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# *Recreation Opportunities Spectrum*

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Countryside Recreation Network

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# CRN Research Note:

## *Recreation Opportunities Spectrum*

*This paper is from CRN's Countryside Recreation Conference 1995 workshop notes by Colette Mascall and Tony Philpin and represents the draft of a U.K. methodology for the application of the Recreation Opportunities Spectrum.*

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# Countryside Recreation Network

A UK-wide Network, CRN gives easy access to information and people concerned with countryside and related recreation matters. The Network helps the work of organisations and individuals by:

Research:
to encourage co-operation between members in identifying and promoting the need for research related to countryside recreation, to encourage joint ventures in undertaking research, and to disseminate information about members' recreation programmes.

Liaison:
to promote information exchange relating to countryside recreation, and to foster general debate about relevant trends and issues.

Good Practice:
to spread information to develop best practice through training and professional development in provision for and management of countryside recreation.

The Countryside Recreation Network is committed to exchanging and spreading information to develop best policy and practice in countryside recreation

# RECREATION OPPORTUNITIES SPECTRUM

*Tony Philpin*

## Background

As a concept ROS (Recreation Opportunities Spectrum) can be traced back to the 1950s when the importance of diversity in recreation planning was discussed in an American journal of forestry. It was subsequently developed by the US Department of Agriculture (USDA) Forestry Service in the USA as a wilderness planning tool in the early 1970s and then translocated to other English speaking countries like Canada, Australia and New Zealand, all characterised by state owned national parks and/or wilderness areas.

The potential of the ROS was recognised early and described as: *"from the paved to the primeval"*. The Hillary Commission and New Zealand Department of Conservation have extended its range and the guidelines published in 1993 noted that ROS was: *"one of the best tools currently available for the integrated management of outdoor opportunities..... It does not answer all the questions or provide all the solutions but it does provide a logical and consistent framework for recreation decision making"*.

## The U.K. Situation

Recreation Management in the U.K. is complex. Recreation opportunities and experiences have to be integrated into a multiple land use situation. Recreation is often not the *primary* land use but is a *principal* land use, particularly in upland areas. In Britain the pattern is often a combination of multiple land use, natural resource management, environmental protection and development pressures all confined within relatively small areas geographically, and with varying degrees of dissonance. Yet we have no generally accepted approach to informal recreation planning and resource evaluation as is *de rigueur* in North America and Australasia. In addition, there are the very current issues of wild land conservation and ad hoc developments within wild areas, both in English National Parks and in Scotland. Delimiting wild land is a difficult exercise and one prerequisite to the establishment of Scottish National Parks over the next

five years or so. The Council for National Parks call for the "rewilding" of parts of English National Parks also requires a coherent and consistent framework for identification of suitable areas. Overall recreation planning and management has still to make a *prima facie* case for the legitimacy of outdoor recreation within the overall land use planning and management framework.

The Recreation Opportunity Spectrum (ROS) is a management tool that enables an integrated approach to be taken to the planning and provision of outdoor recreation and landscape conservation of open country, in particular, wild land. ROS has obvious strengths when compared with techniques such as landscape assessment as it is a descriptive tool with analytic capabilities, unlike simple landscape description. Assessment criteria are measurable. It leads on to management prescriptions and hence links strategic planning with executive functions. This has been the primary purpose of its use in North America, Australia and New Zealand. The central function of ROS is to map the provision of the supply of recreation opportunities. From this, the management of recreational activities can take place. ROS is presented as a planning tool for facilitation in the simplified form used in the BT Countryside For All Good Practice Guide to Disabled People's Access in the Countryside. It has a well established use as part of a resource appraisal process which is the essential precursor to management planning in any comprehensive resource management approach. ROS is under consideration by the John Muir Trust for use in its management planning of the Skye estates.

Implicit in the ROS approach is the concept of matching recreation activities to settings at the most appropriate level. There is a kind of elasticity possible in that inappropriate or potentially damaging activities can be regulated systematically and adherence to the twin principles of "quiet enjoyment" (at least pre 1995 Environment Act) and Sandford's precautionary principle (but applied to landscape impacts) can be built into the system. Wild land, by definition, is the least man modified setting. Logically, visible management permitting certain activities reduces wild land qualities and would be impermissible in a ROS based system.

## The Uses of ROS

In New Zealand ROS was originally used for wilderness planning but soon was adopted nationally. ROS was first used in New Zealand for recreation planning and management in a number of settings using a nationally agreed classification system.

In the UK the principal uses of ROS mapping may be:

1. *Recreation strategies*
   ROS may be used to identify the recreation 'supply' that is to be managed. The different ROS classes inform appropriate investment and management approaches.

2. *Integrated management strategies*
   Where it is important to integrate recreation with other values such as ecological protection and cultural/historical conservation, ROS identifies the recreation components. Currently there is over reliance on an *ad hoc* approach.

3. *Recreation corridors*
   Many National Trails, Regional Trails and other linear access such as proposed Greenways pass or will pass through a variety of settings and lead to management plans for sections of the Trail passing through different ROS classes. "Walking track standards" have been derived from ROS classes in Australia and the Tasmanian World Heritage Area.

4. *Management plans*
   The principles of management and resultant management programmes will be different for each of the ROS classes. Management of wild land will have different objectives and standards to urban fringe management.

5. *Formal planning – Development control, Structure/UDP and local plans*
   The ROS map is of high value to planners. The identification of tracts of land which may be a scarce recreation resource for example, Wild land and Semi-wild land in England, can inform development control and structure planning. ROS classes may be important in informing the leisure and recreation elements of local or National Park plans and can be used informally in conflict resolution approaches.

## Benefits of ROS

- Provides a rational, consistent framework for decision making;
- Recognises the complete range of recreation opportunities;
- Looks at the supply and context of recreational settings;
- Is a tool for landscape evaluation and conservation;
- Integrates planning with management;
- Enables distinct management objectives to be formulated for each ROS class;
- ROS classes are mapped on easily quantified spatial criteria;
- Allows the consequences of change to be established and monitored.

## ROS Classes & Their Definition

The naming of ROS classes varies internationally. The table below gives some equivalents. In the UK almost all land has some human modification and "wilderness", with its implication of a pristine unmodified state is substituted with "Wild land" without the same connotations.

| USA | NEW ZEALAND | UK |
|---|---|---|
| Primitive | Wilderness | Wild land |
| Semi primitive non motorised | Remote | Semi-wild land |
| Semi primitive motorised | Back Country Walk in | Open Country Walk in |
| Roaded Natural | Back Country Drive in | Open Country Drive in |
| Rural | Rural | Rural |
| | Urban Fringe | Urban Fringe |
| Urban | Urban | Urban |

## ROS Class Differentiation *(see figure 1 UK Recreation Opportunities Spectrum)*

- As class definition in the USA, Australia and New Zealand reflects their own jargon, use in this country has to conform to UK nomenclature. The criteria distinguishing between classes are indicated in the outline class summary.

- Note that the presence or absence of modern technological structures is an indicator of remoteness but the description is included under land use.

- In the UK there are no areas of natural unmodified temperate forest except for a few relict areas of Caledonian forest in Scotland, and even these have been "converted" to plantations in some areas. All planted forestry is therefore classified under RURAL as there are no semi-natural equivalents over most of the UK. The regimented and enclosed nature of plantations shows a high degree of landscape modification and complete habitat change.

- Note that the criteria for class differentiation overlap and the draft individual descriptions may be located under different headings on the summary sheet (fig 1.). Further refinement of the methodology will determine the 'best fit' for the class descriptions. Threshold distances are subjective for open and wild land classes.

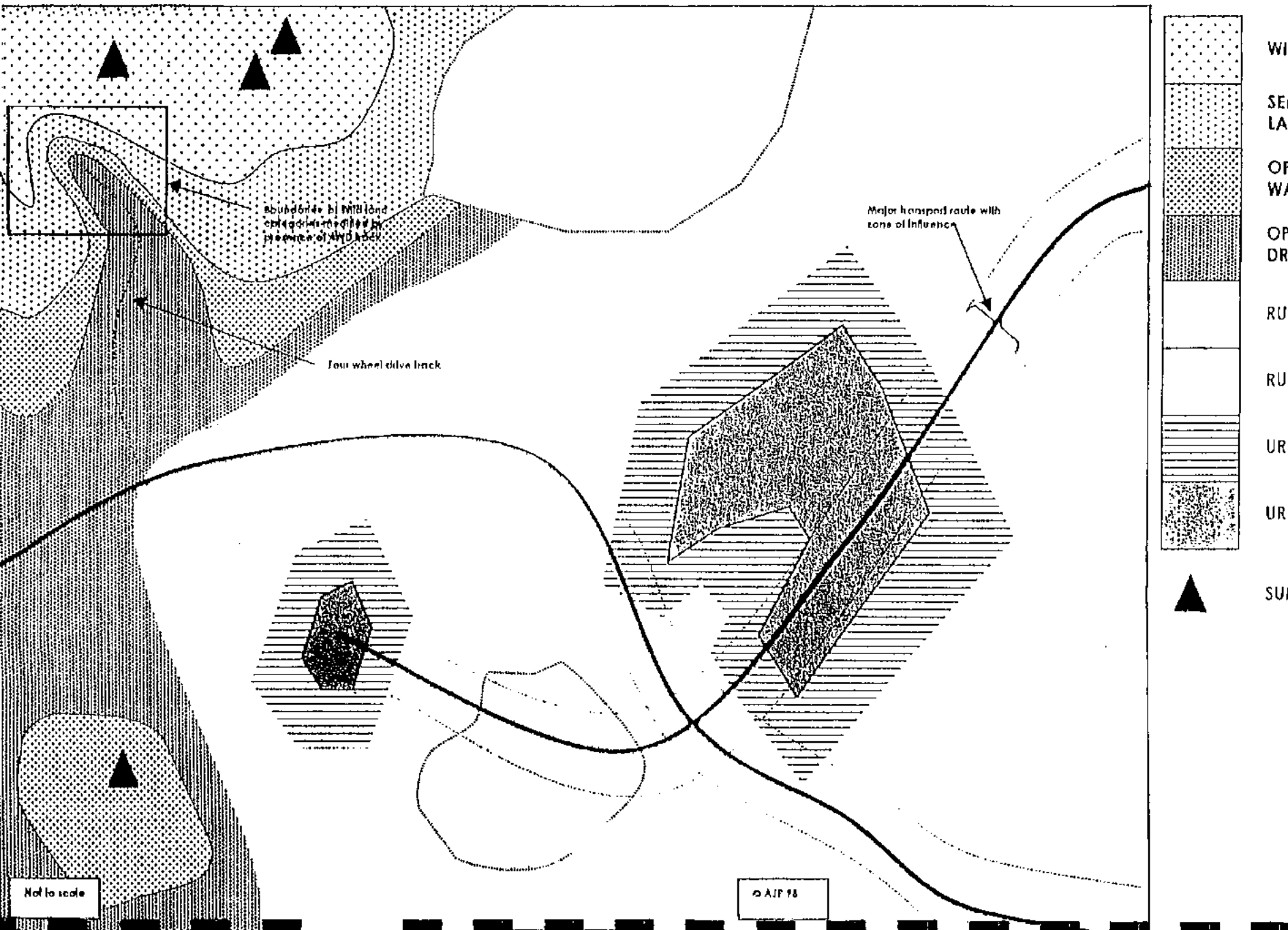
ROS Mapping

The ROS map can be viewed at a number of scales but field mapping in the U.K. requires data held on 1:50000 and 1:25000 scales. The latter is required for enclosure boundary and land use information. The draft map (see fig. 2)can be drawn as a desk exercise with subsequent field checking for details and visibility of technological structures. GIS functionality makes the process of ROS mapping considerably easier.

# U.K. RECREATION OPPORTUNITIES SPECTRUM — CLASS SUMMARY

| DIFFERENTIATING CRITERIA | WILD LAND | SEMI-WILD LAND | OPEN COUNTRY WALK IN | OPEN COUNTRY DRIVE IN | RURAL | URBAN FRINGE | URBAN |
|---|---|---|---|---|---|---|---|
| REMOTENESS INDICATORS | 4km from nearest road, 3km from 4x4 access, no constructed paths. Apparently unmodified natural vegetation. | 1km from nearest road, basic tracks, non motorised access except infrequent service use Apparently unmodified natural vegetation. | Minimum 0.5km from 4x4 access, 1km from nearest road, basic tracks, non-motorised access except infrequent service use Semi-natural vegetation | 1km from nearest road, tracks with motorised access 4x4, some 2WD, regular service access (or by motor boat) Semi natural vegetation. | Network of roads and vehicular access throughout. Individual dwellings and hamlets, villages. | Network of roads and vehicular access . Individual dwellings, villages, adjacent to suburban residential areas and edge of urban built up area. | Few elements of natural environment remain. Manmade structures predominate |
| SIZE OF AREA & BOUNDARIES | Min. 2000ha and/or boundaries clearly defined by topography, ridge lines, coasts etc., | No minimum but generally over 1000ha, boundaries natural or topographical | No minimum but generally over 1000ha. Boundaries topographical, access and land use defined | No minimum but generally Over 500ha, boundaries topographical, access and land use defined, May be smaller area, buffering Walk In or Semi-wild land. | No size criteria, cultural, landscape and land use defined boundaries | No size criteria. Cultural and land use defined boundaries some topographical. | Variable. Outer limits of residential, industrial or transport infrastructure development. |
| Transport Corridor Subclass | | Buffer zone usually 1km each side of major transport routes but may be defined and limited by visual and auditory thresholds | | | | | |
| LAND USE & MANAGEMENT | No evidence of apparent manmade structures except isolated pre-Roman archaeology | Extensive grazing, unenclosed land, isolated traces of man's activity. | Extensive grazing, unenclosed land beyond boundary enclosure, some traces of man's activity, remnant enclosures and rarely, modern technological structures, partly obscured by landscape and/or vegetation. Modification of semi-natural tree cover up to 25% wooded land. | Extensive grazing, open land beyond boundary enclosure, partly obscured by landscape and/or vegetation. Some modification of semi natural tree cover and/or inclusions of small areas of enclosed farmland | Enclosed landscape for primary production: farming, horticulture, forestry; quarrying & mining, Tourist/visitor attractions and services. Subclasses for FORESTRY, EXTENSIVE & INTENSIVE Agriculture. Service distribution networks. Includes designated areas of high recreational use | Human activity dominant. Recreation access dependent on legal network density, but frequent de facto use. Encounter probability high. | Residential, social/cultural, business, industrial, transport. |
| RECREATION USE | High probability of isolation from sights and sounds of human activity & encounters. Essential use of outdoor skills & equipment. | Moderate to high probability of experiencing isolation from sights and sounds of human activity & encounters. Reliance on outdoor skills off defined trails. Outdoor equipment essential. | Moderate to high probability of experiencing sights and sounds of human activity & encounters. Experience of outdoor recreation with convenience of proximity to access and shelter. | Moderate to high probability of experiencing sights and sounds of human activity & encounters. Experience of outdoor recreation with convenience of proximity to access and shelter. | Sights and sounds of human activity dominant. Most informal recreation access dependent on legal PROW network density. Some access charging. Encounter probability highly variable. | Dominantly commercial and/or formally site based recreation. Wide variety of activities, recreation provision may be limited in residential areas. | Dominantly commercial and/or formally site based recreation. Wide variety of activities, recreation provision may be limited in residential areas. |
| RECREATION MANAGEMENT | No discernible management presence - exceptions are Search & Rescue and imperceptible environmental management. Non-promotional. Wild camping may or may not be permitted. | Possibly traditional and/or vernacular trail surfaces, few or no bridged crossings, some navigation markers, few perimeter signs. Infrequent mustering of stock. Search & Rescue. Imperceptible environmental management, possibly few short duration enclosures. Wild camping may be permitted. | Traditional / vernacular trail surfaces, predominantly forded or bridged crossings on well used routes only, navigation markers, perimeter signs and at major trail intersections. Mustering of stock and some outfeeding. Environmental management, possibly temporary enclosures. Wild camping may be permitted. | Traditional/vernacular trail surfaces, predominantly forded or bridged crossings on well used routes, navigation markers, perimeter signs and at major trail intersections. Mustering of stock and outfeeding. Perceptible environmental management, possibly some temporary enclosures. Camping may be permitted. | PROW or other access network management. Site facilities and services. Picnic sites characteristic of popular locations. Camping and caravan sites present. | PROW or other access network management. Site facilities and services. Popular de facto locations. Management of environmental quality. | Formal parks etc., and commercially based activities |

# SCHEMATIC of RECREATION OPPORTUNITIES SPECTRUM ZONES



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*This paper has been rewritten by Tony Philpin from 1995 CRN conference workshop notes by Colette Mascall and Tony Philpin and represents the draft of a UK methodology for the application of the Recreation Opportunities Spectrum.*

## Appendix One – Recreation Opportunity Spectrum class definitions

### WILD LAND

| | |
|---|---|
| *Remoteness* | 4km from nearest road, 3km from 4x4 access, no constructed paths. Apparently unmodified natural vegetation. |
| *Size of area* | Min. 2000ha and/or boundaries clearly defined by topography. |
| *Boundaries* | |
| *Land use* | No evidence of apparent manmade structures except isolated pre-Roman archaeology. |
| *Use pattern* | High probability of isolation from sights and sounds of human activity & encounters. Essential use of outdoor skills & equipment. |
| *Management* | No discernible management presence with the exceptions of Search & Rescue and imperceptible environmental management. Non-promotional. Wild camping may or may not be permitted. |

### SEMI-WILD LAND

| | |
|---|---|
| *Remoteness* | 1km from nearest road, basic tracks, non-motorised access except infrequent service use. Apparently unmodified natural vegetation. |
| *Size of area* | No minimum but generally over 1000ha, boundaries natural or |
| *Boundaries* | topographical. |
| *Land use* | Extensive grazing, unenclosed land, isolated traces of man's activity. |
| *Use pattern* | Moderate to high probability of experiencing isolation from sights and sounds of human activity & encounters. Reliance on outdoor skills away from defined trails. Outdoor equipment essential. |
| *Management* | Possibly traditional/vernacular trail surfaces, predominantly unbridged crossings, some navigation markers, few perimeter signs. Infrequent mustering of stock. Search & Rescue, also imperceptible environmental management, possibly a few short duration enclosures. Wild camping may be permitted. |

### OPEN COUNTRY WALK IN

| | |
|---|---|
| *Remoteness* | Over 0.5km from 4x4 access, 1km from nearest road, basic tracks, non-motorised access except infrequent service use. Semi-natural vegetation. |
| *Size of area* | No minimum but generally over 1000ha, boundaries topographical, |
| *Boundaries* | access and land use defined. |
| *Land use* | Extensive grazing, unenclosed land beyond boundary enclosure, some traces of man's activity, remnant enclosures and rarely, modern technological structures, partly obscured by landscape and/or vegetation. Modification of semi-natural tree cover up to 25% wooded land. |
| *Use pattern* | Moderate to high probability of experiencing sights and sounds of human activity & encounters. Experience of outdoor recreation with convenience of proximity to access and shelter. |
| *Management* | Traditional/vernacular trail surfaces, predominantly forded or bridged crossings on well used routes only, navigation markers, signs at major trail intersections and along perimeter. Mustering of stock and some outfeeding. Perceptible environmental management, possibly temporary enclosures. Wild camping may be permitted. |

OPEN COUNTRY DRIVE IN

*Remoteness* 1km from nearest road, tracks with motorised access 4x4, some 2WD, regular service access (or by motor boat), semi-natural vegetation.

*Size of area* / *Boundaries* No minimum but generally over 500ha, boundaries topographical, access and land use defined, may be smaller area buffering *walk-in* or *semi-wild land.*

*Land use* Extensive grazing, unenclosed land beyond boundary enclosure, traces of man's activity, remnant enclosures and infrequent modern technological structures, partly obscured by landscape and/or vegetation. Modification of semi-natural tree cover by plantations and/or inclusions of small areas of enclosed farmland.

*Use pattern* Moderate to high probability of experiencing sights and sounds of human activity & encounters. Experience of outdoor recreation with convenience or proximity to access and shelter.

*Management* Traditional/vernacular trail surfaces, predominantly forded or bridged crossings on well used routes, navigation markers, signs at major trail intersections and along perimeter. Mustering of stock and outfeeding. Perceptible environmental management, possibly some temporary enclosures. Camping may be permitted.

RURAL

*Remoteness* Network of roads and vehicular access throughout. Individual dwellings, hamlets, villages.

*Size of area* / *Boundaries* No size criteria, cultural, landscape and land use defined boundaries.

*Land use* Enclosed landscape for primary production: farming, horticulture, forestry; quarrying & mining, tourist/visitor attractions and services. Subclasses for forestry, extensive & intensive Agriculture. Service distribution networks. Includes designated areas with high recreational use.

*Use pattern* Sights and sounds of human activity dominant. Most informal recreation.access dependent on legal PROW network density. Some access charging. Encounter probability highly variable.

*Management* PROW or other access network management. Site facilities and services, picnic sites characteristic of popular locations. Camping and caravan sites present.

RURAL SUBCLASSES

*Forestry* Planted coniferous or deciduous woodland with access tracks. May include relict primary woodland and semi natural secondary woodland of native species. (This may be required to be a separate subclass).

*Extensive* Non improved grazing of semi natural vegetation. Possibly some *Agriculture* field drainage.

*Intensive Agriculture* Improved grassland, arable grassland and arable cropping.

URBAN FRINGE

| | |
|---|---|
| *Remoteness* | Network of roads and vehicular access throughout. Individual dwellings, villages, adjacent to suburban residential areas and edge of urban built up area. |
| *Size of area*<br>*Boundaries* | No size criteria. Cultural and land use defined boundaries some topographical. |
| *Land use* | Enclosed landscape with some primary production: farming, horticulture, forestry; quarrying & mining, industrial and residential, transport infrastructure. Planned and formal visitor attractions and services. Service distribution networks. |
| *Use pattern* | Human activity dominant. Recreation access dependent on legal network density, but frequent de facto use. Encounter probability high. |
| *Management* | PROW or other access network management. Site facilities and services. Popular de facto locations. Management of environmental quality. |

URBAN

| | |
|---|---|
| *Remoteness* | Few elements of natural environment remain. Man made structures predominate. |
| *Size of area*<br>*Boundaries* | Variable. Outer limits of residential, industrial or transport infrastructure development. |
| *Land use* | Residential, social/cultural, business, industrial, transport. |
| *Use pattern* | Dominantly commercial and/or formally site based recreation. Wide variety of activities, recreation provision may be limited in residential areas. |
| *Management* | Formal and commercially based. |