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Submitter Name:

ORAL PRESENTATION TO THE SWLP HEARING PLANNING BY ARATIATI/

Date Received: 6 / 8 /17

DATE: 16 AUGUST 2017

PRESENTERS: PAUL D MARSHALL B.AGR.ECON (HONS) IN NATURAL RESOURCE ECONOMICS, (MASSEY UNIVERSITY) JUANITA P MARSHALL BAGRSCI (MASSEY UNIVERSITY)

GREETINGS FROM THE MOTU

OUR FAMILY HAS FARMED IN THE MOTU SINCE 1966. THE 600HA HOLDING IS SPLIT INTO TWO, 700 COW DAIRY UNITS.

WE HAVE THE 4[™] GENERATION LIVING ON FARM. INTERGENERATIONAL STEWARDSHIP OF THE LAND UNDERPINS THE CONTINUITY OF OUR BUSINESS.

OUR COMPANY IS OPPOSED TO ONLY 5 PROPOSALS WITHIN THE PLAN.

WE WISH TO BE HEARD ON 4 SPECIFIC TOPICS:

- 1. INTEGRATED MANAGEMENT OF THE FRESHWATER RESOURCE IN THE WAIAU CATCHMENT
- 2. RULE 32 FDE SYSTEMS
- 3. RULE 23 INTENSIVE WINTER GRAZING
- 4. ACCOUNTING FOR N & P CONTRIBUTED TO FRESHWATER

TOPIC1 - INTEGRATED MANAGEMENT OF THE FRESHWATER RESOURCE IN THE WAIAU CATCHMENT

WE ACCEPT THAT THE MANAPOURI POWER SCHEME IS OF NATIONAL SIGNIFICANCE, BUT ARE CONCERNED THAT ADEQUATE ACCOUNT HAS NOT BEEN TAKEN ACCOUNT OF THE COSTS THAT THAT GENERATION HAS IMPOSED ON OUR COMMUNITY AND THE ECO-SYSTEMS IN THE LOWER WAIAU RIVER. 97% OF THE WATER THAT, PRE-CONTROL, FLOWED FROM LAKE MANAPOURI DOWN THE LOWER WAIAU TO THE SEA, IS NOW DIVERTED THROUGH THE WEST ARM POWER STATION WITH TAIL RACE DISCHARGE TO DOUBTFUL SOUND. 97%!

THE ESSENTIAL CHARACTER OF THE LOWER WAIAU RIVER HAS CHANGED FROM A STABLE SINGLE STEM RIVER SYSTEM TO, IN MANY AREAS, A BRAIDED RIVER WITH AN UNSTABLE MEANDER PATTERN OVER A SUBSTANTIAL FLOOD PLAIN. THE LOWER WAIAU IS NOW LITTLE MORE THAN A DRAINAGE CHANNEL USED BY MERIDIAN TO DIVERT HEAVILY SEDIMENTED FLOOD FLOWS TO THE SEA.

THE ARTIFICIALLY RAPID RISE AND FALL OF RIVER LEVELS DURING AND IMMEDIATELY FOLLOWING HIGH RAINFALL EVENTS CONTRIBUTE TO BANK SLUMPING WHICH DELIVERS SEDIMENT AND GRAVEL TO THE RIVER. THE SEDIMENT LOAD HAS MANIFESTLY CHOKED THE TE WAEWAE LAGOON AND THE GRAVEL LOAD HAS RAISED PARTS OF THE RIVERBED THAT EXACERBATE DOWNSTREAM FLOODING. MERIDIAN'S RESPONSE TO LAND OWNERS WHOSE PROPERTIES NOW ROUTINELY FLOOD IS TO SUGGEST THAT THIS IS PART OF A NATURAL PROCESS.

ON JUNE 7 2017, THE LOWER WAIAU COMMUNITY CAME TOGETHER TO FORM A CATCHMENT GROUP CALLED THE **LOWER WAIAU RIVERCARE GROUP**. PETER HORRELL, WHO WILL PRESENT TO THE PANEL TOMORROW, AND I, CO-CHAIR THE RIVERCARE GROUP. THE PRIMARY FOCUS OF THE GROUP IS TO IMPROVE THE HEALTH OF THE LOWER WAIAU RIVER.

OUTSIDE OUR COMMUNITY, THE ADVERSE IMPACT OF THE MANAPOURI POWER SCHEME ON THE LOWER WAIAU CATCHMENT IS LITTLE KNOWN. WITHIN OUR COMMUNITY THE SENSE IS THAT THE TE WAEWAE LAGOON IS CLOSE TO COLLAPSE AS A DIRECT RESULT OF MERIDIAN'S REDUCED FLOW REGIME. THE STATE OF THE LOWER WAIAU IS MERIDIAN ENERGY'S DIRTY LITTLE SECRET — THEIR INCONVENIENT TRUTH.

WE STRONGLY SUPPORT THE INTEGRATED MANAGEMENT OF FRESHWATER ENSHRINED IN THE NPS ON FRESHWATER MANAGEMENT OBJECTIVE C1. WE NOTE THAT NPS POLICY E1A REQUIRES FULL IMPLEMENTATION OF THIS POLICY BY 31 DECEMBER 2025.

HOWEVER, NPS POLICY E1BA. ALLOWS FOR THAT 2025 COMPLETION DATE TO BE SET BACK TO 31 DECEMBER 2030 WHERE THE REGIONAL COUNCIL CONSIDERS THAT:

- i. MEETING THE (2025) DATE WOULD RESULT IN LOWER QUALITY PLANNING: OR
- ii. IT WOULD BE IMPRACTICABLE FOR IT TO COMPLETE IMPLEMENTATION OF A POLICY BY THAT DATE (2025)

WE BELIEVE BOTH ARE RELEVANT TO THE WAIAU CATCHMENT.

WITH RESPECT TO CONSIDERATION (I), THE QUALITY OF PLANNING WOULD BE IMPROVED WERE THE TIME FRAME TO BE EXPLICITLY ADJUSTED BY THE REGIONAL COUNCIL, TO ALLOW MATTERS PERTAINING TO THE MANAPOURI POWER STATION RESOURCE CONSENT BEYOND ITS EXPIRY IN 2031, TO BE CONSIDERED CONTEMPORANEOUSLY WITH THE FMU PROCESSES WITHIN THE WAIAU CATCHMENT. THE FMU PROCESS AND THE RESOURCE CONSENT PROCESS ARE NECESSARILY DISTINCT, BUT MUCH OF THE INFORMATION REQUIRED SUCH AS

- LIMIT SETTING,
- ALLOCATION OF THE RESOURCE,
- FLOW REGIMES AND THEIR IMPACT ON ECO SYSTEMS WITHIN THE WAIAU RIVER AND PARTICULARLY THE LOWER WAIAU,

WILL BE COMMON TO BOTH.

THE ALIGNMENT OF THE TIMESCALES WOULD ALLOW COUNCIL, MERIDIAN <u>AND</u> OUR COMMUNITY TO WORK TOWARDS A COMMON FUTURE FOR THE WAIAU CATCHMENT, FOCUSSING COUNCIL'S PLANNING RESOURCES ON INTEGRATED, HIGHER QUALITY PLANNING OUTCOMES RATHER THAN DOING ESSENTIALLY THE SAME WORK, TWICE.

WITH RESPECT TO CONSIDERATION (II), THE RESOURCE CONSENT FOR THE POWER SCHEME EXPIRES IN 2031. SHOULD THE 2025 DEFAULT COMPLETION DATE FOR FMU PROCESSES WITHIN THE WAIAU CATCHMENT **STAND**, THE IMPLEMENTATION OF W&L PLAN POLICY 39A — INTEGRATED MANAGEMENT, ACROSS THE WAIAU CATCHMENT WILL BECOME DIFFICULT TO THE POINT OF BEING IMPRACTICABLE. THE FOCUS WOULD BE ON THE IMPACT OF LAND USE ON A GREATLY REDUCED FRESHWATER RESOURCE. IT IS A NONSENSE TO EMBARK ON LIMIT SETTING, WITHOUT BEING ABLE TO CONSIDER THE ALLOCATION OF THE TOTAL FRESHWATER RESOURCE WITHIN THE CATCHMENT. THE VAST MAJORITY OF THAT RESOURCE IS REPRESENTED BY THE CONSENTED DIVERSION OF FLOW FROM THE LOWER WAIAU BY MERIDIAN, WHICH WILL NOT BE CONSIDERED BEFORE 2031. INTEGRATED MANAGEMENT OF THE FRESHWATER RESOURCE REQUIRES MANAGEMENT OF THE RESOURCE IN ITS ENTIRETY AND MUST INCLUDE THE FULL IMPACT OF THE MANAPOURI POWER SCHEME ON THE LOWER WAIAU CATCHMENT. IN PRACTICAL TERMS, THE TIMING MISMATCH WOULD DEFEAT THE INTEGRATED MANAGEMENT OF THE CATCHMENT'S FRESHWATER RESOURCE.

WE ASK:

"WILL THE POLICY OF INTEGRATED MANAGEMENT OF THE FRESHWATER RESOURCE WITHIN THE WAIAU CATCHMENT, BE BEST SERVED BY THE DEFAULT 2025 OR BY THE ALTERNATIVE 2030, TIMESCALE?"

THE ANSWER IS CLEAR – ONLY A FULL COMPLETION DATE FOR FMU PROCESSES WITHIN THE WAIAU CATCHMENT OF 31 DECEMBER 2030 WILL MAKE THE COMPLETE IMPLEMENTATION OF W&L PLAN POLICY 39A PRACTICABLE.

WE SEEK THE <u>EXPLICIT DEFERRAL</u> OF THE FULL COMPLETION DATE FOR THE FMU PROCESS AS IT APPLIES TO THE WAIAU CATCHMENT UNTIL **31** DECEMBER **2030** IN THE PROPOSED PLAN, AS PERMITTED UNDER NPS POLICY E1BA.I&II. TO ALLOW FOR THE INTEGRATED MANAGEMENT OF THE CATCHMENT'S FRESHWATER RESOURCE, IN ACCORDANCE WITH W&LP POLICY **39**A AND OBJECTIVE **C1** OF THE NPS.

TOPIC 2 - RULE 32 - FDE SYSTEMS

IN 2015, OUR COMPANY RETAINED THE PROFESSIONAL SERVICES OF OPUS INTERNATIONAL CONSULTANTS LTD TO DESIGN AND SUPERVISE THE CONSTRUCTION OF OUR FARM'S FDE SYSTEM. THE DESIGN PROVIDED FOR AN HDPE LINED STORAGE POND FOR EFFLUENT DELIVERED FROM TWO SLUDGE BEDS EACH FITTED WITH WEEPING WALLS. THE REGIONAL WATER PLAN SPECIFICALLY REFERENCED IPENZ PRACTICE NOTE 21 – EFFLUENT STORAGE PONDS – AND SUBSEQUENTLY OPUS PROVIDED A PRODUCER STATEMENT FOR THE POND. NO PRODUCER STATEMENT WAS PROVIDED FOR THE SLUDGE BEDS.

THE PERFORMANCE OF THE SLUDGE BEDS FALLS SIGNIFICANTLY BELOW THE DESIGN BRIEF.

UPON REVIEW IT WAS EVIDENT THAT THE KEY DESIGN PARAMETERS FOR SLUDGE BEDS SET OUT IN IPENZ PRACTICE NOTE 27 — WERE NOT INCORPORATED INTO THE OPUS DESIGN. NOW 24MONTHS ON, OPERATIONALLY NOTHING HAS CHANGED – DISCUSSIONS CONTINUE.

ON THIS POINT OPUS COMMENTED THAT:

"... WHILE YOU RAISED THE REQUIREMENTS OF IPENZ PRACTICE NOTE 27 IN YOUR LETTER DATED 23 FEBRUARY 2016, AT THE TIME OF DESIGN IT WAS NOT A REQUIREMENT TO DESIGN TO THIS PRACTICE NOTE AS IT HAD NOT BEEN ADOPTED AS A DESIGN CRITERIA BY THE CONSENTING BODY ENVIRONMENT SOUTHLAND"

HAD THE REGIONAL WATER PLAN REFERENCED IPENZ PRACTICE NOTE 27 – SLUDGE BED DESIGN, A PRODUCER STATEMENT SPECIFIC TO THE SLUDGE BEDS WOULD HAVE BEEN PROVIDED AND OUR CURRENT IMPASSE WITH OPUS WOULD HAVE BEEN AVERTED.

Some view the explicit referencing of ipenz practice notes within rule 32 as being unnecessarily prescriptive. We see that those references as actually providing farmers with a measure of protection through the mandatory provision of producer statements that otherwise does not exist.

For that reason, we support the specific inclusion in rule 32 of the plan, of ipenz practice note 21 as drafted, but also seek the inclusion within that rule, of ipenz practice note 27 – sludge beds.

TOPIC 3 - RULE 23 - INTENSIVE WINTER GRAZING

FOR THIS WINTER, OUR GRAZIER GREW 174HA OF FODDER BEET, AND GRAZED 6000MA COWS (OUR COWS AMONG THEM) AS PART OF A 2000HA LAND HOLDING. THEIRS IS A LARGE-SCALE OPERATION ACHIEVING EXCEPTIONAL RESULTS. WE UNDERSTAND THAT THE OVERSEER NUTRIENT BUDGET FOR THAT OPERATION REPORTS A TOTAL N LOST TO WATER OF 14KG/HA. OUR GRAZIER EMPLOYS INDUSTRY BEST PRACTICE, BUT THE RELATIVELY LOW N LOSS IS ALSO INFLUENCED BY THE SHEER SCALE OF THE LAND HOLDING.

This is the standard of winter grazing of cows that council should encourage. However, as drafted, rule 23 would require our grazier to get a resource consent. Does this re-inforce best practice? No!

ALL IT WILL ACHIEVE IS INCREASED COMPLIANCE COSTS.

IF HOWEVER, A MIXED THRESHOLD FOR RESOURCE CONSENT WERE USED — SUCH AS THE GREATER OF 50HA OR 10% OF EFFECTIVE AREA — THE MITIGATING EFFECT OF HAVING A LARGE AREA OF A LAND HOLDING NOT IN CROP, AS IS THE CASE FOR OUR GRAZIER, WOULD BE INCORPORATED INTO THE RULE.

WE HAVEN'T ATTEMPTED TO MODEL THE NUMBER OF CONSENT APPLICATIONS SUCH A RULE MIGHT GENERATE, BUT WE WOULD EXPECT A SIGNIFICANT REDUCTION IN THE NUMBER OF CONSENTS REQUIRED COMPARED WITH RULE 23 AS DRAFTED. WHILE THAT WOULD GIVE COUNCIL LESS DIRECT OVERSIGHT OF WINTERING, THERE IS AN OPPORTUNITY TO IMPROVE ENVIRONMENTAL OUTCOMES FROM GOOD MANAGEMENT PRACTICE (GMP'S) ACROSS ALL WINTER CROPPING ACTIVITIES.

WE HAVE IN MIND THAT THE MIXED THRESHOLD FOR CONSENT, COULD BE SUPPORTED BY MORE GMP'S INCORPORATED INTO THE PERMITTED ACTIVITY REQUIREMENTS FOR ALL WINTERING, IRRESPECTIVE OF AREA. FOR THE MOST PART, THESE GMP'S ARE NOT ROCKET SCIENCE. SIMPLE STRATEGIES GUIDING PADDOCK SELECTION AND CROP FEEDING MANAGEMENT HAVE BEEN SHOWN TO HAVE SIGNIFICANT IMPACT ON NUTRIENT LOSS. BUT AS WE DRIVE AROUND THE PROVINCE WE SEE EXAMPLES OF POOR WINTER CROPPING PRACTICE THAT COULD SO EASILY BE REMEDIED: FOR EXAMPLE, CROPS GROWN THROUGH SWALES WHICH TURN INTO EFFLUENT-CHARGED PONDS OVER WINTER ONLY TO BE DRAINED INTO THE NEAREST STREAM COME SPRINGTIME, AND CROPS GROWN ON SLOPING GROUND AND GRAZED UP THE SLOPE.

IF RULE 23 REQUIRED CRITICAL SOURCE AREAS TO BE LEFT UNCULTIVATED AND FENCED OFF FROM STOCK WHILE THE SURROUNDING CROP IS GRAZED, AND REQUIRED CROPPED SLOPES TO BE GRAZED TOP TO BOTTOM, SUCH SIGHTS WOULD BECOME A THING OF THE PAST.

WE BELIEVE THAT REAL ENVIRONMENTAL GAINS CAN BE GARNERED THROUGH FOCUSSING ON THESE "LOW HANGING FRUIT" ON ALL WINTER CROPS, REGARDLESS OF SIZE, THROUGH AN AMENDED RULE 23, SUPPORTED BY THE ON-GOING EXTENSION WORK OF ES'S LAND SUSTAINABILITY TEAM

IN SUMMARY, WE BELIEVE THAT SCALE TOGETHER WITH GOOD MANAGEMENT SHOULD FORM THE BASIS FOR RULE 23. WE SEEK AMENDMENT OF RULE 23 TO BECOME A MIXED RULE WHERE WINTER GRAZING AREA REQUIRES CONSENT IF THE CROP AREA IS THE GREATER OF EITHER 10% OF THE EFFECTIVE AREA OF EACH LAND HOLDING OR 50HA, BUT WITH ADDITIONAL GOOD MANAGEMENT PRACTICE SPECIFIED WITHIN THE RULE AS PERMITTED ACTIVITY STANDARDS, APPLYING TO ALL GRAZIERS REGARDLESS OF SIZE.

TOPIC 4 – ACCOUNTING FOR ALL SOURCES OF NITROGEN AND PHOSPHOROUS CONTRIBUTED TO FRESHWATER

ALL SOURCES OF NITROGEN AND PHOSPHORUS CONTRIBUTED TO FRESHWATER SHOULD BE SUBJECT TO THE SAME REGULATORY OVERSIGHT. NPS OBJECTIVE CC1 AND NPS POLICY CC1 REQUIRE REGIONAL COUNCILS TO ESTABLISH AND OPERATE A FRESHWATER QUALITY AND QUANTITY ACCOUNTING SYSTEM FOR FMUS IN THE CONTEXT OF FRESHWATER OBJECTIVES AND LIMIT SETTING.

THE EXOTIC FISHERY CONTRIBUTES BOTH N AND P IN EXCRETA TO THE FRESHWATER COLUMN. THOSE CONTRIBUTIONS SHOULD BE INCLUDED WITHIN COUNCIL'S FRESHWATER QUALITY AND QUANTITY ACCOUNTING SYSTEM, WHICH WOULD THEN INFORM THE LIMIT SETTING PROCESS.

WE SEEK A POLICY OBJECTIVE AND RULE FRAMEWORK TO ACCOUNT FOR AND TO MANAGE PHOSPHOROUS AND NITROGEN DISCHARGES TO FRESHWATER BY THE EXOTIC FISHERY.

IN SUMMARY, YOU HAVE HEARD FROM US TODAY ON 4 TOPICS WHICH IMPACT ON OUR BUSINESS, AND WE SEEK:

- 1. THE <u>EXPLICIT DEFERRAL</u> BY COUNCIL OF THE COMPLETION DATE FOR THE FMU PROCESS AS IT APPLIES TO THE WAIAU CATCHMENT UNTIL 31 DECEMBER 2030, AS PERMITTED UNDER NPS POLICY E1BA.I&II., TO IMPROVE THE QUALITY OF PLANNING AND TO MAKE PRACTICABLE THE IMPLEMENTATION OF W&LP POLICY 39A – THE INTEGRATED MANAGEMENT OF THE WAIAU CATCHMENT'S FRESHWATER RESOURCE.
- 2. THE INCLUSION OF IPENZ PRACTICE NOTE 27 SLUDGE BEDS WITHIN THE W&LP RULE 32
- **3.** The adoption of mixed criteria as the basis for rule 23 intensive grazing with additional permitted activity standards making good management practice explicit.
- **4.** A POLICY OBJECTIVE AND RULE FRAMEWORK TO ACCOUNT FOR AND TO MANAGE PHOSPHOROUS AND NITROGEN CONTRIBUTIONS TO FRESHWATER BY THE EXOTIC FISHERY.

IN CLOSING, AS A BUSINESS, WE'RE ENERGISED BY THE PROSPECT OF SCIENCE-LED INNOVATION WHICH WILL LIFT ON-FARM PERFORMANCE AND SHRINK OUR ENVIRONMENTAL FOOTPRINT. INNOVATION UNDERPINS OUR FAMILY BUSINESS AND WILL ENSURE THAT OUR GRANDCHILDREN AND GENERATIONS YET UNBORN CAN ACCESS THE SAME HIGH-QUALITY FRESHWATER RESOURCE OUR GENERATION ONCE ENJOYED.

PAUL AND JUANITA MARSHALL