IPART not allow the increase in water and wastewater corporate costs that stems from this change in WSC's corporate cost allocation methodology. An extended discussion of our considerations and rationale for making this recommendation is contained in our Final Report[6], which we do not propose to repeat here.

In their Supplementary Response to IPART's Draft Decision, WSC expressed a view that there was a clear and direct nexus between the operating expense incurred by a business unit, and the effort required by enabling functions. They provided the following examples to demonstrate this nexus[7]:

- *Finance manage debt almost exclusively on behalf of the water and sewerage and this has a direct link to borrowing costs in the water and sewerage operational expense (this wouldn't be captured if we were to allocate on another basis, for example FTE numbers or revenue).*
- *The building block model by definition calculates pricing based on (among other things) operational expense. Therefore any activities related to revenue (for example, the rates and revenue team, credit management, customer care, payment processing etc.) has a clear and tangible link to the expenses incurred by water and sewerage.*
- *Accounts Payable pay expense invoices. Simple, low dollar accounts do not require substantial reconciliation, but larger materials and contracts invoices require effort related to the amounts involved.*
- *IT licence costs, IT support costs and IT consumables are driven by user numbers and/or transactions. The information stored in IT systems is generally related to the level of activity which has a direct link to cost.*

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3 OGW – "*Review of Capital and Operating Expenditure for Wyong Shire Council*" – 26th November, 2012 – page 27

4 Wyong Council – *"Submission to IPART 2013 – 2017"* – page 32

5 Email from Ian Johnson received on Thu 4/10/2012 2:28 PM

6 Primarily, in pages 27-29

7 Wyong Shire Council – *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council*– 28 March 2013 – page 12

- *HR effort is driven predominately by the number of employees and resulting staff operational expense. Given staff costs account for 30% of Total Council Operating Costs, the nexus is clear.*

First and foremost, to be entirely clear, we never said that there is not (or never) a nexus between the proportion of operating expenditure incurred by a business unit, and the effort required by enabling functions, nor that this allocation methodology should *never* be used. Rather, what we were saying is that this will not *always* be the most accurate driver, for all business units, with respect to all enabling functions. The simple, 'proportion of opex approach' proposed by WSC implies that this is in fact the case, as the proportion of total operating expenditure *is the only allocation methodology adopted in all cases*. Again, to be clear, in some specific cases, the 'proportion of total opex' approach may in fact be the most appropriate driver of an enabling function's costs, given the levels of accuracy produced from its use relative to the use of other, alternate allocation methodologies, in conjunction with an assessment of the costs associated with administering each of the feasible allocation methodologies. However, our view was, and still is, that it is highly unlikely that this will be a reasonable assumption to adopt in all cases (i.e., for all business unit-enabling function relationships).

A more sophisticated matrix approach, which, even at a broad level, contemplates the use of other possible drivers/relationships where relevant, would, in our view, be more appropriate. Based on high level descriptions of WSC's previous approach contained in its Original Submission, we assume that it at least allowed WSC to consider other cost drivers, where relevant[8].

With regards to some of the specific examples provided by WSC in their Supplementary Response, we make the following observations:

- *"Finance manage debt…"* – if finance manage debt (we assume corporate debt, not customer debt owed to the company) almost exclusively on behalf of the water and sewerage business, then the proportion of operating expenditure may be a reasonable allocation methodology to adopt, *if* that proportion is based on the proportion of borrowing costs incurred by each business unit. In the absence of this, any higher level allocator, for example, basing the allocation on the proportion of total operating expenses (which is our understanding of WSC's approach[9]) is in fact, unlikely to be a reasonable allocator. An example of perhaps a more appropriate allocator, and one which would appear to be relatively simple to adopt, would be to allocate the enabling functions related to this specific expense based on the proportion of overall debt applicable to the water and wastewater business unit, relative to Council as a whole (e.g., if water and wastewater holds 90% of total debt, it incurs 90% of the costs of all of the debt management enabling functions);

8 For example, in its Original Submission, WSC indicate that its previous approach was based "on a complex matrix of cost drivers", which, to our mind, indicates that it could choose between a variety of various cost drivers, depending on the circumstances prevailing in relation to the corporate cost being assessed.

9 For example, in their Original Response to the Draft Decision, WSC state on page three that Council "reinforces that it operates a full corporate costs distribution model, whereby corporate costs are allocated across the entire organisation based on each business's *proportion of total expenditure*" [emphasis added].

- *"The building block model…"* – clearly, operating expenditure is a driver of pricing outcomes under the building block model, however, so too is capital expenditure, the regulatory asset base, depreciation lives, the WACC etc. Taken to the extreme, a low capital intensive, but high opex business may be charged more in revenue management costs under WSC's proposed approach, relative to a high capital intensive, but low opex cost business, despite them having the same revenue (and therefore, assumed revenue management) outcomes. An alternative, yet simple, approach that could be adopted under a more flexible, matrix based allocation methodology, would be to adopt a proportion of total revenue driver for allocating such costs;
- *'Accounts Payable pay expense invoices…"* – we agree that for such expenditure, there is likely to be a nexus between overall business expenditure, and the level of effort required to undertake the accounts payable function. However, it could be that a combined expenditure driver (including operating and capital expenditure) may be a more appropriate driver than simply relying on the proportion of total operating expenditure. This is particularly so if it is "larger materials and contracts invoices" (which may be particularly pertinent to capital expenditure items) that are a key driver of the enabling functions effort. A flexible, matrix based approach would allow this cost allocation approach to at least be considered;
- *"IT licence costs, IT support costs…"* – as WSC states in its supplementary response, this is driven by user numbers and/or transactions, which, may or may not correlate well with total operating expenditure. This will depend on the driver of those IT costs (e.g., number of transactions versus staff numbers), and / or, the operating model adopted by the business, for example in-source, which may necessitate licence costs and support costs being incurred at a corporate level, and then allocated out, versus out-source, which may lead to the contractor incurring those IT costs, and then charging them back to the client via consolidated unit rates. In this latter case, the proportion of opex approach may inappropriately attribute corporate IT costs to a product line, on top of IT costs that are already embedded within operating expenditure levels (via unit rates charge by contractors); and
- "*HR effort…"* – again, overall operating expenditure may be a reasonable approximation of the underlying cost driver, however, as WSC state, this cost is predominately driven by the number of employees, which we note is a key (but not the only) driver of staff related operating costs (the other is the pay rates of those employees). However, this still does not take account of the impact that items such as materials, electricity and bulk supply costs will have on the proportion of total operating costs in each business unit, but which are unlikely to materially impact upon HR's effort.

To reiterate, the commentary above is not to suggest that the proportion of total operating expenditure is not a valid cost driver under *any* circumstance, but rather to highlight that it is unlikely to be the most valid cost driver under *all* circumstances, and therefore, consideration of other drivers, under a matrix form of allocation, which we understand is enabled under WSC's current approach, should lead to more appropriate (and accurate) outcomes.

Following on from this above point, we note WSC's comments in its Supplementary Response that[10]:

10 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council- 28 March 2013* - page 12

> *Oakley Greenwood, in their Final Report on Gosford City Council actually recommend that Gosford adopt a simplistic allocation methodology and reference several different models that may be appropriate (including revenue share, share of asset value, share of staff numbers etc.). Council has already performed this assessment and has adjudged that share of expenses provides the best allocation as it has the closest relationship with Corporate effort.*
>
> *In the draft determination for Gosford (based on Oakley Greenwood's recommendation), it appears that IPART has used an even more simplistic approach and simply assigned a simple percentage based on "number of directorates". 20% therefore assigned to water and sewer as one of 5 directorates. This appears completely incongruous with challenging the Wyong model and seeking further granularity.*

For clarity, the difference between Gosford's use of Directorates (and our support of this approach) as an allocator, and WSC's use of 'proportion of total opex', is that Gosford City Council only use the number of Directorates to allocate certain, discrete corporate costs, rather than *all* corporate costs, which is the case with WSC's proposed 'proportion of total opex' approach. This was made clear in our Final Report for Gosford City Council, where we stated that[11] "*some costs, for example, those costs that relate to broader senior management costs (e.g., salaries of the General Manager), are allocated to the broader cost driver of "Directorate"…. Whilst OGW considers the use of the "Directorate" cost driver as being a reasonable proxy for the allocation of costs that "cut across" all of Council's function, it notes that the 25% (12% water plus 12% sewerage plus 1% stormwater) is not underpinned by any reasoned analysis of endeavour or effort*." In short, Directorates are used as a proxy for the level of effort devoted to each business unit, where it is not feasible (or efficient) to measure this directly. Rather than conflicting with our position, we consider that this in fact reinforces our view that a more flexible, matrix approach, which allows different cost drivers to be adopted depending on the enabling function in question, is appropriate.

Finally, we note that in its original response to the Draft Decision, WSC refers to figures provided by PWC in November 2011. These figures reflected PWC's forecasts of the cost of staff and shared resources that would transfer to the Central Coast Water Corporation from other parts of the organisation (i.e. support functions). Due to the timelines and information presented to us in undertaking this review, we are not in a position to critique or comment on the work undertaken by PWC, nor the veracity of the numbers that it has produced for the purposes of that assignment.

In conclusion, we originally recommended that IPART reject WSC's proposed change in its corporate cost allocation methodology, and therefore, the around $900k per annum increase in corporate costs allocated back into the water and wastewater business as a result of that change. Consistent with the discussion outlined above, we do not consider that there is anything in the additional information that WSC has presented in its responses to the Draft Decision that would dissuade us from maintaining this position.

In relation to the second issue - "*reference to costs that are not part of the Corporate Overhead*" – upon reviewing the additional information provided by WSC, we accept their position in relation to 'Roads and Road Management' cost not being part of the corporate overhead pool.

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11 OGW – *"Review of Capital and Operating Expenditure for Gosford City Council"* – 26th November, 2012 – page 27

As background, we note that this issue was broadly identified by WSC in response to our draft report. WSC stated[12] at the time that '*the categories you refer to are Responsibility Centres. The nature of these costs is management and planning initiatives for shire wide infrastructure that incorporates plans for water and sewer infrastructure [emphasis added].*' At the time, we did not read into the aforementioned statement that those categories did not even form part of the Corporate Allocation, rather, we read it as justifying why part of those costs should be allocated to the water and wastewater business (which we disagreed with at the time, for reasons outlined in our Final Report).

Notwithstanding the above, we take on face value the revised response provided by WSC, in that these are not directly allocated to 'Water and Wastewater'. Our initial approach removed these costs from the overhead pool that could be allocated, whereas, this should not have been the case, as they are already directly allocated to a 'Unit or Service' that is not water and wastewater. The impact of this reversal – pertaining to 'Roads and Maintenance' - is $431k per annum.

Finally, we take on face value WSC comment that they accept Oakley Greenwood's views that some of the planning aspects may not be applicable. Consistent with this, we have not investigated this issue in any further detail.

In relation to the third issue - *Corporate Governance Costs as an acceptable Corporate Overhead* – we highlighted this issue in our report, not because we proposed at the time to explicitly remove any costs associated with these functions from the base year (2011/12), but rather, to highlight that this was in fact a key driver of the increase in WSC's corporate costs between 2011/12 (our base year) and 2012/13[13]. More specifically, in our Final Report, we stated that[14]:

> *"Whilst we acknowledge that costs such as Board of Director fees and also legal and governance costs will still be required to be incurred once the CCWC is created, the subject of discussion here is the costs of Council elections. There is nothing here that changes our view that the election costs are not consistent with the costs that a prudent and efficient water and wastewater service provider would incur [emphasis added]."*

The above comment was made in the context of our observation that a sizable proportion ($780k of $3.5m) of the overall increase in corporate costs between 2011/12 and 2012/13 was due to 'Councillor Support - Election Costs' – which, the detailed comments in the information provided by WSC, indicated were "*specific Costs related to FY12 Election*"[15]. There is no additional information contained in WSC's response to IPART's Draft Decision that would dissuade us from the view that council election costs are inconsistent with a prudent and efficient water and wastewater service provider, therefore, they are not a valid reason for increasing the overall corporate cost pool that in turn should underpin the derivation of the corporate costs that are attributable to the water and wastewater business.

12 Email from Ian Johnson on Wed 24/10/2012 12:11 PM

13 See page 30 – 31 of our Final Report for the detailed discussion on this issue.

14 OGW – "*Review of Capital and Operating Expenditure for Wyong Shire Council*" – 26th November, 2012 – page 31

15 Email from Ian Johnson on Wed 24/10/2012 12:11 PM

As an aside, we note that the reason for *not* removing any "election" related costs from the base year was because the information presented to us as part of the review – namely WSC's Corporate Overhead model – did not identify the costs associated with Council elections as a specific line item. Therefore, we had no way of identifying the overall amount of such costs included in the base year. Furthermore, we did not pursue this matter further with WSC as our view was that it was unlikely that a material amount of election related operating costs would be incorporated into the base year corporate cost pool, due to the intermittent nature of Council elections (i.e., they don't occur every year, and information provided by WSC indicated that the election occurred in the year after the base year).

Our recommendation – Corporate Overheads

Consistent with the above, we recommend that IPART increase WSC's corporate overhead amount by $431k per annum. The rationale for this change is outlined above.

The backlog of maintenance expenditure due to revenue shortfalls from drought restrictions

Summary of Response to Draft Decision

WSC's submissions to IPART on its Draft Decision highlighted that our assessment (and subsequently, IPART's Draft Decision) pertaining to WSC's operating expenditure allowance was based on 2011/12 expenditure levels. WSC considered this to be an inappropriate and unsustainable year to use as a base.

WSC state in their Supplementary Response to the Draft Decision "*the resourcing and spend levels prevailing throughout 2011/12 were not, and were never intended to be, a sustainable operating model*"[16], and that they made a conscious decision to run at skeleton staffing levels in that year for two primary reasons[17]:

- *2011/12 income was substantially below forecast due to demand not rebounding to the level expected following the drought and the associated water restrictions that were in place. A number of changes were made during this period in order to mitigate the financial impact, including reductions in staffing, service levels and maintenance activities. These changes were made for prudent and responsible financial management purposes under the circumstances existing at the time.*
- *In anticipation of the merger of Wyong Shire Council and Gosford City Council water businesses (The Central Coast Water Corporation, CCWC), Council made a conscious decision to reduce the backfilling of roles in order to keep future redundancy and change management costs down. As noted in our initial response to the Draft Determination, it has now become clear that the establishment of the CCWC is at risk (particularly between 2013 and 2017) due to the inability to fund establishment costs by either Council.*

16 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council*- 28 March 2013 – page 2

17 Ibid

In their Supplementary Response to the Draft Decision, WSC also provided details of areas where they considered levels of service to have reduced as a result of lower levels of resourcing. They also provided information with regards to near-term historical levels of resourcing (FTEs), as well as the impact of those resourcing decisions on overtime costs. For a more fulsome understanding of WSC's concerns, please refer to WSC's Supplementary Response to IPART's Draft Decision.

Issues that we have considered when critiquing WSC's response

In reviewing the additional information provided by WSC, a number of issues spring to mind.

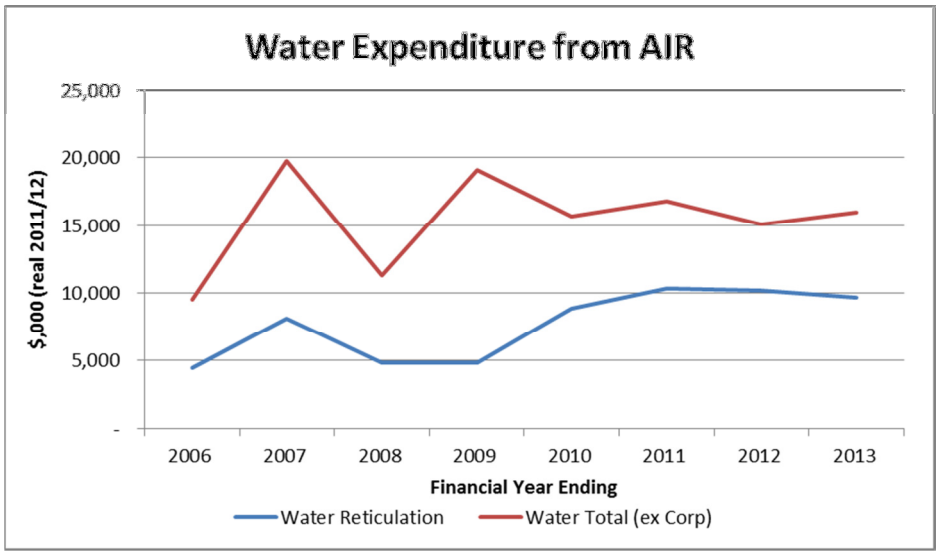
These are, in no particular order:

- *Limited discussion of this issue in the Submission* – There was virtually no discussion of the issues associated with a backlog of maintenance, change in FTE's, or anything of this ilk, in WSC's original submission, which, itself, raises questions as to its overall importance as a driver of future operating expenditure. That said, we do acknowledge that WSC did bring this issue up in their response to our Draft Report. In particular, WSC indicated that the backlog (or shortfall) for water as at 30 June 2012 was $262k (on a $4,444k current annual maintenance spend), which equates to a required increase of 5.9%. For wastewater, this shortfall is significantly less, at $95k (or 1.75%). Our overall response at the time was to point to our use of the base year (2011/12 in this case) as being the best estimate of outturn expenditure required to deliver existing levels of service, and moreover, that this was consistent with the assumption that businesses respond to the efficiency incentives provided by independent economic regulation, with multi-year price paths. Further, we noted that in any one year, there are likely to be some costs that are higher than business-as-usual (e.g., in this case, overtime might be an example) and some costs that are lower than business-as-usual (e.g., salaries of FTEs), however, we considered that a forecast of total operating expenditure using the base year approach is less likely to include estimation errors, relative to normalising for individual components of the overall opex budget, which may in fact be inter-related with other cost components (this issue is discussed in more detail below);
- *Quantitative Evidence* – We note that in its Supplementary Response, WSC presents information that it considers demonstrates the linkage between lower levels of maintenance (which, WSC expressly states, was driven by financial constraints placed upon the business), and lower levels of service, such as increasing water quality complaints and increased storm and ground water inflow and infiltration (which affects WSC's ability to meet its allowable discharge volumes). Whilst we do not question the veracity of the outturn levels of service presented, it is difficult for us to reach a definitive conclusion as to whether these outputs (or even what proportion of these outputs) have been driven by reduced historical levels of maintenance, or other factors or drivers. There are a number of reasons for this:
    - WSC has presented only limited quantitative evidence in its Supplementary Response (with the exception of the number of water meters being replaced) with regards to the magnitude of the reduction in levels of maintenance (both activity levels and dollars). This makes deriving a definitive relationship between the inputs (maintenance levels) and outputs (service standards) very difficult;

- We are unable to corroborate the comments contained in the Supplementary Response with information contained in the Original Submission, or for that matter, other publically available information, in relation to the drivers of the change in historical service levels. For example, the discussion in the Original Submission, in particular, Section 2.3.1.4 ('Non Compliance Issues – Service Level Outcomes') does not identify a backlog of maintenance, reduced FTE's or anything of this ilk as a driver of any non-compliance with required levels of service. That said, we note that this section of the Original Submission was focused on discussing non-compliance, as opposed to general movements (improvements/deteriorations) in levels of service. Another example is the Auditor General's 2012 report[18] which, when discussing water quality complaints, does not mention a lack of maintenance activity as a driver for changes in performance – rather, it mentions that "*the higher than target level of complaints in 2011-12 is due to the system chlorination program. The Authority worked with NSW Health on this program. The program's aim was to reduce chlorine residual levels*"….and "*water quality complaints reduced compared with the prior year. This is due to the completion of major augmentation works at the Mardi Water Treatment Plant and the Mardi Dam*"; and
- We are unable to identify any definitive (downward) trends in historical expenditure from the AIR to support the comment that reductions in maintenance have been material. More specifically, the trend in historical expenditure – as outlined in the AIR – does not in fact indicate a material dip in recent years, relative to historical years. This is particularly so for "Water Reticulation", and "Total Wastewater" (excluding corporate costs, which should not impact on levels of maintenance). Nor does it indicate that a substantial increase in expenditure is forecast to occur in 2012/13 (although, this may well continue the theme of cut-backs to expenditure as a result of the financial implications stemming from the last regulatory decision). That said, the labour component of water does indicate some downward adjustments over the current regulatory period, although wastewater labour does not. Notwithstanding all of the above, it should be noted that analysis of the AIR is somewhat compromised by the lack of a specific 'maintenance' cost category, which means that reduced maintenance expenditure may in fact be masked by higher costs elsewhere.

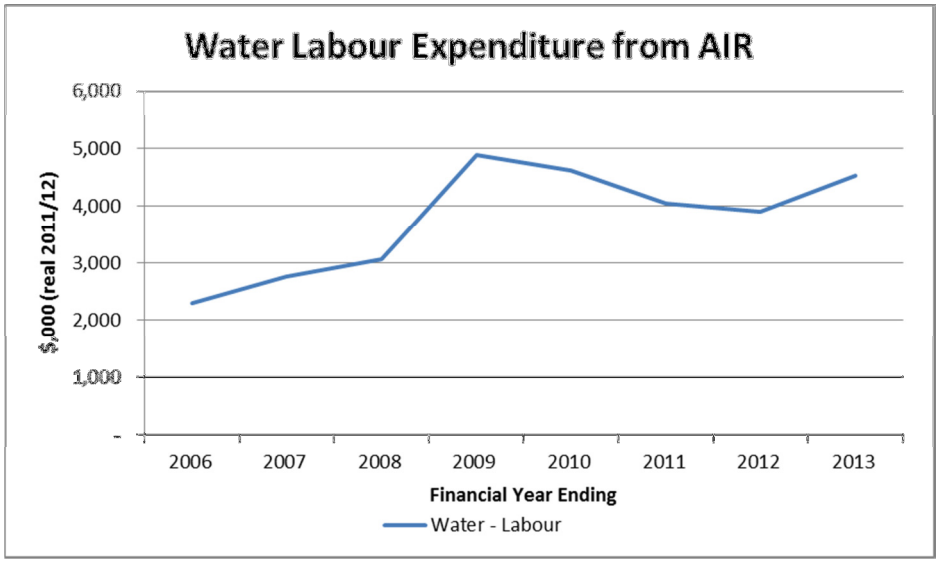
18 New South Wales Auditor-General's Report - *Financial Audit - Volume Six 2012 - Focusing on Environment, Water and Regional Infrastructure* - page 123

Figure 1: Water Expenditure from AIR



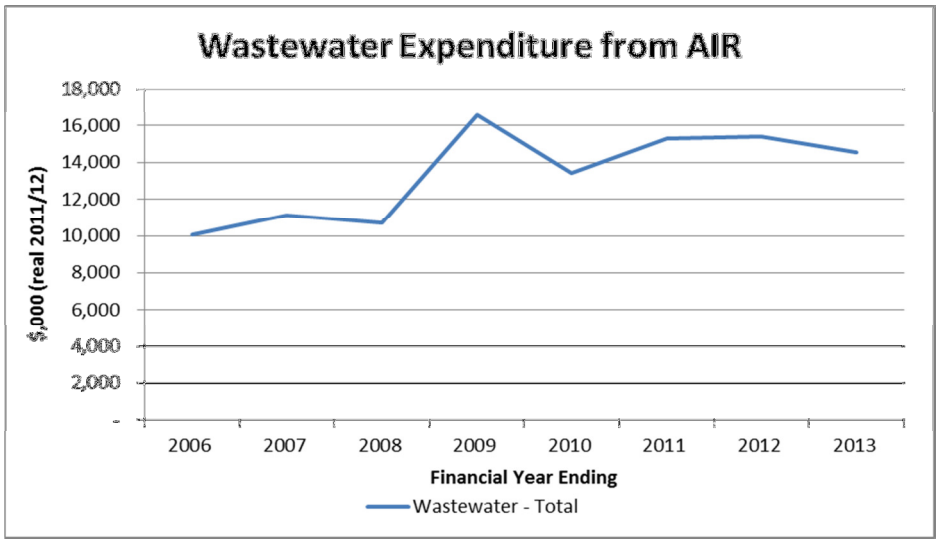
Source: Wyong Shire Council's AIR

Figure 2: Water Labour Expenditure from AIR



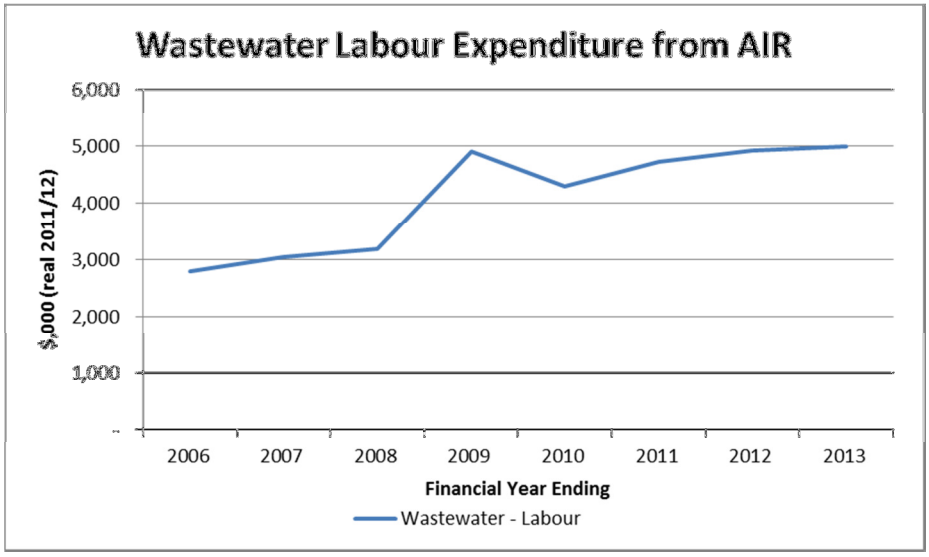
Source: Wyong Shire Council's AIR

Figure 3: Wastewater Expenditure from AIR



Source: Wyong Shire Council's AIR

Figure 4: Wastewater Labour Expenditure from AIR



Source: Wyong Shire Council's AIR

- *Inconsistent staff levels numbers* – We note that in the AIR, which was a key piece of information that we had access to when developing our initial report, WSC's reported FTE numbers were constant over the medium term historical period (165 in 2004/05, up to and 171 between 2008-2010, and back down to 166 in the base year of 2011-2012)[19]. Moreover, in the AIR, WSC did not indicate that staffing levels would be increasing as a result of their proposed forecast expenditure allowance (the proposed levels were exactly the same as actual levels in 2011/12, and those expected in 2012/13)[20]. However, WSC's Supplementary Response to the Draft Decision presented staffing levels that were significantly different to those that it presented in its AIR, with it indicating actual FTE levels had reduced from around 155 in September 2010 to 139 in June 2012[21]. As part of undertaking this report, we sought further information from WSC as to this discrepancy. They responded by saying that the AIR was in fact based on the[22] "*full staff complement assuming that all positions are occupied*" (i.e., it didn't report actual staff numbers), whereas the information provided as part of WSC's Supplementary Submission is, to quote WSC[23], "*the number of positions actually filled with an incumbent…in June 2012, as an example, only 138 positions out of the full establishment were actually filled"*.

On a separate, yet related issue, we note a complicating factor in making any assessment in relation to the number of FTE's is the linkage between overtime levels and full time employees. In particular, WSC note in their Supplementary Response to the Draft Decision that[24]:

> *"Even though activities were pared back and a number of essential maintenance activities were not performed (impacting service levels and quality as noted in the previous sections) the low level of FTE over the period has resulted in employees needing to work significant overtime. Figure 7 shows the cost of overtime hours over the same period. The hours worked are the equivalent of approximately 20 additional FTE. [Emphasis added]"*

19 Table 1.1 (Operating Statistics) of WSC's AIR

20 Ibid

21 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council*- 28 March 2013 – page 6

22 Email from Ian Johnson on Thu 11/04/2013 4:39 PM

23 Ibid

24 Wyong Shire Council - Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council- 28 March 2013 – page 7

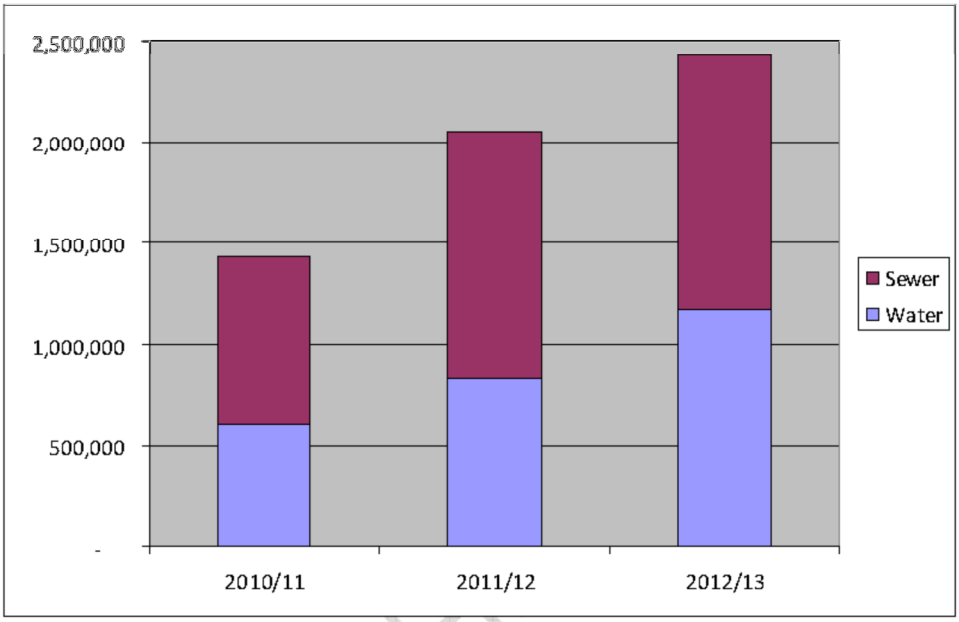


Figure 7 Overtime costs trend analysis

The large increase in overtime costs in 2011/12 relative to 2010/11 – which, as WSC states, is predominantly driven by reduced levels of FTE's - would already be embedded within WSC's forecast opex, as we used the 2011/12 year as the base year. To be clear, we did not try and normalise the 2011/12 base year, nor did we seek to remove any expenditure that may have been incurred in those years, and now, will otherwise, not need to be incurred. Therefore, any ramp up in FTE's, would, we expect, lead to lower levels of overtime being required, and therefore, a reduction in this cost category would be required relative to what has currently been allowed for. Conversely, increased levels of overtime, such as those incurred in 2011/12 (based on Figure 7 of WSC's Supplementary Submission, and reproduced above), may in fact be offset by reduced FTE levels. For example, based on WSC's Supplementary Submission, Actual FTEs reduced from around 146 in June 2011 to around 138 in June 2012. A very simple analysis indicates that for that same year, the reduction of 8 FTE's was offset by around an equivalent 5 FTE increase[25] in the amount of overtime[26]. Whilst this analysis is very high level, based on WSC's statements, there is clearly a linkage between FTE's and overtime, therefore, if any change were made to WSC's operating expenditure forecasts to accommodate an increase in FTEs, it would be important to have regard for the net impact that the addition of those FTE would have on WSC's costs.

25 Cost of overtime in 2012/13 = ~$2.4M / 20 FTE's = $120k per FTE (based on WSC's statements in its Supplementary Submission); The increase in overtime in 2011/12 relative to 2010/11 is ~$600k, divided by $120k = ~5 FTEs.

26 We are unable to undertake the same analysis for 2012/13, as WSC did not provide Actual FTE numbers for 2012/13.

Finally, we note that much of WSC's documentation focuses on the reduction in levels of service that are purported to have stemmed from reduced maintenance activity. We note that these (lower) service levels are likely to have in part, formed the basis of the levels of service that WSC is seeking to deliver over the forthcoming regulatory period, as the majority of WSC's target service levels were based on extrapolating from current levels of service[27]. The 'base year' approach seeks to capture this linkage between outturn levels of service and outturn costs (and therefore price). Put another way, the base year approach seeks to ensure that there is a direct linkage between a business' opex allowance, and the level of service that it is expected to deliver over the forthcoming regulatory period. The corollary is that if the backlog in maintenance was funded, then IPART would be required to assess the impact that that increased expenditure may have on forecast service levels. Theoretically, this should also entail it testing customers' willingness to pay for those increased levels of service.

Our recommendation – Backlog of Maintenance

In summary, we consider that changing one parameter (e.g. salaries associated with FTEs), without normalising other parameters (e.g., overtime), is fraught with risk, and even if other parameters are normalised, this is still likely to lead to estimation errors, relative to adopting a base year approach. Furthermore, there will be a linkage between overall expenditure, and levels of service, which IPART may need to consider if it were to provide for any change to WSC's approved operating expenditure forecasts.

Secondly, the quantitative evidence available to us in support of the assertion that there has been an overall reduction in maintenance activity (in dollars) is not conclusive, particularly for wastewater.

Thirdly, the main evidence presented through this review process with regards to the magnitude of the backlog in maintenance was in response to our draft report. Taken at face value, this indicated that the backlog (or shortfall) for water was $262k per annum, which equates to a required increase of 5.9% on existing maintenance levels. For wastewater, this shortfall is, to our mind, immaterial, at 1.75%[28].

27 Wyong Council – *"Submission to IPART 2013 – 2017"* – page 144

28 We note that drainage is reported to have an even higher backlog, however, we have not discussed this in our report, as this was not flagged as an issue by WSC in either their Supplementary Response or their Original Response to the Draft Decision.

Overall, we are conscious that any business (regulated or otherwise) operates in the context of certain financial constraints, and we acknowledge that a prudent and efficient business may, in certain financial circumstances, make inter-temporal substitutions to their expenditure programs, with planned maintenance being a key lever that is likely to be used. We also reiterate what we said in our Final Report, namely, that we have some sympathy for the position that WSC may have faced, however the difficulty that we have is that the information that we have reviewed does not clearly make the case that this issue is material (see, for example, wastewater maintenance shortfalls mentioned above), or that expenditure has, in totality declined in response to those financial constraints. Therefore, we do no not consider ourselves to be in a position to make a definitive statement recommending that IPART include an additional allowance to accommodate for a backlog of maintenance. Notwithstanding this, what we would state is that the evidence indicates that if IPART were to make such an allowance, this should be confined only to the water component of WSC's business, and that at most, the estimated proportion of the water labour allowance *associated with maintenance* activity be increased by the estimated maintenance shortfall of $262k (or 5.9% of the water labour maintenance allowance, which we note is substantially less than the Council's request that IPART reinstate the labour estimates included in Council's Original Submission, which would have led to a 15% nominal increase in total water labour). We note that if IPART did make such an adjustment, it may also need to consider the impact that this has on the cost of overtime underpinning the base year allowance, as well as the levels of service that WSC will be held to over the forthcoming period.

Additional operating expenditure requirements at Mardi WTP.

Summary of Response to Draft Decision

In both its Original and Supplementary Responses to IPART on its Draft Decision, WSC flagged two key operating expenditure related issues that pertain to the Mardi Water Treatment Plant (MWTP).

More specifically, WSC states that it needs significantly more (than they forecast last September) for chemical costs at the MWTP, and significantly more (than they forecast last September) for sludge dewatering and disposal at MWTP.

WSC summarised these issues in their Original Response as[29]:

29 Wyong Shire Council - *Draft IPART Pricing Determination Response by Wyong Shire Council* - 15 March 2013 - page 8 and 9

- *Chemical Costs: In it's submission to IPART in September 2012 Council made an allowance for water treatment chemicals that reflected recent expenditures (about $200k per annum) and historical water quality. Since providing the submission a number of factors have significantly impacted on the operational costs of the Mardi Water Treatment Plant (MWTP). The increased costs are associated with the recent transition to harvesting higher stream flows to meet environmental and yield objectives. Significant difficulties have been experienced in operating MWTP with the changed feed water quality. A number of process changes have been required to keep the plant operating efficiently. These changes involve significant modification to the chemical dosing required at the plant. An overview of the contributing water quality issues is provided in the "CAPITAL EXPENDITURE ISSUES – DISSOLVED AIR FLOTATION" section of this response to IPART. It is also advised that MWTP, as a "Direct Filtration Plant" was not designed to consistently treat the quality issues outlined in "CAPITAL EXPENDITURE ISSUES - DISSOLVED AIR FLOTATION". As processes are still being refined and operational experience is being gained with the process modifications the updated total estimated costs are in the range between $3.3M and $7.7M over the next price path with a likely cost of $5.0M. Associated with the higher turbidity levels and chemical dosing rates is a greater volume of sludge that needs to be handled and disposed of. This is discussed in c) below. While recognising that this is a late change Council requests that increased operating costs of at least $5.0M over the next price path be admitted in finalising the price determination.*
- *Sludge Dewatering: The sludge lagoons at MWTP have never been emptied in the 30 year operating history of the plant. The volume stored in the sludge lagoons is approaching the capacity of the lagoons and dewatering and disposal of sludge is required to enable the continued operation of the lagoons. In its submission to IPART in September 2012 Council made an allowance of $500,000 to provide for partial emptying of the sludge lagoons. Since the submission a number of process changes at MWTP have been required to accommodate changes to the feed water to the plant as noted in Section b) above. These changes have resulted in significant increases in the amounts of sludge being produced at MWTP. Based on the likely range of increased chemical usage the total cost to dewater and dispose of sludge over the price path is now estimated to be the range of $0.85M and $1.8M with a likely cost of $1.2M. While recognising that this is a late change Council requests that operating costs of at least $1.2M over the next price path be admitted in finalising the price determination for sludge management at MWTP.*

WSC's Supplementary Response, in particular, provides significant detail demonstrating the changes in Raw Water Turbidity and Raw Water True Colour. Two key graphs from that submission are reproduced below.

Figure 5: Raw Water Turbidity

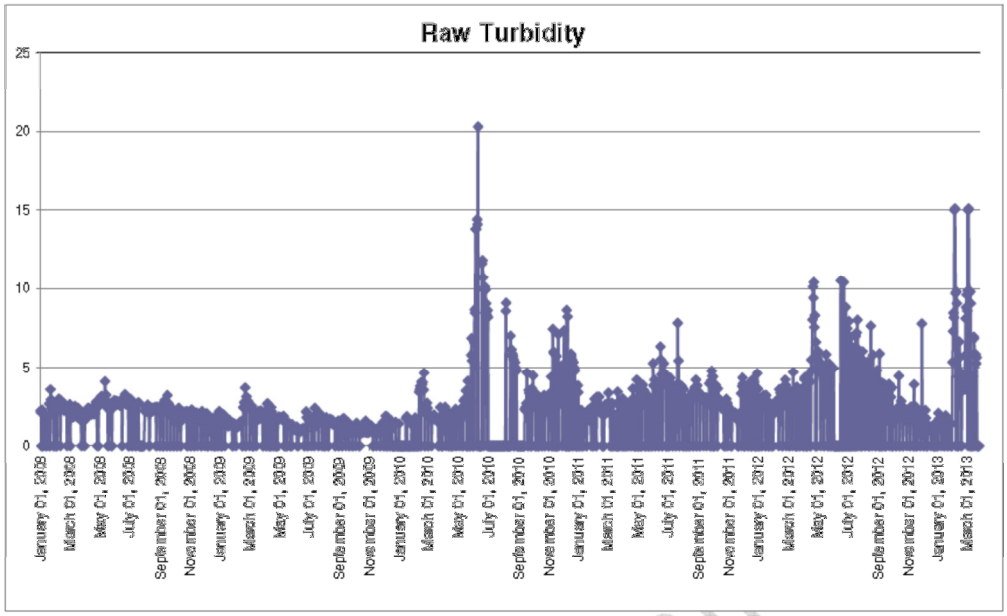


Figure 10 Raw water turbidity

Source: Wyong Shire Council's Supplementary Response

Figure 6: Raw Water Colour

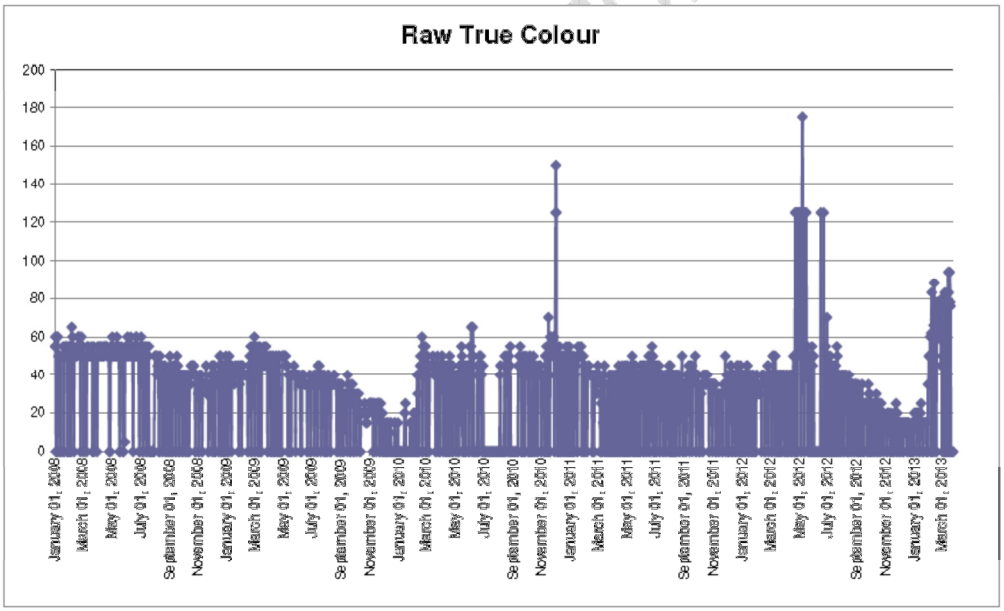


Figure 11 Raw water true colour

Source: Wyong Shire Council's Supplementary Response

To paraphrase WSC commentary's on the above graphs:

- The figures (replicated above) show the change in water quality from May to July 2012 and February to March 2013, when pumping during high flows impacted turbidity and colour;

- The change in water quality during May 2010 to January 2011 was associated with the construction of the Mardi Dam outlet tower, where water levels were lowered to enable construction; and
- Overall, water quality parameters can increase to more than double average figures when pumping during high flows.

Issues that we have considered when critiquing WSC's response

Conceptually, we accept WSC's position that there is a link between raw water quality, and the operation of the treatment plant. The empirical data further supports this linkage. More specifically, inferior raw water quality is likely to lead to changes in the way the water treatment plant is operated; including the chemical dosing that is undertaken at the treatment plant, which has consequent impacts on the amount of sludge produced.

We note that theoretically, the change in chemical and sludge dewatering and disposal costs should be based on a bottom up build, which takes account of the unit rate ($/tonne) associated with purchasing the chemicals (and sludge dewatering and disposal costs), multiplied by a volume of inferior quality water that is needed to be treated (i.e., this is because the forecasts already include the cost of treating "normal" water quality, so we are only focusing on the cost increases stemming from those periods where water quality materially diminishes, relative to the average).

This would require a "before and after" assessment to identify the incremental change in dosage rates per ML for each of the key chemicals affected by the process changes made at the MWTP to accommodate changes in the feed water to the plant, as well as a $/tonne unit rate for each affected chemical. Obviously, this would also be linked to the levels of sludge produced.

Secondly, it would require a probabilistic assessment of the likelihood of pumping during high flow period, which we understand is the driver of increased turbidity and colour (and which is the driver of increased chemical costs and sludge management costs, relative to what is assumed to already be allowed for in the allowances).

Having regard to this, and in the context of additional chemical costs, WSC's Supplementary Response states that[30]:

- *Associated with these changes is an increase in the usage of a number of key chemicals. These include:*
  - *Increased Alum usage to flocculate the increased turbidity;*
  - *Significant increase in chlorine usage to achieve a residual chlorine levels for disinfection as the organic carbon consumes much of the chlorine added at the plant;*
  - *Lime dosing to adjust the pH through the plant which is affected by the higher alum dosing rate;*
  - *CO_2 dosing for pH and alkalinity adjustment.*

30 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council*- 28 March 2013 - page 18

- *Estimates of chemical usage and costs over a range of possible water quality scenarios have been developed. The scenarios are based on a range of average annual turbidly levels which is the principal parameter for the treatment plant. The low scenario is based on 3 NTU, median based on 4.5 NTU and the high is based on 8 NTU throughout the year. The estimated chemical costs (2012/13 dollars) for the low scenario is $3.2M for the medium scenario is $4.8M and for the high scenario is $7.6M.*
- *The estimated chemical cost for the plant over the price path is $4.8M. These costs are significantly in excess of the costs used by Oakley Greenwood and IPART to determine efficient operating costs.*

To provide some context to the proposed increase in chemical costs, WSC stated in its Original Response to the Draft Determination that in its September 2012 submission, that it made an allowance for water treatment chemicals that reflected recent expenditures of about $200k per annum[31]. Therefore, the proposed increase (to $4.8m over 4 years) in the expected cost of chemicals is around 6 times[32] what was originally proposed, which in turn was based on recent experience. Furthermore, the total dollar amount of water 'materials' costs listed by WSC in their original AIR is $2.6m for the 2011/12 year[33] – therefore, WSC's proposed increase in chemical costs represents around about a 45% per annum increase in total water materials costs[34].

For sludge management costs, WSC's Supplementary Response makes the following commentary around its additional costs[35]:

- *Based on the likely range of increased chemical usage the total cost to dewater and dispose of sludge over the price path is now estimated to be the range of $0.85M and $1.8M with a likely cost of $1.2M; and*
- *Council request that operating costs of at least $1.2M over the next price path be admitted in finalising the price determination for sludge management at Mardi WTP.*

To provide some context to the proposed increase in sludge management costs, WSC stated in its Original Response to the Draft Determination that in its September 2012 submission, it made "*an allowance of $500k to provide for partial emptying of the sludge lagoons*[36]" which we recommended that IPART allow based on the information provided to us at the time.

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31 Wyong Shire Council - *Draft IPART Pricing Determination Response by Wyong Shire Council* - 15 March 2013 – page 8

32 Note: This assumes that both the $200k and the proposed $4.8m over 4 years are gross costs to WSC, not net costs (i.e., after recovering 50% of those costs from Gosford City Council under the JWS agreement). If, however, the $200k is the current net cost to WSC, whereas the $4.8m over 4 years is the gross cost, then this proportion reduces to 3 times existing levels.

33 Wyong Shire Council – AIR – 'Opex by Item'

34 NOTE: Again, if the $4.8m over 4 years is a gross cost to WSC, 50% of which will be recovered from Gosford City Council under the JWS agreement, then the percentage increase halves to ~22%.

35 Wyong Shire Council - *Draft IPART Pricing Determination Supplementary Response by Wyong Shire Council* - 28 March 2013 – page 19

36 OpCit, page 9

Our recommendation – Increased Chemical and Sludge De-watering costs at Mardi Water Treatment Plant

Having regard to the above information, as well as other information provided in the submission to IPART on the Draft Decision, our concern is that WSC has provided scant detail as to things such as: current, and forecast, dosage levels, for different chemicals; unit rates assumed for each of those chemicals, and the basis for these unit rates; how the probability of increased levels of turbidity has been determined etc. In short, no 'bottom up' build of WSC's proposed opex allowance has been presented. This represents a significant barrier to us being able to make a robust assessment as to whether the proposed expenditure levels (as compared to the underlying rationale for the incurrence of some additional expenditure) are consistent with a prudent and efficient service provider. This is further compounded by the overall quantum of the increase – particularly for chemical costs – which, on face value, seem very large.

In the absence of this detail, we do not consider that we are in a position to make a considered assessment of the underlying components of the broader cost build up (particularly given the threshold test of prudency and efficiency). However, we reaffirm that we accept WSC position that there is a link between raw water quality, and the operation of the treatment plant. Given this position, we would recommend that if WSC cannot provide more detail around this issue to IPART – for example, the bottom up build they have used to quantify this cost - such that it allows IPART to adequately assess whether the proposed expenditure is prudent and efficient, then an alternative regulatory mechanism, such as a cost pass with ex-post reviews, be considered. This mitigates the risk that WSC will materially under-recover its prudent and efficient costs, whilst mitigating the risk that IPART will provide allowances that lead to a material over-recovery of costs.

Kindest regards

Jim Snow
Director