

## **Appendix D**

A copy of the relevant part of the Decision relating to  
Lake Hayes water quality issues

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which term is appropriate depends on what it is that is sought to be protected and/or maintained.

264. In this regard, we agree with counsel for Darby Planning LP and others who suggested to us that it does not really make sense to talk about protecting amenity values from harm. Maintaining makes much more sense in that context. Similarly, when talking about something physical (like a landscape or an ecosystem) it makes more sense to refer to protecting that landscape from harm than it does to talk about maintaining it. We acknowledge though that, other than as a matter of grammatical "fit", finding reasons for either position is elusive.
265. The other reason why it is important to be clear about what it is that has to be protected and/or maintained is because if not used carefully, both might connote preservation in the sense of unchanged retention. We take on board the Environment Court's observation from its 1999 decision on the Operative District Plan quoted above, that, at least in the context of amenity values, change may be beneficial.
266. We also consider that it is unhelpful to use the combined phrase "*maintain and enhance*" in an objective or policy. Reading those terms literally, an action which enhances amenity values (for instance) does not keep those amenity values at the same level or rate. In other words, depending on the context, if the two terms are used conjunctively, the resulting direction is internally contradictory.
267. The same contradictions do not arise in the context of Section 7(c) because these are matters to which we must have particular regard. As noted as long ago as Temm J's judgment in the *Shell* case already quoted, read in that context, it may be permissible to not maintain, let alone enhance amenity values in a particular situation.
268. Read in a Plan context, however, we think it is desirable in principle to use these instructions in the alternative: maintain ~~or~~ enhance.

## 2.8 Lake Hayes Water Quality Issues

269. In his Section 42A Report, Mr Barr noted three submissions that sought varying relief by reason of the impact intensification of land uses would have on the water quality of Lake Hayes. The Friends of Lake Hayes Society Inc<sup>282</sup> sought that the District Plan restrict any further residential or commercial subdivision and building in the Lake Hayes Catchment until suitable reticulated sewerage infrastructure is installed to prevent increased inputs of nutrients and contaminants to the lake. Peter Goulston<sup>283</sup> sought that there be an immediate halt on rezoning and further development of the area around Lake Hayes and Mill Stream, until among other things a full and independent environmental impact assessment can be carried out on the impact on those water bodies and the surrounding water catchment area. Catherine Dumarchand<sup>284</sup> opposed the Precinct Zone as a whole, by reason of effects on the Lake Hayes Catchment.
270. Mr Barr drew our attention to provisions in the Regional Plan: Water for Otago related to Lake Hayes water quality issues. The rules of that Plan require on-site wastewater treatment systems within the catchment of Lake Hayes to obtain a resource consent that is assessed as

<sup>282</sup> Submission 2140

<sup>283</sup> Submission 2095; supported by FS2727

<sup>284</sup> Submission 2150

a full discretionary activity. Mr Barr also referred us to the evidence of Ms Jarvis for the Council, who expressed confidence that on-site wastewater servicing can be achieved on properties with a minimum allotment size of 6000m<sup>2</sup>.

271. While we were initially somewhat sceptical as to whether the regional rules are being observed in this regard, Ms Jarvis advised us that her experience was that people were indeed making applications to the Regional Council; she had acted for a number of applicants herself. She also observed that in practice, the Regional Council requires secondary treatment, or more advanced treatment still, for wastewater discharges in the Lake Hayes Catchment.
272. The evidence of Dr Ruth Goldsmith for Waterfall Park Developments Limited included a lengthy technical paper authored by Dr Marc Schallenberg and Ms Lena Schallenberg discussing water quality in the Lake Hayes Catchment (*"The Schallenberg Report"*). The Schallenberg Report recorded that Lake Hayes is a highly-valued lake that has suffered from algal blooms for many decades, that those blooms worsened since 2006 with lake health and fishing deteriorating markedly. The report sought to analyse the link between worsening of algal blooms over the period from 2006 and the decrease which had occurred over the same period in external and internal nutrient loads. It concluded that the lake might be approaching a tipping point where, with appropriate restoration measures, stable improvements in summer water clarity, reduction in algal biomass and reoxygenation of the bottom waters of the lake might be achieved. Accordingly, the Schallenberg Report recommended a focus on land use activities in the catchment *"to further reduce nutrient and sediment losses from land to water"*.
273. Dr Goldsmith summarised the Schallenberg Report for us as well as providing her findings on the water of Mill Creek, concluding that the latter's existing water quality is generally good but groundwater inputs elevate nitrogen concentrations and faecal bacteria concentrations at times. She attributed that to the primary catchment land use of beef and sheep grazing on exotic pasture and golf course management.
274. The evidence of Mr Davis for the Council was consistent with the position described in greater detail in the Schallenberg Report, and by Dr Goldsmith. Mr Davis reported, importantly, that State of the Environment water quality monitoring for Lake Hayes and Mill Creek reports consistent exceedances of nutrient related water quality limits in the Regional Plan: Water for Otago.
275. Mr Davis also confirmed that agricultural activities would not be the sole source of nutrients and that nitrates, in particular, would be coming from Rural Residential properties in the catchment.
276. We also heard from the Friends of Lake Hayes Inc in support of its submission. Helpfully, the Chair of the Society (Mr Hanff) was accompanied by Dr Schallenberg and we were able to clarify aspects of the Schallenberg Report with the lead author. Dr Schallenberg's evidence was that we could not assume that conversion of pastoral sheep farming to rural living or urban living would necessarily have a positive effect on nutrient inputs to the catchment and he firmly supported a requirement that new development be linked to existing reticulated wastewater systems. In Dr Schallenberg's view this was always preferable to onsite disposal of wastewater, irrespective of the level of treatment.

277. To assist our understanding of these issues, we requested that the Council supply us with information on the extent of the Lake Hayes Catchment, the extent of existing reticulated wastewater services, and the location of onsite wastewater disposal facilities consented by Otago Regional Council.
278. After an initial false start, this information was sourced from Otago Regional Council and supplied to us under cover of a memorandum dated 29 August 2018.
279. In his reply evidence, Mr Langman noted advice from the Regional Council that approximately six consents had been granted by Otago Regional Council for wastewater discharge in the Lake Hayes catchment. Mr Langman described that number, somewhat euphemistically, as “*surprising*”, given that there are no existing use rights for discharges with the Regional Plan: Water for Otago having been operative for a number of years<sup>285</sup>. While the information subsequently supplied to us on 29 August suggests that the number of wastewater discharge consents issued by Otago Regional Council with the Lake Hayes Catchment may be greater than that advised to Mr Langman, it is apparent to us that there are a number of rural residential and rural lifestyle properties within the Lake Hayes catchment that do not have access to reticulated wastewater schemes and that have not obtained a discharge permit as required by the Regional Plan. Against that background, it is difficult to conclude that the Regional Plan is operating as intended, or to have confidence that the contribution wastewater discharges make to the degraded water quality of the Lake Hayes Catchment is being properly managed.
280. We discussed both with counsel for the Council and with Mr Barr the potential relevance of the National Policy Statement for Freshwater Management 2014 (NPSFM) to our deliberations. Both agreed that it was relevant. Mr Barr’s view was that this was the case irrespective of whether wastewater discharges required resource consents from the Regional Council. He thought that was particularly the case at the plan formulation stage.
281. Ms Scott returned to the issue in her submissions in reply confirming her initial response that although the policies in the NPSFM direct Regional Council actions, the objectives are worded broadly in a manner that is not specific to Regional Councils. She noted specifically Objective C1 of the NPSFM:
- “To improve integrated management of freshwater and the use and development of land in whole catchments, including the interactions between freshwater, land, associated ecosystems, and the coastal environment”.*
282. Ms Scott also drew our attention to the guidance provided by the Ministry for the Environment on implementation of the NPSFM which suggests that this objective is relevant to territorial authorities, both in the context of resource consent applications for land use and subdivision and in the context of District Plan reviews “*to exercise their function for integrated management under section 31(1)*”.

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<sup>285</sup> Langman Reply at 3.9

283. Given Mr Davis’s evidence, which indicates that the Lake Hayes catchment is over-allocated<sup>286</sup>, we consider that Objective A2(c) is also relevant to our deliberations. That objective seeks that the overall quality of freshwater within a freshwater management unit is maintained or improved while *“improving the quality of freshwater in water bodies that have been degraded by human activities to the point of being over-allocated”*.
284. In his evidence in reply, Mr Langman also drew our attention to the provisions of Objective 3.1 and Policy 3.1.1 of the Proposed Regional Policy Statement. These were among the provisions that were the subject of consent memoranda submitted to, but not yet approved by the Court as at the date of Mr Langman’s evidence. That remains the position and they reinforce the NPSFM focus on enhancing degraded water quality.
285. The control of discharges of contaminants into or onto land or water and the control of the use of land for the purpose of maintenance and enhancement of the quality of water in water bodies are Regional Council functions<sup>287</sup>.
286. Territorial authorities, however, have the function of establishing, implementing and reviewing objectives policies and methods to achieve integrated management of the effects of the use, development or protection of land and associated natural and physical resources of the District<sup>288</sup>.
287. Where subdivision and development has the potential to impact on water quality, there is an overlap between the regional and territorial functions. Particularly in a case such as this where the Regional Council has already put regulation in place purporting to manage the relevant activities, we need to be confident that an additional layer of regulation in the District Plan would meet the section 32 tests focussing on the efficiency of those provisions.
288. In his evidence in reply, Mr Barr recommended to us that we might insert an advice note into Chapter 24, pointing out to people the need to obtain a resource consent from Otago Regional Council for onsite wastewater treatment systems within the Lake Hayes catchment, but considered that that was as far as the text of Chapter 24 could go because the control of contaminant discharges is a Regional Council function.
289. We agree with Mr Barr’s view. We do not believe that it would be permissible to control wastewater discharges directly through the mechanism of District Plan Rules.
290. In his reply evidence, Mr Langman discussed the relevance of this issue to the extent of Precinct Zoning within the Lake Hayes Catchment. As he observed, the WB Landscape Study, on which the notified zoning was based, did not consider the consequential effects of subdivision and development on water quality<sup>289</sup>.

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<sup>286</sup> Defined in the NPSFM to include allocation to users beyond a water quality limit

<sup>287</sup> Under section 30 of the Act

<sup>288</sup> Section 31(1)(a) of the Act

<sup>289</sup> Although Friends of Lake Hayes sought that the Landscape Study be broadened in this respect, we have no ability to direct amendments to it. We can and should, however, take account of its limitations, which was Mr Langman’s point.

291. In addition to the nutrient effects that we have already discussed, Mr Langman also commented on evidence provided by the Friends of Lake Hayes as to the adverse effects of sediment on lake water quality. He referred in particular to significant land disturbance activities at Waterfall Park and commented that the degree of earthworks on that site would likely result in sediment being transported into Mill Creek during heavy rainfall events.
292. Ultimately Mr Langman put it to us in the following terms:
- “If the Panel is satisfied that the impacts of earthworks can be managed through the Earthworks Chapter of this Plan, and onsite wastewater disposal can be adequately managed through the discretionary regional consenting process for wastewater, then it is my view that the areas identified for Precinct in the Lake Hayes Catchment are appropriate.”*
293. He regarded the answer to that question as uncertain and therefore falling within the ambit of Policy 5.4.3 of the now Partially Operative RPS 2019 directing that a precautionary approach be applied.
294. We consider that there is evidence that the earthworks provisions of the Operative District Plan are not working effectively to control earthworks effects on water quality in the Lake Hayes Catchment. We observed the extent of earthworks on the Waterfall Park site that were the subject of Mr Langman’s evidence and have no reason to take a different view from him regarding the efficacy of sediment control measures on that site. Whether it is possible to put a more effective regime in place will be a matter for the Stream 15 Hearing Panel considering submissions and further submissions on the Earthworks Chapter of the Proposed District Plan, and so we should not assume the current situation will continue.
295. As regards nutrients, however, we think that if anything, Mr Langman understated the position. The evidence we have discussed already clearly indicates to us that whatever the position in theory, the Regional Plan is not currently being enforced in a manner that gives us any confidence that the objectives we have quoted from the NPSFM will be achieved, as they relate to Lake Hayes.
296. Even if it were being enforced, Ms Jarvis told us that the Regional Plan has no hard and fast limits and the level of treatment required is much less than for sensitive catchments in the Waikato and Bay of Plenty Regions (Lake Taupo and Rotorua Lakes respectively). We asked Mr John McCartney, giving evidence for Spruce Grove Trust, about the efficacy of advanced on-site wastewater treatment. He told us that modern systems would minimise nutrients reaching groundwater, but he could not give us an absolute assurance that no additional nutrients would flow into Mill Creek (reflecting the location of the site the subject of his evidence) and thence to Lake Hayes.
297. We also note the view expressed to us by Mr Davis that intensification within in the Lake Hayes Catchment needs to be considered particularly carefully because of the condition and sensitivity of the Lake.
298. We consider that the appropriate course is to alter the notified Precinct Zoning to rezone land within the Lake Hayes catchment Rural Amenity Zone except where it is served by a reticulated wastewater treatment scheme.

299. That exclusion differs slightly from that recommended by Mr Langman<sup>290</sup>. Mr Langman suggested that an appropriate exclusion would be for areas either served by existing community wastewater schemes or within areas that are developed to approximately rural residential developed levels of density (below 2ha).
300. The information supplied to us by Council identified both community and private sewer schemes. While the areas the subject of private scheme were not before us, we think that in principle, the issue is the efficacy of a scheme in removing nutrients from the Lake Hayes Catchment rather than the governance arrangements for it.
301. Mr Langman did not explain the rationale for his second exception and on the basis that further degradation of Lake Hayes as a result of subdivision and development is, in our view, to be avoided, we do not think it is appropriate.
302. We concur with Mr Langman's view that the time to consider up-zoning these areas to Precinct is when it can be demonstrated that such a zoning would not result in any further degradation of water quality feeding into Lake Hayes, and that this approach gives effect both to the NPSFM and to the Partially Operative RPS 2019 provisions noted above.
303. We note that we have relied on the delineation of the Lake Hayes Catchment provided to us under cover of the Council's 29 August 2018 Memorandum. The area identified appears to follow the surface water catchment of Lake Hayes, which is influenced by the Arrow Irrigation Scheme water race. This gives rise to some concerns because, when seeking to control nutrient inputs in a catchment, one also has to consider the ambit of the groundwater catchment, which may not coincide with the surface water catchment. The lay evidence of Mr Rohan Hill suggested that the Regional Council map of the catchment may not accurately reflect the extent to which groundwater on the south side of Mooney Road flows ultimately into Lake Hayes. We also note that the Schallenberg Report defined a broader area as representing the catchment. However, Dr Schallenberg made it clear that his expertise was in water quality rather than groundwater hydrology, and so we were unable to explore with him the basis for his map of the catchment. We suspect, therefore, that the catchment map we have relied upon may be conservative, but with due respect to Mr Hill, it is the best information available to us at this time.

## 2.9 Transport Network Capacity

304. The expert evidence of David Smith for the Council was that the State Highway bridge over the Shotover River is approaching capacity and any increase in density of development in the Wakatipu Basin will exacerbate congestion at the bridge. While he accepted that many of the submissions we heard related to relatively small increases in activity which on their own would have no noticeable effect on the performance of the transport network, he opposed all submissions seeking to increase residential density beyond that provided for in the notified Chapter 24 by reason of their cumulative adverse effect.
305. For similar reasons, Mr Smith did not oppose submissions<sup>291</sup> seeking to downzone Mooney Road. Mr Smith also drew to our attention the difficulty assessing when improvements to Mooney Road and its intersection with Hunter Road are required in a resource consent context

<sup>290</sup> In his Reply Evidence at paragraph 3.17

<sup>291</sup> Submissions 2129 and 2171