

Before the Selwyn District Council

under: the Resource Management Act 1991

in the matter of: Proposed Private Plan Changes 81 and 82 to the
Operative District Plan: Dunns Crossing Road, Rolleston

and: **Rolleston Industrial Developments Limited** and
Brookside Road Residential Limited
Applicant

Statement of Evidence of Mark Taylor (Ecology)

Dated: 26 August 2022

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STATEMENT OF EVIDENCE OF MARK TAYLOR

INTRODUCTION

- 1 My full name is Mark James Taylor.
- 2 I hold a degree of Bachelor of Science in Zoology, and have 36 years' experience in environmental assessment, with 17 years (1984-2001) of this with MAF Fisheries Research Division & NIWA, where I worked as a senior technical officer. In 2001 I founded Aquatic Ecology Limited (AEL), a consultancy group, and still work there.
- 3 I have been the senior author, and co-authored a number of scientific papers on freshwater fish ecology while with NIWA.
- 4 I have been a member of the Limnological Society of New Zealand, now the New Zealand Freshwater Sciences Society, since 2001.
- 5 Commissioned by mostly local development companies, I have undertaken preliminary investigative and green-field investigations for Plan Changes for developments in Lincoln, including Verdeco, Plan Change 69, Plan Change 80, and water quality monitoring for the Liffey Springs development. I was also involved in the AEE for construction effects on the LII River for the recent (Ararira Springs) school build (with Southase) and commissioned by Environment Canterbury to evaluate trout spawning grounds in the Te Waihora/Lake Ellesmere catchment, including the LI & LII catchments. I have been engaged by Selwyn District Council (SDC) for various ecological compliance studies in the district from time to time, including for recent bank works on the L2 Creek near Moirs Lane.
- 6 Further afield, I have prepared numerous reports and memos on ecological values throughout New Zealand, for both private companies and regional councils. For Environment Canterbury, I have sat on technical panel for setting minimum flows for the Mid-Canterbury Region and supplied ecological information for the Regional Plans.
- 7 I sat on the board of management for the Living Laboratory Board of Management (Styx River environmental enhancement) for 10 years.
- 8 In respect to residential developments, I have been involved in greenfield surveys, assessment of effects, and naturalisations in waterways and wetlands in many of the major residential subdivisions in Christchurch (Prestons, Champions Mile, Aidanfield, Highsted, Spring Grove, Burlington, Yaldhurst Estate, Milns Park, and others).
- 9 In the last two years, AEL has been involved in the fish translocation from the roadside drain around central Rolleston, and Goulds Road Drain, adjacent to the new stage of the Faringdon subdivision where AEL also assessed the aquatic ecology.
- 10 For central and local government, I have undertaken many ecological surveys for the Christchurch City Council, Waimakariri District Council, Hurunui District Council, Department of Conservation, Environment Canterbury, and Waka Kotahi.

11 I am familiar with:

- 11.1 The plan change application by Rolleston Industrial Developments Limited to rezone approximately 28 hectares of rural land in Rolleston to Living MD (PC81); and
- 11.2 The plan change application by Brookside Road Residential Limited to rezone approximately 110 hectares of rural land in Rolleston to Living MD and Business 1 (PC82).

together the *Proposed Plan Changes*, and Rolleston Industrial Developments Limited and Brookside Road Residential Limited together the *Applicants*.

CODE OF CONDUCT

12 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in Part 7 of the Environment Court Practice Note 2014. I have complied with it in preparing my evidence. I confirm that the issues addressed in this statement of evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SUMMARY OF EVIDENCE

- 13 Due largely to the fieldwork restrictions of the COVID lockdown, I was only able conduct a visual ecological assessment regarding PC81 and PC82 included in the application. In particular in my assessments I address the ecological value of waterways, ponds, and soak holes of these sites and recommended provisions to include as part of the plan changes to ensure these values (which range from low to moderate) are appropriately managed through the plan change.
- 14 Dr Burrell and I are in reasonable agreement of the probable ecological values in the land blocks PC 81 & PC 82.
- 15 We tend to have different opinions on the possible wetland status of waterbodies in the PC 81 block. However, the opinion difference doesn't matter because this area will be subject to a now standardised wetland delineation process should the raceway be modified or realigned.
- 16 I have recommended ecological survey before land development for both Plan Change areas, and certainly before subdivision stage. This is because early works may perturb the ecology, and therefore affecting the ecological results and conclusions. I understand that the amendments to the PC81 and PC82 proposals (in **Mr Phillips'** evidence) include rules to this effect.

RESPONSE TO DR. BURRELL'S REPORT – PC 81 SKELLERUP SOUTH

- 17 I have read **Dr. Burrell's** report. He agrees with my assumption that ecological values in PC 81 block are likely to be low. The origin of the soak holes on the site is currently unclear. Using both Google Earth imagery and

Canterbury Map, the apparent waterbodies grow and retract over many decades, and are in close vicinity to the irrigation race.

- 18 I do not necessarily agree with **Dr Burrell** that the ponded areas may constitute natural wetlands for the purposes of the NPS-FM. Nevertheless, the ecological ground survey recommended by both myself and **Dr Burrell** (and adopted by the Applicant in the evidence of **Mr Phillips**) provides certainty that ecological values, including the presence of wetlands, will be considered in more detail at a time prior to subdivision.
- 19 However, I accept even artificially maintained wet areas can develop aquatic values depending on water permanence and migration routes for fish, invertebrates and birds. Artificial wetlands are covered under the RMA definition of 'wetlands'. However, the LWRP wetland definition excludes "artificial farm dams, drainage canals and detention dams".
- 20 I consider that a ground survey, as recommended by myself and **Dr. Burrell**, is clearly the best way forward to determine ecological values, and undertake the associated tests in the recent technical guide for wetland demarcation (Ministry for the Environment 2021) at that point in time. Rules have been proposed to this effect in the evidence of **Mr Phillips**.

RESPONSE TO DR. BURRELL'S REPORT – PC 82 BROOKSIDE

- 21 **Dr. Burrell** and I are in agreement that the water race through the PC 82 block may be, at least, of moderate ecological value. The intent of my recommendation was that an ecological survey should be undertaken before land disturbance. This has been normal practice in all of the other 'green field' ecological surveys I have been involved in. I am of the opinion that early works involving haul road construction and temporary culvert placement, could potentially perturb the ecology, and therefore affecting the ecological results and conclusions. In that respect, I accept **Dr Burrell's** suggested wording change to the ODP as being appropriate and understand this has also been accepted by the Applicant.
- 22 Plan Change decisions can still be made without detailed ecological knowledge. However, ecological detail is important in respect to the ecological strategy, and waterway naturalisation details and therefore an ecological survey at a time prior to subdivision is recommended (and accepted) by the applicant.

RESPONSE TO S42A REPORT

- 23 I note that the Council Officer was satisfied that there were no ecological matters that preclude the rezoning of the site for residential purposes and I agree with this.

CONCLUSION

- 24 There is agreement between **Dr Burrell** and myself as to the ecological values of the plan change sites. We are both recommending that ecological surveys be undertaken prior to subdivision and I (and the Applicant through

the evidence of **Mr Phillips**) have accepted his recommended amendments to the relevant rules.

Dated: 26 August 2022



Mark Taylor

REFERENCE:

Ministry for the Environment 2021. Defining 'natural wetlands' and 'natural inland wetlands'. Wellington. No. ME 1590. 25 p.