EVIDENCE OF PAUL GREGORY McGAHAN
IN THE MATTER OF THE OBJECTION BY THE CANTERBURY REGIONAL COUNCIL
TO THE PROPOSED SCHEME CHANGE NO.32 OF THE CHRISTCHURCH CITY DISTRICT PLANNING SCHEME

Professional Background

My name is Paul Gregory McGahan. I hold a Diploma in Parks and Recreation Management from Lincoln College. I am a consultant specialising in the field of conservation tourism. This includes recreation planning and management. My past 18 years of work experience has involved being a Senior Conservation Officer (Recreation, Tourism and Historic Resources) with the Department of Conservation, a National Parks and Reserves Ranger for the former Department of Lands and Survey, and a Forest Trainee with the former New Zealand Forest Service. In all of these capacities I have had a close involvement with outdoor recreation and recreational planning matters. This has included practical field implementation of recreational facilities, recreational planning and policy development and recreation strategy development, including the use of the Recreational Opportunity Spectrum (ROS) approach to planning and management.

Introduction

This evidence is being read by Laurie McCallum in my absence due to a commitment I have overseas at the time of this hearing.

This evidence relates to the proposed District Scheme Change No.32 to the City Plan - Taylors Mistake Recreational Holiday Zone and Recreation Zones. The scheme change relates to the proposal to provide for a small "Residential Holiday" zone of approximately 1.2 hectares, back from the foreshore and for a proposal to alter the recreation zones at Taylors Mistake. This evidence relates to the proposed subdivision, its likely impacts upon recreation and potential recreation opportunities at Taylors Mistake. I am familiar with Taylors Mistake, having visited on a number of occasions to participate in recreational activities. My evidence contends that if the proposed subdivision at Taylors Mistake proceeds, the present high recreational values which the area possesses would be diminished, and the potential recreational values would be inhibited. My assessment of the likely or potential impacts is based on my knowledge of and experience in recreation, and also by taking account of the planning and management approach to recreation, known as the Recreation Opportunity Spectrum (ROS). This approach is widely used and accepted in recreational management and assessment of public lands within New Zealand, having been adapted from the ROS system developed in the United States of America.

Before discussing the probable impacts of the proposed subdivision, I will outline the broad principles of the ROS planning system and identify the recreational or potential recreational activities at Taylors Mistake.

The Recreational Opportunity Spectrum (ROS)

ROS is a systematic planning technique that is used for integrating recreation with other land uses. It is a process commonly used by resource managers to define, assess or provide recreational opportunities. A recreation opportunity is defined as:

> "a chance for a person to participate in a specific recreation activity in a specific setting in order to realise a predictable recreation experience."
>
> (Stankey & wood, The Recreation Opportunity Spectrum: An Opportunity in Selected Readings for ROS Workshop, Rotorua, Hanmer Springs, 1982.

Recreation opportunities comprise three key components - the activity, the setting and the psychological experience. In applying this process, recreational opportunities are arranged along a spectrum. The ROS portrays combinations of activities, settings and probable experience opportunities. The spectrum is divided into classes, distinguished by varying conditions ranging from highly developed to undeveloped, for example, urban to wilderness.

The ROS is a flexible planning framework that assists resource managers and planners to test assumptions and objectives. It is not a decision-making process, but does provide insight into the possible consequences of various options. ROS is a planning tool through which the provision of information about available and potential recreation opportunities can be made.

The Recreational or Potential Recreational Opportunities at Taylors Mistake

These opportunities are based on (1) recreational or potential recreational activities, and (2) the recreational setting, which in combination provide (3) the recreational experience.

(1) <u>Recreational or Potential Recreational Activities</u>

The main activities that currently take place at Taylors Mistake include swimming, surfing, windsurfing (occasional), surf-ski riding, canoeing, sunbathing, walking, jogging, exercising dogs, game playing picnicking, family oriented activities, birdwatching, sightseeing, photography, painting or sketching, kite-flying and parapenting.

Potential recreational activities (some of these are likely to have occurred) which it would be possible to encourage by provision of more public recreational space could include increased parapenting, orienteering and interpretive learning or educational opportunities. For example, the catchment has potential to provide for an education programme for students which could contain a recreational element.

(2) The Recreational Setting

Taylors Mistake is a small, relatively sheltered beach located between rocky coastal cliffs. To the rear of the beach is a gently sloping small valley, surrounded by brown tussock and grass covered hills with occasional rock outcrops. The coastal setting of this bay is very pleasant, with an open, rural and natural aspect to it, even though it is modified by a line of baches located within the valley floor, a surf club, toilets and carpark on the beach area, roading access and a housing subdivision to the northeast. Taylors Mistake still has a distinctive character and charm despite these modifications. These elements combined provide the recreational setting. Within this setting a diverse range and considerable number of recreational activities take place, predominantly occurring in the zone from the beach to approximately 400 metres back from the beach.

(3) The Recreation Experience

The activity and the setting combine to create a recreational experience, therefore the setting is very important in considering the probable impacts of the proposed subdivision at Taylors Mistake. If the recreational setting is changed then the recreation experience will also be altered. Therefore a recreationist undertaking the same activity in the same location but with a changed recreational setting may have a markedly different experience than on previous occasions.

Another important consideration in determining recreational opportunities at Taylors Mistake is its significance regionally. There are two key factors that add to the recreational value of Taylors Mistake regionally. They are its unique character and its accessibility.

It is quite unlike other beaches in close proximity, for example Sumner and New Brighton, which are highly modified beaches in an urban setting. It does in fact, more closely resemble the beaches and bays of Banks Peninsula.

Taylors Mistake is significant in that it is a beach type of which none other is found in such close proximity to a major metropolitan area. It is located only 15 km from central Christchurch and is as a result easily accessible, being only some 15 to 20 minutes away in driving distance.

The Probable Impact of the Proposed Taylors Mistake Subdivision on Recreation or Potential Recreation Opportunities

It is proposed to provide a small "Residential Holiday" zone of up to 40 units on 1.2 hectares of land. The proposed Change 32 states that it is accepted that there is a need for holiday accommodation to enable the recreational opportunities of the area to be fully utilised.

I believe that the proposed subdivision would limit the recreation or potential recreation opportunities and would adversely affect some recreation experiences. This adverse effect would occur as a consequence of the creation of a major visual feature in the landscape, which would be detrimental to the recreational setting and would have a negative effect on the recreational experience. Further, by establishing a Residential Holiday Zone, the impression would be created of a semi-urban development, which would be in sharp contrast to the existing natural and rural character of Taylors Mistake.

The visual impact of the subdivision and the alteration of the existing character of Taylors Mistake through the proposed subdivision would have the following probable effects on recreation opportunities and experiences. The holiday zone would be visually noticeable from many points within the Taylors Mistake catchment, even though there may be restrictions to the colour, design and height of buildings, and the requirement to screen plant. These restrictions would do little to reduce the visual impact of up to 40 clustered buildings in a setting with rural characteristics. The subdivision in the intended location would appear not to follow natural lines within the landscape, neither would the screen plantings blend successfully with a predominantly brownish landscape with a vegetation cover of grasses and tussocks.

The subdivision would be noticeable from many parts of the catchment, including the hill slopes, Summit Road where it traverses the head of the catchment, the car park and Recreation Reserve, the foredunes and from the road leading into Taylors Mistake from at least the tight bend in the road down to the car park, a distance of approximately 200 metres. Because the recreation experience at Taylors Mistake is so dependent upon the semi-rural and natural qualities of the setting, the proposed subdivision will have an adverse impact on the recreational opportunities.

The probable impacts in the immediate vicinity of the proposed subdivision would be as follows. Particular recreational activities such as sunbathing, picnicking, ball-game activities and family oriented activities predominantly take place in the beach, foredune and grassed areas of the lower part of the valley. These activities are at times likely to take place in close proximity to where the subdivision is planned. The subdivision is likely to create a sense of private land immediately adjacent to these highly utilised recreational areas. This could restrict

some recreationists' activities through their concern for privacy in undertaking such activities. This would affect the quality of their experience.

I have discussed probable impacts of the proposed subdivision on recreation. This is further supported by previous investigation and study work undertaken in the area.

The Christchurch City Council Reserves Investigation (Department of Lands and Survey, 1986, Section 10, p.95, Taylors Mistake) rates the area as having regional significance (regional significance is defined in this report as: "where a significant amount of use is or will be from outside the city boundaries or immediate locality").

In 1985 the Canterbury United Council completed a Port Hills Recreation Study (Report Nos. 378, 379, 380, dated 1986). This study used the ROS process to evaluate recreation opportunities and potential opportunities. In applying ROS to the Port Hills, five classes were identified. These were defined as follows:

RO 1	Urban
RO 2	Modified
RO 3	Developed Natural (roaded)
RO 4	Developed Natural (non-roaded)
RO 5	Natural (non-roaded)

The Taylors Mistake area was classified RO 3, i.e. Developed Natural (roaded). In applying this classification against tolerance for non-recreational uses across the recreation opportunity spectrum, it concluded that incompatible non-recreational uses in an RO 3 classified area included Houses and Buildings (refer PHRS Vol.II, Table 5.6, p.72). This would suggest that a subdivision as proposed would detract from or inhibit the realisation of recreational opportunities at Taylors Mistake.

Summary

In summary I would conclude that there would be probable impacts on recreational or potential recreational opportunities if the subdivision proceeds. Taylors Mistake is regionally significant from a recreational viewpoint because of its distinctive character and recreational setting, not found elsewhere within the Christchurch City Council boundaries. the natural (although modified) and semi-rural landscape of Taylors Mistake creates a character that would be adversely affected if the subdivision proceeded. The recreational setting is dependent upon this landscape and character. If this setting is altered some recreational opportunities will be limited.

In recreational terms, my final conclusion is that the proposed scheme change would probably limit recreational opportunities rather than enable the full realisation of those opportunities as is suggested in the scheme change proposal. The recreational setting would undoubtedly be altered to the detriment of the full realisation of recreational opportunities. The benefits that would accrue to a relatively small number of residential holiday home owners do not outweigh the limitations to the wider public's opportunities for recreation that would result if the proposal proceeds.

IN THE MATTER OF the Town and Country Planning Act 1977

AND

IN THE MATTER OF Christchurch City District Scheme Change No.32 - Residential Holiday Zone at Taylors Mistake.

My full name is Richard Gerald Holmes and I am employed by the Canterbury Regional Council as a Land Consents Monitoring Officer. My qualifications are in Civil Engineering.

Part of my duties involves commenting to Local Authorities on the water and soil implications of planning applications, subdivisions and District Scheme changes and reviews. In the case of the Port Hills these comments generally relate to soil stability, stormwater control and an assessment of suitability for urban development based on soil stability, flooding and erosion.

1. Background

My involvement in this Scheme Change began in September 1988 when the North Canterbury Catchment Board was asked to comment on the suitability of the valley behind Taylors Mistake for a residential holiday zone.

Using information contained in "Soils and Erosion of the Sumner Region of the Port Hills, Canterbury, New Zealand" (Trangmar and Cutler, N.Z. Soil Survey Report 70, 1983), mapping of the area carried out by the North Canterbury Catchment Board in 1976, and site inspections made by myself; comments on soil types, land stability and flood risk were made to the Christchurch City Council in October 1988. For information purposes and because there is debate over where in the valley development (if any) should be located, the North Canterbury Catchment Board's earlier comments on land stability in the Taylors Mistake valley are reviewed.

2. Land Stability

There are three distinct soil types and relative soil stability zones within the area which the North Canterbury Catchment Board was asked to comment on. The soils are described in N.Z. Soil Survey Report 70 (Trangmar and Cutler) as:

(1) Horotane Silt Loam (Ho 1)

This covers the soil of the valley floor and is formed from alluvium derived from loess and volcanic material eroded from the surrounding hills. The presence of rushes indicates that there is poor drainage and during times of heavy rainfall, flooding occurs.

Although the risk of land slip is negligible, this area, because of a flooding and silt deposition risk has been shown as slight risk on the Regional Council's relative soil stability scale and shaded green on the aerial photograph.

There is no defined drainage channel through the valley and if the area was developed for residential purposes a drainage and stormwater network large enough to take runoff from the valley would need to be provided. Building levels would have to be such that buildings were not affected by conditions such as a poor drainage outlet to the sea or by stormwater discharges down the valley or from the sides of the valley.

There is an area of former sand dunes known as Taylors Mistake sand (TMk.) located between the active dunes and the alluvial soils of the valley floor. This area is zoned for recreation and is outside the area initially under consideration for residential development.

(2) Heathcote Silt Loam (H 1)

This area consists of the fans formed by the accumulation of loess colluvium that has been eroded from the valley sides. This erosion, which has been principally by sheet wash and tunnel gully erosion, is still actively occurring.

Those areas which are shaded orange on the aerial photograph vary in slope from 8^{O} to 12^{O} and have been classified as moderate risk. They are subject to overflow from gullies from which they were created and also slight sheet wash erosion. If they were to be developed, stormwater discharges off the valley sides would have to be controlled. This would mean insuring that a sufficient part of the fan was set aside for the conveyance of stormwater and silt. A silt trap would be necessary where runoff across these fans meets the valley floor and silt is also likely to accumulate where the valley sides meet the fan.

There is also a risk of rockfall in parts of this zone. The most affected area appearing to be the eastern end of the fan on the south side of the valley behind the existing dwellings.

(3) Scarborough Hill Series (SH)

The soils of the lower part of the valley sides consist of Scarborough Hill soils being loess colluvium with up to 10% volcanic rock payments on slopes between 19 and 30^{O}. These soils are subject to tunnel-gully erosion and mass movement with the north-west facing slopes on the southern side of the valley showing signs of extensive tunnel gully erosion. The Scarborough Hill soils on the northwest side of the valley are mapped as Scarborough Hill soils, bouldery phase (SHb)

and contain 5% to 10% boulders up to 0.5m diameter. Debris flow and soil creep occur locally on shady aspects and there is a danger of rock-fall from outcrops upslope.

The Scarborough Hill series soils shown as shaded red on the aerial photograph are classified as severe risk on the Regional Council's Relative Soil Stability scale and are considered unsuitable for urban development because of erosion risk.

In summary, it is considered that parts of the moderate risk area consisting of the fans of Heathcote soils could be developed, but stormwater off the side slopes would need to be controlled and an adequate area set aside for the passage of stormwater. This should include making provision for a buffer strip between the Scarborough Hill soils of the side slopes and the fans or valley floor. From a land stability perspective the valley floor is the most suitable area for development, however, stormwater control works and possibly filling to avoid flooding would be required.

3. Objection relating to Proposed Zone

The objection lodged by the North Canterbury Catchment Board seeks

(a) that the policies and ordinances of the Residential Holiday Zone clearly indicate the basis on which the zone will be serviced for sewage and stormwater disposal, and

(b) that the zone boundaries are modified in order to recognise the limitations placed on development of the area by the severely tunnel-gullied hillside behind the proposed zone and an eroding gully at the northwest end of the zone (Figure I).

(a) Servicing

To ensure that development of the zone does not create water and soil related problems it should be made quite clear that all effluent disposal in the zone is to be to the Christchurch City Council sewer system and that stormwater disposal is to an approved outfall under the Water and Soil Conservation Act 1967.

The following changes are sought by the Regional Council:

(i) Add the following to Clause 15:
"All buildings containing uses requiring effluent disposal are to be connected to the CDB sewer system and all stormwater disposed of to an approved outfall under the Water and soil Conservation Act 1967."

(ii) Add the following as Clause 22A.2 A(viii) and C (iv)
"Services
All sewage effluent shall be disposed of by means of a connection to the CDB sewer system and all stormwater to an approved outfall under the Water and soil Conservation Act 1967."

(b) Zone Boundaries

The zone boundary as shown on aerial photographs held by the Christchurch City Council and depicting the area subject to Scheme Change 32, clearly show the zone boundary extending on to the Scarborough Hill soils of the valley sides. In addition the northwest end of the zone extends into an eroding gully which carries water from a hillside catchment. Changes to the zone boundary sought by the Regional Council (previously by North Canterbury Catchment Board) are:

(i) That the boundary be modified to be at least 10 metres from the top of the bank of the eroding watercourse at the northwest end of the proposed zone and that the boundary along the toe of the hill be kept clear of the hillslope. A zone boundary along the existing farm track as shown on Figure II is considered suitable.

(ii) That an area be provided for stormwater control works by requiring an 8 metre building setback along the zone's boundary with the hillslope.

During times of heavy rainfall there will be run-off containing a high silt loading from the hillslope. This is a naturally occurring process and is how the fan which it is proposed to develop has been formed. A cut off drain will be required to intercept this run-off and take it to a suitable outfall. The change in grade from the hillslope to a stormwater drain will result in silt accumulating in the drain and room will be required for not only the cut-off drain but also for machine access for maintenance purposes. Access should be sufficiently wide for both a digger and trucks to operate. This strip will also serve as a buffer strip in the event of mass movement or slipping on the hillside above and in the case of rockfall. Allowing for a drain with a 1 metre wide bed and 1 metre each side for batters located 1 metre from the toe of the hill, leaves only 4 metres for access. This would be the minimum working space for a small to medium-sized digger. Because of the high potential for damage should overflows occur and the need for a high standard of maintenance, the recommended setback of 8 metres is not considered excessive when all of the above factors are considered.

There is a wetter area in the centre of the proposed zone where the two main drainage gullies cross the fan. This area is shown on the attached Figure I, and should the development proceed then special attention may have to be given to the development of this area in order to avoid problems associated with poor drainage.

4. Cross-Objection by Taylors Mistake Association Land Company Limited

This cross-objection opposes the 8 metre building setback recommended by the Canterbury Regional Council (NCCB) and suggests that the 4.5 metre setback provision of the scheme ordinances is sufficient. The Regional Council reiterates its view that to provide an adequate area for stormwater and silt control works a strip of land a minimum of 8 metres wide is required and that provision for such works should be made by imposing a building line as part of the scheme change ordinances.

The cross-objection also states that the scale of the map included in Scheme Change 32 does not allow exact definition of the boundary on the ground and that the intention was to include the formed track but not the erodible hillside above. My interpretation of aerial photographs held by the Christchurch City Council is that the zone, as defined for the Scheme Change, does extend onto the hillside. The Regional Council is pleased to hear that there is no intention that the zone extend onto the hillside and makes the comment that the area should be surveyed and clearly mapped so the boundaries can be defined on the ground and are clearly in such a position that the zone does not encroach onto the hillside.

5. Cross-Objection to Objection No.8 - O. & M.J. Snoep

The objection by O. & M.J. Snoep does not clearly define an alternative site for the proposed zone. The Regional Council is opposed to development of the valley sides for soil stability reasons. If the development is to be located on the northern side of the valley, then it should not encroach on to the valley sides and a buffer strip a minimum of 8 metres in width, to provide space for stormwater and silt control works, should be provided behind any residential development. The area of fan on this side of the valley is more limited and although the risk of tunnel gullying of the adjacent hillside is less there is a greater risk of mass movement of the hillside because of its shady aspect. On soil stability grounds, where development is to be immediately at the toe of the hillslope, the proposed site on the southern side of the valley is preferable to a site on the northern side of the valley. As mentioned earlier, for development on the valley floor, consideration will need to be given to floor levels to ensure that there is no flood risk to buildings.

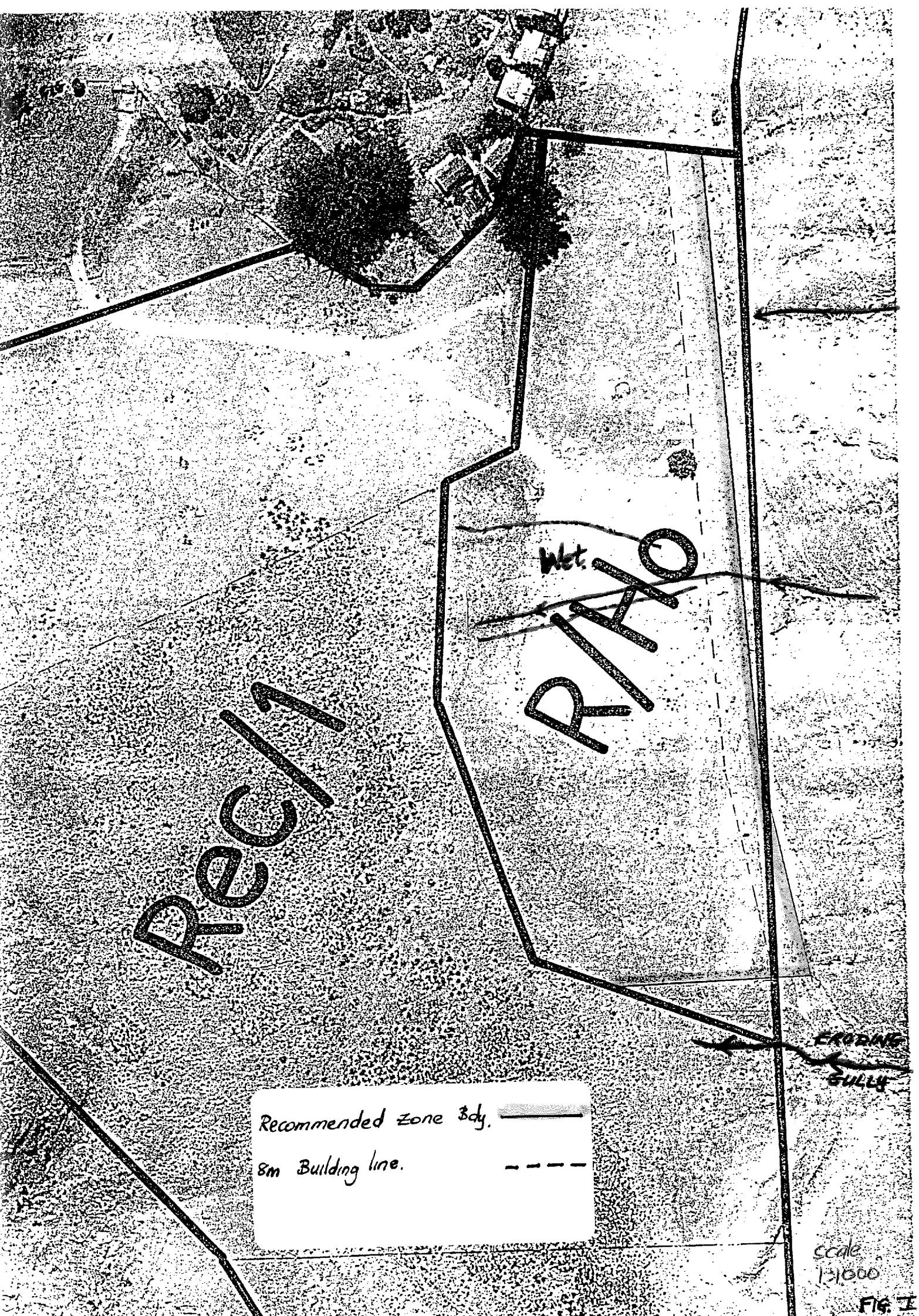
RC 1
RTA
Wet.
ERODING
GULLY
Recommended zone 3dy.
8m Building line.
scale
1:1000

FIG. I