

STACKS // NORTHERN RIVERS

# REGISTER

DA05/0004

28 April 2006

The General Manager  
Tweed Shire Council  
MURWILLUMBAH. 2484.

~~Denise O'Brien~~

Property No: 38882

TWEED SHIRE COUNCIL	
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OUR REF MMD MN 050150  
YOUR REF

TURNOCK ST CHINDORAH  
LOT 1 DP 781714

Dear Denise

Re: TSC .ats. Gales Holdings Pty Ltd - DA for fill & haul road

We refer to your telephone conversation with Michelle of our office and now enclose\* a copy of the Judgment of Talbot J handed down today.

We note your instructions in relation to an application to the Court for a time frame in which the SIS is to be completed and if not so completed, then the Court to refuse the development applications because they are invalid. We will be in further contact with you in relation to this strategy.

Yours faithfully  
**STACKS // NORTHERN RIVERS**  
Mark Delany

Per: 

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Land and Environment Court  
of New South Wales

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**CITATION :** Gales Holdings Pty Limited v Tweed Shire Council [2006] NSWLEC 212

**PARTIES :** APPLICANT  
Gales Holdings Pty Limited

RESPONDENT  
Tweed Shire Council

**FILE NUMBER(S) :** 10264 of 2005

**CORAM:** Talbot J

**KEY ISSUES:** Development Application - Whether species impact statement required.

**LEGISLATION CITED:** Environmental Planning and Assessment Act 1979 s 4, s 5A, s 78A(8)(b)  
Threatened Species Conservation Act 1995 s 4, Pt 1 of Sch 2

**CASES CITED:** BT Goldsmith Planning Services Pty Limited v Blacktown City Council [2005] NSWLEC 210 ;  
Dames and Moore Pty Limited v Byron Council [2000] NSWLEC 46,  
Gales Holdings Pty Limited v Tweed Shire Council [2006] NSWLEC 85;  
Minister Administering the Environmental Planning and Assessment Act 1979 v Bautovich (2005) 142 LGERA 331;  
Timbarra Protection Coalition Inc v Ross Mining NL & Others (1999) 46 NSWLR 55

**DATES OF HEARING:** 13/07/2005, 14/07/05, 24/11/05 (site inspection), 25/11/05, 09/03/06, 10/03/06, 15/03/06 (written submissions), 22/03/06 (written submissions)

**DATE OF JUDGMENT:** 28/04/2006

**LEGAL REPRESENTATIVES:** APPLICANT  
Mr T F Robertson SC with Mr J Johnson (Barrister)  
SOLICITORS  
Woolf Associates

RESPONDENT  
Ms S A Duggan (Barrister)  
SOLICITORS  
Stacks/Northern Rivers

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**THE LAND AND  
ENVIRONMENT COURT  
OF NEW SOUTH WALES**

**Talbot J**

**28 April 2006**

**10264 of 2005 Gales Holdings Pty Limited v Tweed Shire  
Council**

**JUDGMENT**

- 1 Talbot J: By application class 1 filed 24 March 2005 Gales Holdings Pty Limited ("the applicant") has appealed against the deemed refusal of Development Application No. 05/0004 lodged with Tweed Shire Council ("the council") for filling and haul road development on land at West Kingscliff. The filling of the land is in preparation for future urban development and the haul road is proposed to transport fill material to the site.
- 2 The proposed fill site is located on the northern and southern side of Turnock Street, Kingscliff. The proposed haul road would extend from the Turnock Street/Elrond Drive roundabout in the east to Tweed Coast Road in the west.
- 3 In a related matter (No. 10263 of 2005) in respect of shopping centre and commercial development on land south of Turnock Street I determined that a species impact statement ("SIS") is required as the development is likely to have a significant effect on the Mitchell's Rainforest Snail. (see *Gales Holdings Pty Limited v Tweed Shire Council* [2006] NSWLEC 85).

- 4 In the present matter the Council raises a further amended preliminary point whether the development application should be accompanied by an SIS on the basis that the fill and haul road development is likely to have a significant impact on the Wallum Froglet *Crinia tinnula* and the Wallum Sedge Frog *Litoria olongburensis*. The Council further contends that accumulative impact of all of the development proposed will have a significant impact on the Wallum Froglet.
- 5 The hearing commenced in mid July 2005 and was subsequently adjourned to allow the applicant to amend the development application to include ameliorative measures. These measures include setting aside an area of Wallum Froglet habitat and enhancement of its breeding habitat.
- 6 The parties agreed that a Court Appointed Expert ("CAE") be appointed for the purposes of ascertaining whether the Wallum Sedge Frog is present on the land. A separate CAE was appointed to advise whether the Wallum Froglet or its tadpoles are able to use or are likely to use the drains or cross the road for the purpose of genetic interchange.
- 7 Ben Lewis has been appointed as the CAE in respect of the Wallum Sedge Frog. A number of concessions have been made by both parties. Relevantly the council conceded that if the CAE did not find the Wallum Sedge Frog on the subject land there would be no need to prepare an SIS in respect of impact on that species. In a report filed 29 August 2005 Mr Lewis stated that no Wallum Sedge Frogs were recorded. At the final hearing on 9 and 10 March 2006 the council informed the Court that the issue concerning the Wallum Sedge Frog had been resolved.
- 8 The impacts on the Wallum Froglet remain to be determined. Dr Edward Meyer is the CAE appointed to assist in relation to issues regarding the Wallum Froglet.

## The legislative framework

- 9 Section 78A(8) of the Environmental Planning and Assessment Act 1979 ("the EPA Act") relevantly provides:-

*(8) A development application must be accompanied by:*

*(a) ...*

*(b) if the application is in respect of development on land that is, or is a part of, critical habitat or is likely to significantly affect threatened species, populations or ecological communities, or their habitats—a species impact statement prepared in accordance with Division 2 of Part 6 of the Threatened Species Conservation Act 1995.*

- 10 The determination of whether there is likely to be a significant effect is a jurisdictional fact and a matter that the Court must determine itself (*Timbarra Protection Coalition Inc v Ross Mining NL & Others* (1999) 46 NSWLR 55)

- 11 Section 4 of the EPA provides that:-

*threatened species, populations and ecological communities and threatened species, population or ecological community have the same meaning as in the Threatened Species Conservation Act 1995 ...*

- 12 Section 4 of the Threatened Species Conservation Act 1995 ("the TSC Act") provides:-

*threatened species means a species specified in Part 1 or 4 of Schedule 1, Part 1 of Schedule 1A or Part 1 of Schedule 2.*

*threatened species, populations and ecological communities means species, populations and ecological communities specified in Schedules 1, 1A and 2 and threatened species, population or ecological community means a species, population or ecological community specified in any of those Schedules.*

- 13 The Wallum Froglet is listed in Part 1 of Schedule 2 of the TSC Act. Accordingly, the Wallum Froglet is a threatened species for the purposes of the TSC Act and the EPA Act.
- 14 Section 5A of the EPA Act lists certain factors that must be taken into account in deciding whether there is likely to be a significant effect on threatened species in the form of the eight part test. They are:-
- (a) in the case of a threatened species, whether the life cycle of the species is likely to be disrupted such that a viable local population of the species is likely to be placed at risk of extinction,*
  - (b) in the case of an endangered population, whether the life cycle of the species that constitutes the endangered population is likely to be disrupted such that the viability of the population is likely to be significantly compromised,*
  - (c) in relation to the regional distribution of the habitat of a threatened species, population or ecological community, whether a significant area of known habitat is to be modified or removed,*
  - (d) whether an area of known habitat is likely to become isolated from currently interconnecting or proximate areas of habitat for a threatened species, population or ecological community,*
  - (e) whether critical habitat will be affected,*
  - (f) whether a threatened species, population or ecological community, or their habitats, are adequately represented in conservation reserves (or other similar protected areas) in the region,*
  - (g) whether the development or activity proposed is of a class of development or activity that is recognised as a threatening process,*
  - (h) whether any threatened species, population or ecological community is at the limit of its known distribution.*
- 15 Section 5A of the EPA Act was amended by the Threatened Species Conservation Amendment Act 2002 on 31 October 2005, after the date of the amended development application. Therefore the provisions of s 5A as

in force prior to the recent amendments are applicable to the consideration of the eight part test in the circumstances of this case. I have proceeded on that basis

### The expert evidence

- 16 Four experts including Dr Mahony and Dr Smith, retained by the applicant, and Dr White and Mr Parker, retained by the council, have produced a joint report. They agree on the following:-
- Wallum Froglets occur both north and south of Turnock Street on both sites.
  - Wallum Froglet habitat occurs north and south of Turnock Street.
  - If Turnock Street and Elrond Drive is a barrier, the proposal to fill north of Turnock Street will have a significant impact on the Wallum Froglet population north of Turnock Street. If the road is not a barrier, the proposal to fill north of Turnock Street will have not have a significant impact on the population of the Wallum Froglet.
  - There is a viable population of Wallum Froglets to the north and south of Turnock Street.
  - The filling proposed will result in the loss of all Wallum Froglet habitat north of Turnock Street.
  - The supermarket infrastructure proposal will result in the loss of some Wallum Froglet habitat south of Turnock Street.
  - If the Wallum Froglets north of Turnock Street are not a separate population to those south of Turnock Street, an SIS is not required for the proposal.
  - The shopping centre proposal when considered on its own will not have a significant impact on the Wallum Froglet.
- 17 My understanding of the agreed positions, at least in so far as the council's experts are concerned, is that although there are viable populations of the Froglet either side of the road there is not likely to be a significant effect on

the total population if there has been an ongoing capacity for genetic interchange between Froglets north and south of the road notwithstanding the barrier provided by the road structure.

- 18 The experts disagree as to whether the Tumock Road and Elrond Drive embankment/road is a barrier to movement of the Wallum Froglets. Accordingly, Dr Meyer has been appointed as a CAE to "ascertain whether the Wallum Froglet or its tadpoles are able to use or are likely to use in the context of genetic interchange any of the drains under any of the roads on the land or cross any of the roads surrounding land for the purposes of movement between those portions of land on the northern side of Tumock Street, the southern side of Tumock Street and the western side of Elrond Drive." The parties have made a number of concessions.

- 19 Relevantly the applicant concedes that:-

*If the Court appointed expert ascertains that the Wallum Froglet or its tadpoles will not use or is not likely to use in the context of genetic interchange either the roads or drains to move between Lots 11, 12, 13 North of Tumock Street and South of Tumock Street or under or across Elrond Drive the applicant shall prepare an SIS.*

- 20 The Council concedes that:-

*If Court appointed expert ascertains that the Wallum Froglet or its tadpoles is able to use or is likely to use in the context of genetic interchange either the roads or drains to move between Lots 11, 12, 13 North of Tumock Street and South of Tumock Street or under or across Elrond Drive then there is not likely to be a significant effect on the Wallum Froglet species and there is no need to prepare an SIS because of any impact on the Wallum Froglet.*

#### **The evidence of the Court Appointed Expert Dr Meyer**

- 21 Dr Meyer produced a report dated 31 October 2005. In the report he expresses the following summary and conclusions:-



- Wallum Froglet tadpoles could pass through stormwater pipes south under Turnock Street and west under Elrond Drive, though only very rarely
  - While Wallum Froglets could traverse pipes under Turnock Street and Elrond Drive, there is little likelihood of Wallum Froglets doing so.
  - Wallum Froglets could cross over both Turnock Street and Elrond Drive. This would be most likely to occur during heavy flooding. The successful crossing of Wallum Froglets across this roadway successfully would still be a rare occurrence.
  - It is considered unlikely that movement of tadpoles or Wallum Froglets through stormwater pipes would contribute significantly to gene flow across the Turnock Street roadway.
- 22 On 25 November 2005 the parties were directed to prepare an agreed document to be included in a further brief to Dr Meyer. This document contained additional information relating to traffic counts, a flood study and slashing of the land.
- 23 In a further report dated 28 November 2005 Dr Meyer, after taking into account the additional material, concludes that:-
- Between the hours of 23:00 and 06:00 Wallum Froglets crossing the roadway would stand a reasonable chance of doing so successfully.
  - Movement of Wallum Froglets and tadpoles across Turnock Street/Elrond Drive would occur during a 1:100 year flood event. (Modelling predicts that water could potentially run over the Turnock Street/Elrond Drive roadway).
  - Slashing of vegetation on the Turnock Street/Elrond Drive roadway embankment would facilitate the movement of Wallum Froglets up and onto the road during wet periods. However it is expected rapid

regrowth of vegetation means conducive conditions may last only a matter of weeks or months.

- Slashing could cause mortality of Froglets on embankments although the Froglets are not usually found on embankments unless there is heavy flooding. Unless slashing occurs during flood events mortality of Wallum Froglets with slashing is likely to be low.
- It is possible for gene flow to occur across Turnock Street/Elrond Drive roadway via the movement of Wallum Froglets during very wet periods. While occurring infrequently, it is conceivable that movement of Wallum Froglets across Turnock Street could maintain population genetic structure north and south of the Turnock Street/Elrond Drive embankment. To be sure that gene flow is occurring with sufficient regularity detailed research would need to be carried out at the site. Without this research one cannot say with certainty whether gene flow is or is not occurring with sufficient regularity.

24 On 5 December 2005 the Court granted leave for the parties to cross examine Dr Meyer. On 9 March 2006 Dr Meyer was cross examined by Ms Duggan for the Council and Mr Robertson SC for the applicant

25 Dr Meyer was cross examined in respect of the likelihood that the Wallum Froglets would move between the two locations as either tadpoles or frogs for the purpose of genetic interchange. He recognises that there is a chance the Froglets could move across the roadway successfully However that would be dependent upon a number of factors including the contemporaneous occurrence of wet nights and slashed banks. He cannot say with certainty that there is a real chance or possibility that there would be sufficient instances of Froglets crossing the roadway to produce the necessary genetic interchange, both ways, to produce a single population.

- 26 When asked in cross examination by Ms Duggan whether there is a likelihood of the movement of tadpoles across the road such that they could perform the function of genetic interchange he could not answer the question "*definitely yes or not.*" Likewise when asked questions in relation to the movement of Froglets he addressed the test in terms of certainty.
- 27 Mr Robertson submits that Dr Meyer has used varying standards in determining whether the Froglet is able or likely to cross the road for the purpose of genetic interchange. Dr Meyer agreed with Ms Duggan that where he had used the term "likely" he meant more than a mere possibility, or a real chance. However according to Mr Robertson that was not the test he applied. Dr Meyer adopted the test of certainty and accordingly addressed the wrong test. Ms Duggan submits however that Dr Meyer did address the question on the basis of likelihood. It became clear in the course of his oral evidence that Dr Meyer was not prepared to discount the possibility of gene flow across the road barrier, but, was not prepared to say it could definitely happen.
- 28 However Dr Meyer also said that there is little prospect of different genetic populations on either side of the road given the relatively short time the roads have been in place. It is his evidence that if the barriers remained in place for many thousands of years then that may lead to significant genetic differences. In his opinion, even if it is accepted that there are two distinct populations it is unlikely that there would be a great deal of difference in terms of the genetic structure between the two populations. Nevertheless that does not mean that they cannot be separate local populations.
- 29 The advice from Dr Meyer is equivocal, inconclusive and arguably addresses the wrong question, in part. His inability to provide a definitive response to the question posed at [18] effectively discharges the concessions made by the parties at [19] and [20]. Notwithstanding his uncertainty, Dr Meyer's evidence is nevertheless helpful in determining

whether there is likely to be a significant effect on the existing Wallum Froglet local population.

### Submissions

- 30 Ms Duggan submits in order for the Court to find that an SIS is not required the Court would need to be satisfied that the Wallum Froglet on the north of the site is a part of a single larger population. For this to occur it must be established that there is movement in the context of genetic interchange between the two groups. Furthermore the movement must be more than a remote possibility, that is, it must be likely to have occurred. It is the council's position that there is little or no likelihood of the events (including slashing, flooding, crossing without being maimed and then successfully reproducing) occurring simultaneously. According to the council the likelihood of genetic interchange is too remote and there is insufficient evidence to support a finding that the Froglets on the subject site are part of a larger population. The degree of uncertainty therefore triggers the application of the precautionary principle.
- 31 The precautionary principle was discussed by me in *Gales Holdings Pty Limited v Tweed Shire Council* [2006] NSWLEC 85 at [56] to [61]. In summary the precautionary principle provides that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
- 32 On the other hand Mr Robertson submits that as Dr Meyer is satisfied that it would be possible for gene flow to occur across the roadway via the movement of Froglets during wet periods the council's concession is activated. He says this is consistent with the approach taken by the applicant's experts that the Froglets are part of one large interconnected population. In the alternative, if the Court finds that Dr Meyer did not answer the questions posed to him because he could not decide with

sufficient certainty then the Court should discharge the orders made by consent and determine the matter itself. The Council opposes this course. Mr Robertson submits that Dr Meyer was asked whether the Froglets are able to or likely to cross the road, not whether there is scientific uncertainty about the issue.

- 33 It is appropriate that the Court decide the matter for itself based on the evidence irrespective of any agreement or concession (see *Minister Administering the Environmental Planning and Assessment Act 1979 v Bautovich* (2005) 142 LGERA 331).

### Findings

- 34 A factor in determining whether an SIS is required is the assessment of whether the population of the Froglet species north and south of Turnock Street and west of Elrond Drive is the same or is likely to be regarded as genetically different. The parties have concentrated on the element of movement between populations to ensure genetic interchange. The opinion of Dr Meyer is that it is unlikely there would be a great deal of difference in terms of genetic structure occurring in the time the road has been in place, irrespective of the effect of the road as a barrier. I am not convinced that proof of genetic interchange is a determining factor for the acceptance of the fact that there is only one population
- 35 Accordingly it may be said that the consequence is effectively the same irrespective of whether the evidence establishes a real possibility or chance of movement across, through or under the roadway. Consistency of the genetic population at this stage is not, according to Dr Meyer, the product of or dependent upon the contemplated genetic exchange. Subject to what I have said at [17] the experts agree that the populations north and south of Turnock Street are viable.

- 36 The question that the Court is required to determine is whether there is likely to be a significant effect on the Wallum Froglet or its habitat (in the context of the species, populations and ecological communities specified in Schedules 1, 1A and 2 of the TSC Act.) The Wallum Froglet appears in the list of vulnerable species in Schedule 2. No population of Wallum Froglets is listed in the TSC Act. For the purposes of s 5A(a) of the EPA Act, in determining whether there is likely to be a significant effect, I need to be satisfied that the frogs are part of a viable local population that is likely to be placed at risk of extinction. Mr Robertson submits that no scientific reason has been advanced according any particular significance to the loss of the Froglets north of Turnock Street, save for their loss as part of the population in the immediate locality.
- 37 The prospect of a change in the genetic structure of the populations north or south of the road is not a relevant factor if the total population is acknowledged to be a single community with no genetic differences. The circumstances have to be considered in the context of the total destruction of the habitat of the Froglet in the area north of Turnock Street and east of Elrond Drive and partly south of Turnock Street. The National Parks and Wildlife Service (NPWS) describe a local population as one *"that occurs within the study area, unless the existence of contiguous or proximal occupied habitat and the movement of individuals or exchange of genetic material across the boundary of the study area can be demonstrated."* The council's witness, Mr Parker, relies on this definition of a "local population" to support the broader argument that a separate population on land north of Turnock Street will become extinct and hence likely to be significantly affected. It is self evident that the particular elevated roadway forming Turnock Street and Elrond Drive effectively divides the occupied habitats either side of the roads to a degree inconsistent with a description of contiguous or proximal habitat. The extent of any movement between the population north of the road and populations elsewhere is likely to be minimal. Accordingly one study area would be those parts of the sites where fill development is proposed

- 38 Dr Mahony contends that genetic tests on the Froglet indicate the species shares genes across significant geographic barriers and there is genetic evidence of uniformity among populations over a large north to south cross section of its natural distribution. This supports the proposition that the animals are able to disperse despite major barriers, for example provided by major rivers. Dr Smith essentially concurs with Dr Meyer that irrespective of the dispersal ability of the Wallum Froglet it would be inappropriate to consider the population north of Turnock Street to be a separate local population on the basis there has been insufficient time for the two populations to develop.
- 39 On the balance of probabilities the evidence establishes that genetic uniformity can occur notwithstanding physical barriers. Nevertheless it is not unreasonable to conclude and I find that the Froglets north and south of the road comprise two separate and viable local populations, irrespective of genetic composition. They are not interdependent in the sense that one cannot survive without the other. Neither is dependant on the other to remain viable. They occupy a separate or distinct geographical area defined in part by the roads. There is no dispute that the habitat north of Turnock Street will be destroyed and that accordingly there will be no prospect of the survival of the individual Wallum Froglets occupying that area.
- 40 The council argues that the two development applications would lead to an accumulative impact on the Wallum Froglet. According to Mr Parker, the impacts are:
- Loss of habitat on land south of Turnock Street due to proposed filling,
  - Removal of all habitat on land north of Turnock Street due to proposed filling;
  - Combined clearing (in respect of both applications) of vegetation occupied by the Froglet;

- Loss of Froglet habitat due to remediation works in the shopping centre application.

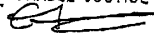
- 41 The council submits that the accumulative impacts arise regardless of whether the Froglets are part of a single population or are found to be two separate populations and that the impacts of the two applications should be considered simultaneously. Ms Duggan relies on the decision of Bignold J in *Dames and Moore Pty Limited v Byron Council* [2000] NSWLEC 46. His Honour said at [46] that it is legitimate to include any cumulative impact of other likely developments in the assessment of environmental impact.
- 42 In *BT Goldsmith Planning Services Pty Limited v Blacktown City Council* [2005] NSWLEC 210 Pain J considered that the broad discretion under s 78A(8)(b) of the EPA Act, in light of the objects under the TSC Act, (which Her Honour considered to be a relevant part of the legislative scheme concerning species impact statements) meant that a cumulative impact is a relevant matter.
- 43 According to Mr Robertson the Court should accord little or no weight to any purported cumulative impact in this case because the prospects for the grant of consent in relation to the shopping centre site are at this stage speculative. It is difficult to adopt this submission in the light of the approach taken in *Dames and Moore* and *BT Goldsmith*.
- 44 Ultimately the issue of cumulative impact is not a decisive one. I propose to regard the population of Wallum Froglet north of Turnock Street as a viable local population of the species within the meaning of s 5A(a) of the EPA Act. The study area is divided into two distinct local populations both of which are to be regarded as viable for the reasons explained above. Taking account of the threatened extinction of all the Froglets north of Turnock Street I am of the opinion that the development on that land is



likely to significantly affect a viable local population of the vulnerable threatened species the Wallum Froglet.

- 45 A positive finding in respect of one or more of the factors in s 5A does not necessarily lead to the conclusion that an SIS must accompany the development application in accordance with s 78A(8)(b) of the EPA Act. However the total extinction of the local population as contemplated in this case is considered to be sufficiently dramatic and potentially serious to demand that a full and proper study be undertaken so that the process of the consideration of the development application is fully and adequately informed in respect of that issue.
- 46 Erring on the side of caution and applying the precautionary principle by having regard to the extent of uncertainty raised by the conflicting evidence of the experts and opposing submissions made on behalf of the parties, I find that it is appropriate for these matters to be more fully investigated by the means of an SIS.
- 47 I determine in accordance with s 78A(8)(b) of the EPA Act that an SIS is required to examine the impact on the Wallum Froglet arising from the proposed fill and haul road development.

14 CERTIFY THAT THIS AND  
 THE PRECEDING PAGES ARE  
 A TRUE COPY OF THE REASONS FOR  
 JUDGMENT HEREIN  
 OF THE HONOURABLE JUSTICE  
 R. N. TALBOT



Date 28-4-06 Associate