# IN THE HIGH COURT OF NEW ZEALAND AUCKLAND REGISTRY

CIV-2006-404-3544 CIV-2006-404-3546

UNDER the Resource Management Act 1991

IN THE MATTER OF an appeal pursuant to s 299 of the Act

BETWEEN THE FRIENDS OF PAKIRI BEACH

Second Appellant

AND AUCKLAND REGIONAL COUNCIL

First Appellant/First Respondent

AND SEA-TOW LIMITED AND MCCALLUM

BROS LIMITED Second Respondents

Hearing: 11 and 12 March 2009

Appearances: NRW Davidson QC and JA Carnie for Appellant

AMB Green and J Young for First Appellant/First Respondent

JK McRae and AF Buchanan for Second Respondents

Judgment: 26 March 2009 at 1:00 pm

## JUDGMENT OF ASHER J

This judgment was delivered by me on 26 March 2009 at 1:00 pm pursuant to Rule 11.5 of the High Court Rules

Registrar/Deputy Registrar	•
Date	•

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[1] The Auckland Regional Council ("ARC") and The Friends of Pakiri Beach ("Friends of Pakiri") have appealed a decision of the Environment Court. That decision granted consents to Sea-Tow Limited ("Sea-Tow") and McCallum Bros Limited ("McCallum Bros"), the second respondents, allowing them to continue to extract sand from the near-shore areas of the Mangawhai-Pakiri embayment in the northern Hauraki Gulf. Although the ARC and Friends of Pakiri have filed separate appeals, by consent they have been consolidated and heard together in this proceeding. The appeals are brought under s 299 of the Resource Management Act 1991 ("the Act").

# **Background**

- [2] Pakiri Beach is a long white sand beach situated about 90 kilometres north of Auckland. It is described in the Auckland Regional Policy Statement as the only exposed east coast surf beach free of housing and backed by extensive sand dunes and dune lakes. It is identified in the Auckland Regional Plan as an outstanding natural landscape. For some 80 years sand has been dredged and extracted from the sea bottom of the near-shore areas at depths of five to ten metres. Sea-Tow Limited, McCallum Bros Limited and others had been independently extracting sand from the general area at the rate of approximately 110,000 m³ per annum. The sand is of high quality and suited to high strength ready-mixed concrete manufacture. The sand extracted from the area represented approximately 50 per cent of the Auckland Region's requirement for ready-mixed concrete. There was, therefore, a history against which to assess the effects of dredging.
- [3] The general marine area in which the dredging occurs is known as the Mangawhai-Pakiri embayment, the embayment being a coastal area extending from Cape Rodney in the south to Bream Tail in the north. The actual dredging in question in this appeal is from two strips of the sea bottom each about five kilometres long, and generally starting at about 200 to 300 metres off shore.
- [4] The barge used to extract sand is required to operate at least 100 metres seaward from the crest of the near-shore bar, and in not less than five metres depth of

water. The dredging is usually carried out in water between 5 and 10 metres in depth. In practice this has required the barge to operate at least 200 metres off-shore and usually at about 300 metres.

- [5] The previous resource consents were to expire in 2005. They had permitted Sea-Tow to extract 25,000 m<sup>3</sup> of sand per annum and McCallum Bros 45,000 m<sup>3</sup>. Sea-Tow and McCallum Bros applied for new resource consents: Sea-Tow to extract 27,000 m<sup>3</sup> of sand per annum for 20 years, and McCallum Bros to extract 49,000 m<sup>3</sup> for 20 years, a total of 76,000 m<sup>3</sup> per annum rather than the previous 70,000 m<sup>3</sup>. In October 2005 McCallum Bros acquired Sea-Tow's sand extraction business and the Sea-Tow permit. For all intents and purposes McCallum Bros alone is the respondent.
- [6] The aspects of the proposals requiring consent under the Act were described in the Environment Court decision as follows:
  - a) disturbance of the sea bed (s 12(1)(c) and (e));
  - b) removal of sand breaks (s 12(2));
  - c) the activity of extraction (s 12(3));
  - d) occupation of extraction sites by barge for the purposes of extraction;
    and
  - e) ancillary discharges of seawater, excess sand and shell into the sea (s 15(1)(a)).
- [7] The applications were notified by the ARC and a total of 678 submissions were received, 658 opposing the applications and 20 supporting them. The applications were declined by the ARC. The respondents appealed to the Environment Court. The Environment Court heard the appeals over 13 sitting days in December 2005 and February/March 2006. It heard evidence from 15 expert witnesses and a similar number of residents and other lay witnesses. Of the expert witnesses, eight gave evidence in relation to coastal processes. These were

Dr Barnett, Dr Goring and Dr Todd for the respondents, Dr Hughes for the ARC, Dr Dean and Mr LaBonté for Friends of Pakiri, Dr Hayton for the Director-General of Conservation, and Dr Nichol for the University of Auckland. All the experts, save those called for the respondents, gave evidence not supportive of the application.

## Legal framework

- [8] The applications were heard initially by a Committee of the ARC. At the time the ARC treated those activities as restricted coastal activities and there was an appointee of the Minister of Conservation on the Committee.
- [9] The Environment Court in reaching its decision found that the proposal was not in fact a restricted coastal activity. Rather, it concluded that the proposal was for a discretionary activity. Thus, rather than having a recommendatory jurisdiction the Court had jurisdiction to grant or refuse the applications, and if it granted them to impose conditions under s 108 of the Act. This aspect of the Environment Court's decision was not challenged.

#### The decision

[10] The Environment Court delivered its decision on 30 May 2006. It was 120 pages long and consisted of 566 paragraphs. It granted the coastal permits sought by McCallum Bros for 14 year terms. The decision referred to the experts called by the parties, and identified the primary legislation and the statutory instruments. Having determined that the proposal was for a discretionary activity the Court proceeded to consider the proposal in the light of the relevant considerations set out in the primary legislation and statutory instruments. It considered the potential effects on the environment. It found that the proposal would be economically efficient in delivering to Auckland sand of quality suitable for readymixed concrete, including as it did the use of barge transport and the avoiding of the external effects of land transport including heavy traffic movements, carbon dioxide emissions and congestion effects. In its judgment it concluded that the efficient use of the natural and physical resources involved would be of beneficial effect on the environment if the proposed activity were allowed.

- [11] It then turned to the issue of adverse environmental effects of the proposal. It traversed these issues over some 65 pages. A crucial area of dispute was whether the sand that was being removed would be naturally replaced, thus minimising the environmental effects of the dredging. The Court ultimately concluded that there was a total input of sediment to the system of around 150,000 m³ per year. It decided that given the inputs the proposed extraction was not unsustainable: at [340]. It concluded that signs of shoreline retreat and erosion, which had been discerned at the beach could not be attributed to past sand extraction, and that past sand extraction had had no detectable effect on the environment: at [338]. It also concluded that there were not current sources of sand suitable for ready-mixed concrete manufacture that were alternative to the near-shore areas that were the subject of the applications: at [436].
- [12] The Court noted that a precautionary approach to an application could be appropriate where there was scientific uncertainty or ignorance about the nature or scope of the environmental harm: at [463]. It stated, having referred to the difference amongst the expert witnesses on the potential effects from the depletion of the sand resource, at [464]:

The difference was not about how such effects might arise, what would create them, what might cause them. Rather the difference was mainly one of interpretation of the evidence on whether the sand system is closed or not.

By closed it meant, not being naturally in receipt of further sand to replenish the sand extracted.

[13] The Court considered a number of other arguments including the relevance of previous decisions relating to the extraction of sand in the area and the need for consistent decision-making. It considered a suggestion of Friends of Pakiri that the Court should have regard to an earlier decision of the Northland Regional Council declining an application to dredge sand from an area just north of the subject area outside of Mangawhai Harbour. It rejected the submission that that decision had relevance. It also rejected as irrelevant, evidence given as to the experience of sand extraction in other countries. It rejected the request of McCallum Bros for coastal permits of 20 year terms. It ultimately determined that the appeal should be allowed. It granted coastal permits for dredging for 14 year terms.

## **Procedural history**

[14] The procedural history of the appeal was complex. It is not necessary to traverse the details. In a judgment of 2 March 2007 Winkelmann J had determined that most of the appeal points raised by Friends of Pakiri did not relate to issues of law. They were struck out. However, ultimately by consent the appeal against that decision was allowed, and this appeal has proceeded.

# The approach to be taken

- [15] All of the grounds of appeal raised by the ARC and Friends of Pakiri relate in one way or another to the evidence. The ARC and Friends of Pakiri recognise this, but say that the errors of fact are of such a dimension that they amount to errors of law. Eight of the grounds of appeal advanced by Friends of Pakiri in the amended notice of appeal involve an allegation that the Environment Court made findings without probative evidence, or findings that were not reasonably open to the Court on the probative evidence available. Two of the grounds alleged a failure to take into account relevant and probative evidence. Seven further grounds are listed under the headings "acceptance of unreliable opinion evidence" and "breach of natural justice". The ARC's appeal is advanced on the basis that there was no evidence before the Environment Court capable of supporting certain of its findings, and that the Environment Court erred by taking into account irrelevant matters.
- [16] Thus, as all counsel appreciated, the appeal squarely raises the ambit of an appeal under s 299(1) of the Act. The section provides:

## 299 Appeal to High Court on question of law

- (1) A party to a proceeding before the Environment Court under this Act or any other enactment may appeal on a point of law to the High Court against any decision, report, or recommendation of the Environment Court made in the proceeding.
- [17] Counsel accepted the well established categories of error of law set out in *Countdown Properties (Northlands) Ltd v Dunedin City Council* [1994] NZRMA 145, 153, being that the deciding body appealed from:

- Applied a wrong legal test; or
- Came to a conclusion without evidence or one to which, on evidence, it could not reasonably have come; or
- Took into account matters which it should not have taken into account; or
- Failed to take into account matters which it should have taken into account.

Categories (b), (c) and (d) can all require the appeal court to consider the evidence that was before the deciding body.

[18] The courts have grappled with the issue of how far a consideration of facts by an appellate court can go. A commonly accepted articulation of the position is that of Lord Radcliffe in *Edwards v Baistow* [1956] AC 14, 36, a decision cited with approval by the Supreme Court in *Bryson v Three Foot Six Limited & Ors* [2005] 3 NZLR 721 at [26]. The Supreme Court stated:

An ultimate conclusion of a fact-finding body can sometimes be so insupportable - so clearly untenable - as to amount to an error of law: proper application of the law requires a different answer. That will be the position only in the rare case in which there has been, in the well-known words of Lord Radcliffe in *Edwards v Baistow*, a state of affairs "in which there is no evidence to support the determination" or "one in which the evidence is inconsistent with and contradictory of the determination", or "one in which the true and only reasonable conclusion contradicts the determination". Lord Radcliffe preferred the last of these three phases but he said that each propounded of the same test.

[19] An appellant seeking to assert that there was no evidence to support a finding or that the only reasonable conclusion contradicts the actual determination faces "a very high hurdle": *Bryson* at [27]. It has been said frequently that the court will not allow litigants to use appeals as an occasion for revisiting the merits of decisions under the guise of a question of law: *Manukau CC v Trustees of Mangere Lawn Cemetery* (1991) 15 NZTPA 58, 60; *Skinner v Tauranga District Council* HC AK AP98/02 5 March 2003 at [13]. The question of the weight to be given to the assessment of relevant considerations is for the Environment Court alone, and not for reconsideration by the appellate Court: *Hunt & Moriarty v North Shore City Council* [1994] NZRMA 433; *Nicholls v District Council of Papakura* [1998] NZRMA 233 at 235.

- [20] It is clear, however, that it is an error of law for a deciding body to fail to draw from unchallenged primary facts an inference in favour of a party when that inference was the only one reasonably possible: *Smiturnugh Limited v Auckland City Council* HC AK AP28/00 6 July 2000, Fisher J. Certainly if a court's decision is one that the appellate court is satisfied could not have been reasonably reached, that may be a basis for a successful appeal: *Centerpoint Community Growth Trust v Takapuna City Council* [1985] 1 NZLR 702 at 706; *Hutchinson Bros v Auckland City Council* (1988) 13 NZTPA 39, 44. But a Court must be cautious not to persuade itself that because it might have reached a different conclusion, the Tribunal, which did so, was wrong: *Bryson* at [27].
- [21] Bearing in mind these principles I now turn to the appeals. It is convenient to rearrange the points raised, which can be dealt with under broad headings.

#### Shoreline retreat and erosion

- [22] Under this heading I consider paragraphs 2.1.1 2.1.3 of Friends of Pakiri's amended notice of appeal points.
- [23] The Environment Court found shoreline retreat and erosion evident: at [338]. However, it found that this could not be attributed to past sand extraction: at [338]. It went further and stated that the past extraction had had no detectable effect: at [338]. It found that the historical extraction within the near-shore area had not been causatively linked to adverse environmental effects: at [513]. Friends of Pakiri submitted that these interlinked findings were erroneous. It was submitted that the evidence of the experts called by McCallum Bros, Dr Goring and Mr Todd, did not provide an evidential basis upon which the Court could conclude that the signs of retreat and erosion were not caused by the extraction of sand in the embayment, and that the extraction had not had an adverse effect on the environment.
- [24] In their submissions Friends of Pakiri proceeded to analyse the evidence in considerable detail with references to the actual evidence provided by Dr Goring and Mr Todd, and the competing evidence provided by the experts for Friends of Pakiri,

particularly Dr Dean. A number of lay witnesses had given evidence as to what they had actually observed on the beach.

- [25] There have undoubtedly been significant changes to the beach over the past 20 years. There was some evidence of shoreline retreat and erosion. However, it was the evidence of the expert called by McCallum Bros, Dr Goring, that these changes could be explained by wave activity and by survey error. Another McCallum Bros expert, Mr Todd, gave evidence that the changes could not be attributed to the extraction. There was evidence that in addition to sand retreat in places, there was also evidence elsewhere of sand accretion.
- [26] A reading of the evidence of Mr Todd and Dr Goring shows an ample basis for the Environment Court's conclusion that shoreline retreat and erosion could not be attributed to past sand extraction. For instance, Mr Todd said at paragraph 7.6:

My principle conclusion from the analysis is that while there is evidence of erosion in some places, this is as a result of coastal processes and is within the variations that are produced by the natural operation of those processes. None can be identified with any certainty as being attributable to sand extraction. This conclusion is not very different from that reached in the sand study.

Dr Goring commented in his evidence, after examination of the beach profile data and analysis of wave data, that:

The beach volumes at Pakiri Beach exhibit no significant change that cannot be explained by wave activity and survey error.

[27] The Environment Court considered this evidence at considerable length: at [288]-[337]. It is clear from these paragraphs that it did consider all the evidence adduced in opposition, but did not consider that it should be preferred to that of Dr Goring and Mr Todd. It noted that the sand profiles in the extraction areas were similar to those in control areas where extraction was not occurring: [301], [305] and [319]. It concluded at [338] that, relying on the evidence of Dr Goring and Mr Todd, signs of shoreline retreat and erosion could not be attributed to past sand extraction, and that past extraction had had no detectable effect on the environment.

[28] Counsel for Friends of Pakiri had analysed this evidence at considerable length in some five pages of submissions and 23 page and line references to the evidence were given to the Environment Court. However, this Court on appeal on a point of law will not get involved in a qualitative analysis of the evidence of experts. To do so would be to defy the limitation imposed upon the appellate Court by s 299 of the Act that the appeal must be on a point of law. The Environment Court is a specialised Court, the members of which are expert in particular disciplines important to the determination of environmental issues. Section 299 indicates a decision by the legislature to leave the factual decision-making to the Environment Court and for that decision-making to not be revisited on an appeal. Thus it was stated by Salmon J in *Green & McCahill Properties Limited v The Auckland Regional Council* HC AK 4/97 18 August 1997 at p 16:

No question of law arises from the expression by the Environment Court of its view on a matter of opinion within its specialist expertise: *J. Rattray & Son Ltd v Christchurch City Council* (1983) 9 NZTPA 385. The Environment Court's special expertise and experience enable it to reach conclusions based on the sound judgment of its members, without needing or being able to relate them to specific findings of fact. This is particularly so in cases of planning discretion: *Lynley Buildings Ltd v Auckland City Council* (1984) 10 NZTPA 145 HC and *EDS v Mangonui County Council* (1987) 12 NZTPA 349.

Mr Bartlett for the appellants warned against the danger of accepting an Environment Court decision just because it was an expert Tribunal. It would, of course, be inappropriate to do so. Its expertise cannot save decisions which do not meet the principles set out above. However, it is important to bear in mind that the Court is required constantly to make decisions relating to planning practice, it is constantly required to assess and make decisions relating to conflicting expert opinion. Members of the Court are able to contribute to the formation of a judgment as a result of experience gained in other professional disciplines. These considerations and the fact that the Court is constantly exposed to litigation arising from the application of the Resource Management Act, justifies the respect which this Court and the Court of Appeal has customarily accorded its decisions.

[29] Mr Davidson QC for Friends of Pakiri argued that the evidence of the McCallum Bros experts was not sufficiently positive to warrant the conclusion that past extraction had no detectable effect. I do not accept this. There was, in essence, a positive conclusion put forward by Dr Goring and Mr Todd that they did not consider that the sand mining had caused the erosion. The evidence to the contrary by the appellants' expert was not accepted by the Environment Court. It was the

objectors who were trying to show that erosion was being caused by sand mining, and they failed to do so.

- [30] Factual issues in resource management cases often come down to matters of opinion, that are not capable of proof as a matter of logical progression, but are rather established on the basis of a choice of competing expert conclusions. Sometimes flaws in that expert evidence can be established, and this will lead to rejection of that evidence. But often the choice can be no more than a matter of preference. This is why the legislature has created a specialist Environment Court with the expertise and experience to make such decisions. This is also why a non-specialist appellate court is not well suited to rehearing such issues. It is relevant that the Environment Court is itself an appellate court, considering the matter for the second time following an earlier consideration by the local authority.
- [31] Section 276 of the Resource Management Act provides that the Environment Court may receive anything in evidence that it considers appropriate to receive (s 276(1)(a)), and that it is not bound by the rules of evidence that apply to judicial proceedings. This, together with s 299, shows that it is recognised that the Environment Court is a specialist Tribunal with a particular ability to evaluate evidence and the weight to be accorded to it.
- [32] In this submission and in others Mr Davidson relied on dicta of the West Australian Court of Appeal in *Amaca Pty Limited v Hannell* [2007] WASCA 158. He submitted that, as stated in [144] of that decision, a Tribunal must provide a process of reasoning or elaboration upon which a preference for a particular expert's conclusion is reached. He quoted from [186]:

As I have observed, in a case of competing expert testimony, a trial judge is obliged to explain the process of reasoning which has caused the acceptance of one view over another. The reasons for decision in this case do not reveal that process.

These comments were made in the context of an orthodox civil appeal from a court below. There was no appeal limited to a question of law as here. The Environment Court works in a different situation from a trial court in ordinary civil proceedings.

It deals with issues which often cannot be determined with certainty, and where there may be no provable right or wrong answer.

- [33] It is not possible for the Environment Court to be able always to set out a detailed chain of reasoning in relation to the acceptance of one view over another, where those competing views themselves may have been expressed tentatively or without full reasons. Nevertheless, there are occasions when a choice must be made, and on those occasions the Environment Court is inevitably constrained in the level of explanation it gives for the preference of one view over another by the evidence it has received. Where possible, it is desirable to give full reasons for a preference, and I do observe that on this point the Environment Court carefully did explain its process of reasoning.
- [34] I refuse to engage further in the analysis put forward by Friends of Pakiri, where parts of the evidence are examined in detail. The whole purpose of the limitation of the grounds for appeal under s 299 is to avoid such an analysis on appeal. For instance I heard submissions pointing to the cross-examination of Mr Todd and assertions that his evidence was in the end equivocal. Clearly in response to some questions in cross-examination he may have expressed himself in less certain terms than he did on other occasions, but he did not change his mind and retract his conclusion. Analysis of the strength or weakness of the experts' statements was for the Environment Court. It is not for this Court to reconsider that analysis.
- [35] Therefore, on this point, there was evidence to support the Court's finding that erosion and changes to the beach and landforms had not been caused by dredging. The Court's acceptance of certain evidence on this point and rejection of other evidence was a quintessential exercise of resource management judgment. I conclude that there was no error of law made by the Environment Court in reaching its conclusions in this area.

#### The sea level rise

- [36] Under this heading I consider paragraph 2.2.1(i) of Friends of Pakiri amended notice of appeal points.
- [37] It was submitted for Friends of Pakiri that the Environment Court failed to take into account evidence as to sea level rise and the quantifiable effects of erosion within the relevant near-shore and sand system.
- [38] Dr Dean, an expert called by Friends of Pakiri, stated that to off-set the effect of sea level rise inputs of new sediment of between 38,000 m<sup>3</sup> and 50,000 m<sup>3</sup> would be needed along the Mangawhai-Pakiri embayment near-shore. Another expert called by the ARC, Dr Hume, discussed the precise measurement of the effects of sea level rise. Mr Davidson criticised the conclusions of the Environment Court at [269]-[271], submitting that the Court wrongly interpreted Dr Hume's evidence as being that sea level rise would not have measurable effects. In fact, Mr Davidson submitted, Dr Hume when he referred to no measurable effects was referring to the effects of sand extraction.
- [39] Dr Hume in his brief of evidence stated that the effects of sea level rise were reasonable, and that sand extraction would worsen the resulting erosion. Under cross-examination Dr Hume indicated that there would be no measurable effects from sand extraction. A little earlier in his evidence he had stated that sea level rise would be a "small amount". It was open to the Environment Court to interpret that statement, when followed by a statement that he could not say that there would be measurable effects of sand extraction from the beach, as meaning that he was asserting that sea level rise itself would not have measurable effects, contrary to his earlier view. The Court in its conclusion at [271] stated:

As Dr Hume gave a coherent basis for his opinion, and Dr Dean did not, we prefer the former's evidence, and find that over the 20-year term of extraction applied for, sea-level rise would not have measurable effect.

[40] The Environment Court's interpretation of the cross-examination of Dr Hume was that against the backdrop of extraction, sea level rise would not have measurable effects. The decision reached was open to the Environment Court. Even if the

Environment Court misstated Dr Hume in asserting the sea level rise would not have measurable effect, that measurable effect was only relevant if the sand extraction would worsen the situation. The Court's essential conclusion was that sea level rise in relation to the proposed extraction would not measurably cause erosion. Any error by the Court in this aspect of its factual reasoning did not effect that central conclusion.

## Sand replenishment

- [41] Under this heading I consider the ARC appeal and paragraph 2.1.5 of Friends of Pakiri's amended notice of appeal points.
- [42] As observed in [11] above, the Court concluded that there was a total input to the Mangawhai-Pakiri sand system of around 149,700 m<sup>3</sup> per year, including 90,000 m<sup>3</sup> from breakdown of shell. The core point of the ARC appeal was:

The finding that shell breakdown material contributed 90,000 m<sup>3</sup> of sediment to the Mangawhai-Pakiri sand system was one which, on the evidence, the Environment Court could not reasonably have come to.

Friends of Pakiri also submitted that the finding of the contribution of 90,000 m<sup>3</sup> was not supported by the evidence, and that the expert opinions given were unfounded evidence masquerading as expert hypothesis. They submitted that evidence showed that the maximum inflow of sand into the relevant area was 12,000 m<sup>3</sup>.

- [43] It is fair to characterise this issue as the most important point on the appeal, and it certainly occupied the most time in submissions. Those submissions traversed the evidence in detail. Mr Davidson for Friends of Pakiri described the point as the big issue in the case.
- [44] The conclusion that was attacked is that set out at [266] of the decision:

So we find that the total input to the Mangawhai-Pakiri sand system is on average around 149,700 cubic metres per year, being the aggregate of 22,700 from cliff erosion and rivers, 25,000 from Bream Bay passing around the Bream Tail headland, 90,000 from breakdown of shell, and 12,000 from deeper water passing across the inner shelf.

Mr Davidson submitted that the only input that was in fact established on the evidence was the 12,000 m<sup>3</sup> from deeper water passing across the inner shelf. While attacking the figure of 22,700 from cliff erosion and rivers, and 25,000 from Bream Bay passing around the Bream Tail headland, his primary focus was on the "90,000 from breakdown of shell". Mr Green for the ARC focused entirely on the submission that the conclusion that there was 90,000 from breakdown of shell was erroneous.

- [45] The topic of shell growth and shell breakdown was considered at length by the Environment Court. At [183] it focused on inputs into the system from external sources. It referred to the "system" of the Mangawhai-Pakiri embayment. It noted that three experts called by those opposing the application, Dr Hilton, Dr Nichol and Mr LaBonté were all of the opinion that there was no significant amount of sediment entering the system from external sources. It noted that Dr Dean, another expert called by Friends of Pakiri, considered that only a small amount entered the system from fluvial and cliff erosion sources. It quoted from an expert called by the ARC, Dr Hume, who considered that on average the input would be around 20,000 m<sup>3</sup> per year, and it referred to Dr Barnett's opinion that the total input from all external sources was about 150,000 m<sup>3</sup> per year. Much of the focus of submissions was on the differences between the evidence of Dr Hume and Dr Barnett.
- [46] The essence of at least Mr Davidson's submission was that the claim of 90,000 m<sup>3</sup> from breakdown of shell was that it was a hypothesis, relying on the fact that because there had been sand mining and there had been no proven sand erosion, there must have been such inputs. This was attacked as a circular reasoning process, not based on hard evidence of shell breakdown.
- [47] All experts referred to as a background matter a Mangawhai-Pakiri Sand Study ("the sand study") that had been carried out in 1995 to investigate and report on the extent and volume of the Mangawhai-Pakiri sand resource and the sustainable level of near-shore extraction of sand. One of the documents produced was a sonar survey showing the sea floor pattern of the embayment. That survey showed horse mussels growing on large areas within the embayment. There was also other evidence of shells growing within the embayment. Dr Hume produced a schematic

representation of the main components of what was called the "sand budget" showing "shell production". It was the case for McCallum Bros that the shellfish would in due course die and their shells would in due course become sand.

[48] It was revealed in cross-examination that Dr Hume did not make any allowance at all for sand increase from shell breakdown in his calculations. He did, however, concede in cross-examination that there would be shell production within the relevant area. He also conceded in cross-examination that there was not any real dispute between him and Dr Barnett that there could be substantial shell production within "the box". He accepted that he had not made any estimate of shell production within "the box" was the term used on occasions by the experts to refer to the area along Pakiri beach from the exposed sand on the shoreline to what was called the "closure depth" of 25 metres. The exact exchange was as follows:

Is there then any real dispute between you and Dr Barnett that there is substantial shell production within the box?--- We both agree that there's shell production within the box.

Right, it's just that you've omitted that from your sediment budget?--- Yes.

So is there any real dispute between you and Dr Barnett that the extent of the shell production within the box may be quite substantial?--- No.

Dr Barnett has made an estimate of 90,000 cubic metres a year, have you made an estimate?--- No.

[49] Dr Barnett in his evidence had relied on several reports including the sand study of shell production of 90,000 m³ per year within the whole embayment area. The sand study discounted the rate down to 12,000 m³ per year. He concluded that it was appropriate to give a "net source" of 90,000 m³ from shell growth. He was critical of Dr Hume's much more conservative opinion. He admitted in cross-examination that there was nothing magical about his figure of 90,000 m³ from shell breakdown and that it might be a figure that could be interchanged with his estimate of 40,000 m³ coming around Bream Tail, but he believed that the greater amount was likely to be from shell production. He amplified in cross-examination what he meant by 90,000 m³ of shell growth from within the system. He said that this was generation from molluscs that grew shells. It was his evidence that the 90,000 m³ was being generated from within "the box".

- [50] At [225]-[248] the Court assessed over five pages the competing views on the creation of sand from shell growth. It noted Dr Barnett's acknowledgement that his proportions of sand replenishment from shell growth and sand flows around Bream Tail were not precise, and that they might in fact be different. It went through the opinions to the contrary from Dr Hume and other experts. It rejected the opinion of another expert, Dr Nichols', questioning the relevance to the proceedings of the contribution from the breakdown of shell and stated at [248]:
  - ... on reviewing the opinions of the expert witnesses we consider that Dr Barnett's opinion (which Dr Nichol stated that he did not dispute) is acceptable as a basis for a finding on the balance of probabilities. We find that the contribution to the system from breakdown of shell is of the order of 90,000 cubic metres per year on average.
- [51] While it may have been a factor in Dr Barnett's reasoning that it was not established that erosion had been caused by the sand dredging, Dr Barnett's evidence contained a positive opinion. That opinion was that there was shell growth in the relevant area which would give rise itself to sufficient volumes to compensate for the sand that was extracted. There was clear evidence that shellfish did grow within the area, and yet none of the experts called by those who opposed the application, with the possible exception under cross-examination of Dr Hume, were prepared to accept shell growth as a significant input. This was a deficiency in the ARC and Friends of Pakiri case.
- [52] There was also an argument about the Environment Court's use of the words "deeper water" in relation to shellfish growth. The ARC suggested that any breakdown of shell that existed took place in deeper water and could not contribute to the relevant system. However, this is a semantic argument, and the word "deeper" is relative. The Environment Court had a proper basis for concluding that in the waters of the relevant system growth occurred within the 25 metre closure depth. The sand system regenerated from within.
- [53] Mr Green was critical of what he said was the Court's failure to accurately identify various areas or compartments in the embayment. However, the Court's use of terminology and its reasons for its findings are readily comprehensible, and no misunderstanding or error has been shown.

- [54] The ARC and Friends of Pakiri in their submissions made further criticisms of the evidence of Dr Barnett on this point, questioning the terminology and assumptions of Dr Barnett, and those adopted by the Environment Court. However, it is not necessary for the purposes of this appeal to go further than to record that there was evidence before the Environment Court on which it could conclude, if it accepted that evidence, that there was 90,000 m<sup>3</sup> of shell growth available to compensate for the sand mined on a per annum basis.
- [55] In the end the reasoning has not been shown to be circular. The evidence that there was an accumulation of 90,000 m<sup>3</sup> of sediment from shell production did not arise just from the assumption that the coastline was stable and that therefore there must have been some replenishment. Rather, while that may have been a relevant factor, there was hard evidence of shellfish growth in the area and for reasons that are difficult to understand, this was not given any weight in the evidence of the experts who opposed the application.
- [56] As noted earlier in this judgment, the Court must resist attempts by litigants to use appeals to the High Court as an occasion to revisit the merits of resource management decisions under the guise of questions of law. This was an attempt to re-examine the Court's assessment of the conflicting evidence before it. No error, or conclusion not supported by any evidence was shown.

# The finding that 25,000 m<sup>3</sup> of sand flows into the embayment around Bream Tail

- [57] Under this heading I consider paragraph 2.1.6 of Friends of Pakiri's amended notice of appeal points.
- [58] Dr Barnett had given evidence that he estimated that up to 40,000 m<sup>3</sup> of sediment per annum could flow into the embayment around Bream Tail. It was Dr Hume's evidence that any such input would be much less than 5,000 m<sup>3</sup>. The Court set out the competing opinions and then made its own assessment, concluding at [223] that the input would be 25,000 m<sup>3</sup> per annum.

[59] The Environment Court in reaching its conclusion expressly acknowledged the difficulty in reaching a decision on the point, given the rather vague and very different evidence by both experts. As noted earlier, this not uncommon difficulty in the Environment Court jurisdiction, where conclusions are often based on opinion rather than proven fact, is why the members of the Court are chosen for their particular expertise in the area. The conclusion the Environment Court reached was just the sort of conclusion that expert Courts and Tribunals have to come to. The Court could not just put the point to one side as too difficult. On this issue, there is nothing to indicate that its decision was unjustified on the evidence. There was a basis for it. No error of law has been shown.

# Amount of sand (22,700 m<sup>3</sup>) entering the Mangawhai-Pakiri embayment per annum from river streams and from cliff erosion

- [60] Under this heading I consider paragraph 2.1.7 of Friends of Pakiri's amended notice of appeal points.
- [61] This aspect of the Court's decision was also strongly criticised. Mr Davidson submitted that the evidence relied on was of insufficient scientific merit or probative value to justify its admission.
- [62] However, the Court considered the evidence of the relevant experts on the point in detail: at [175]-[198]. Dr Barnett gave his estimate of the sand input from rivers and streams and that evidence was accepted by the Environment Court, having made some allowances of its own to allow for sediment trapped in lakes and wetlands. It was carrying out the function it was intended to carry out, and cannot be criticised for doing so. There was no error of law.

#### The formation of rips

- [63] Under this heading I consider paragraphs 2.1.4 and 2.2.1(ii) of Friends of Pakiri's amended notice of appeal points.
- [64] Friends of Pakiri submitted that the Environment Court had failed to take into account relevant and probative evidence showing that the extraction of sand

contributed to the formation of rips in the near-shore coastal area. There was indeed a lot of evidence about rips and holes in the area, and indeed one drowning. The Court considered this evidence. It also considered evidence from Dr Dean that in other countries sand extraction from the near-shore is not permitted. He gave general evidence that dredging near "the bar" would tend to increase the likelihood of rip current formation.

[65] This evidence was not expressly dealt with by the Environment Court. However, it concluded that there was no "scientific evidence" before it to support a finding that extraction had caused changes in wave action and currents, thus implicitly rejecting Dr Dean's evidence. Elsewhere in the judgment Dr Dean's evidence had been strongly criticised. In the end the Court did not have precise evidence from any expert on how the sand extraction could cause safety problems. The Court observed that sand extraction had been taking place in the embayment for the last 80 years. Clearly changes in conditions noted by local residents over recent years could not as a matter of logic be taken as indicating that sand extraction was causing those changes. The Court's conclusion at [409] that there was no scientific basis for supposing that the extraction was causing holes or rips in-shore was a conclusion quite open to it. In the circumstances there was no error of law.

## **Economic efficiency**

- [66] Under this heading I consider paragraph 2.1.8 of Friends of Pakiri's amended notice of appeal points.
- [67] Friends of Pakiri asserted that the finding that the extraction of sand from the Mangawhai-Pakiri embayment was economically efficient because there was no other more efficient sources of sediment available for concrete production in the Auckland region was unsupported by the evidence.
- [68] Competing evidence on this point was presented by a Mr Copeland for McCallum Bros and Dr Sharp for Friends of Pakiri. The Environment Court explained over three paragraphs: [138]-[140], why it preferred the evidence of Mr Copeland. Dr Sharp was not an expert on the kinds of sand used for making

concrete for different purposes, and based his opinion on information from others. A reading of the cross-examination of Dr Sharp shows that there was a proper basis for the Environment Court to put his evidence to one side. Dr Sharp does not appear to have addressed the market for high quality sand used for the making of ready mix

concrete. Mr Copeland did do so.

[69] The issue is one involving the weighing of different opinions, and this Court should not enter into a debate on weight. There was clear evidence from

Mr Copeland, and the Environment Court was entitled to accept it.

Conclusion

[70] This has been an appeal where disagreement by the appellants with the factual conclusions of the Environment Court has been presented under the guise of errors of law. The conclusions of the Court showed that by a considerable margin, sand replenishment would compensate for the sand it was proposed to extract, and that it was not shown that past extraction had caused erosion. It has not been demonstrated that the Environment Court made a decision that was not based on evidence, or that the decision contained any clear factual error that could have led it to decline the appeal. It was open to the Environment Court to make all the findings

it made. It made no error of law.

Result

[71] The two appeals are dismissed.

Costs

[72] Costs are reserved. If there is a disagreement about costs, the respondents should file written submissions within 7 days, and the appellants within a further

7 days.

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Asher J