Literature Review of Beach Awards and Rating Systems

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Executive Summary

Purpose of Report

This report was commissioned to review available literature about overseas initiatives that promote environmental stewardship of coastal areas. The aim is to identify those that offer opportunities for communities to be involved and participate in the management of the Waikato Region's beaches.

This report focuses on beach award and rating system initiatives. These have potential to extend Environment Waikato's community Beachcare projects in beach and dune management to involving communities (resident and visiting) in management of the wider coastal area and promoting wider community awareness and engagement in coastal issues. Environment Waikato can learn from experiences elsewhere to determine how effective various initiatives could be in the Waikato context.

Findings

Beach award/rating systems attempt to simplify and communicate the complexity of beach environments to meet the needs of particular target audiences. Many of these systems have largely focused on beach tourism/market values. However, there is potential to utilise such systems to further education and awareness of coastal management issues and engage communities and beach users in the sustainable management of coastal environments.

Award/rating systems that focus on attracting tourists tend to have criteria that require higher levels of infrastructure that are more appropriate for urban/resort beaches. Systems that have criteria applicable to less-developed conservation or rural beaches, such as those found in the Waikato, were also developed. These help preserve the more pristine nature of the rural beaches and retain the characteristics valued by beach users and local communities.

There is no 'off-the-shelf' system that could immediately be adopted from overseas for the Waikato Region, However, this review highlights useful elements on which to base a system suitable for the Region or nationally.

The Waikato has many relatively rural beaches compared with European settings – even popular beaches like Whangamata are relatively rural when compared with the resort style European beaches where comparatively high levels of infrastructure and visitor facilities are present – Waikato beaches are characterised more closely with the rural categorisation of the beach rating systems reviewed. Therefore, rating systems that included some form of categorisation based on the separation of 'rural' from 'urban' beaches would be most appropriate and there is potential to have no rating system applied if that proves the most appropriate at some beaches.

The most applicable system at present is the Welsh Green Coast scheme, which includes a requirement for community-based beach management and was designed specifically to promote and protect rural Welsh beaches without requiring infrastructure associated with more urbanised beaches.

Overview of Beach Award/Rating Systems

The concepts of rating systems, awards, guides and campaigns are often combined in the literature and in practice. Many rating systems have been developed as part of (eco-labelling) campaigns to improve facilities or environmental quality at particular locations, promote locations to visitors/tourists or provide potential users with information on which to choose a destination. Some rating systems have been developed as research exercises to compare different coastal environments on some

standardised scale, but usually with a particular management objective in mind. Awards and guidebooks are usually part of an accreditation system based on a rating system. However, the guidebooks, awards and campaigns often develop their own rating systems so it is often talked about as if it were an intrinsic part of the particular guidebook, award or campaign. For simplicity, we have used the terms 'campaign', 'award', 'rating system' and 'guidebook' as they are generally used rather than adopt a more rigorous classification separation.

Much of the early work done on beach awards and beach rating systems originated in Europe, but in recent years they have been developed by other countries, including the United States. The Blue Flag campaign is the most internationally recognised beach award system. When it was first established in France in 1985, it showed clearly which beaches were safe to swim in, in a region where many were not. It was taken up widely by both destinations and consumers, and established a public profile. Most of the later award systems are adaptations or extensions of this, seeking to address its shortcomings.

Many of the earlier beach rating systems did not take into account beach users' perceptions of the environment and made very limited use of bio-physical parameters - other than water quality as the key element in deciding a beach's quality. In recent years there has been increasing recognition of beach users' concerns and these have been gradually incorporated into some of the more novel beach awards and rating systems. It is important that any beach quality system should take into account the physical, biological and human parameters identified as significant by beach users as these have influenced their decisions to visit certain beaches. A focus on all three components is also necessary to improve management, conservation and overall environmental quality of beaches.

Not all of the awards looked at urban and rural beaches separately. Studies have revealed that the main attraction with rural beaches is their less developed and relatively 'pristine' character. Some awards, for example Blue Flag, require that beaches be relatively developed and offer certain facilities to beach users (such as wider access roads, constructed paths and beach cleaning). This emphasis on urban beaches and attempts to standardise all beaches may lead to rural beaches becoming relatively developed to be eligible for certain awards or to a perception that they are of lower quality.

Research into award/rating system recognition has focused on beach users' understanding of the award systems, rather than on the local communities or whether beach users have benefited from award schemes. A study of Blue Flag, Seaside Award and Good Beach Guide beaches demonstrated that there was generally low public awareness of beach award/rating systems, knowledge of criteria used and of the award/recommendation status at particular beaches (Nelson et al., 2000).

Nearly all of the certification systems are supported by some form of local authority or national government funding. Most also draw on sponsorship from various business sectors. The nature of funding does not appear to affect credibility.

Applicability to the Waikato Region

There appears to be no 'off-the-shelf' system readily applicable to the New Zealand context. Given the predominance of rural beaches and natural character requirements of New Zealand legislation, approaches such as the 'Blue Flag' may have limited applicability in New Zealand because of the focus on urban/resort beach environments and requirements to clean beaches of natural detritus. For a beach to gain a 'Blue Flag' classification under New Zealand law would require actions to be taken that would require Resource Management Act consents, for example to undertake beach cleaning. In addition, a beach community seeking to gain 'Blue Flag' status for tourist promotion may push for higher levels of tourist attractions and facilities, this level of infrastructure may be deemed inappropriate by another community; with the result that

the less developed beach may be viewed as of lower quality (because it has not gained 'Blue Flag' status) by visitors when in fact environmental quality is comparable.

However, an appropriate system for the New Zealand context should seek practical linkages or internationally comparable categories in rating systems where appropriate, because international visitors are aware of such schemes. The type of rating system most appropriate for the Waikato Region (and New Zealand) depends on the purpose. A rating or award system to promote tourism may be quite different to one designed to engage the Region's communities in sustainable management of beach or coastal environments.

Useful alternatives to 'Blue Flag' include 'Blue Wave' (US), 'Green Coast' (Wales), 'Seaside Award' (UK), the 'Good Beach Guide' (UK-Marine Conservation Society), 'Healthy Beach Campaign' (Florida) and the 'Maltese approach'. The 2005 agreement between the organisations managing the Blue Flag and Blue Wave systems requires that Blue Wave not be promoted outside the USA and that the two systems be made compatible. It is not clear how this will occur or whether it will mean the Blue Flag system will adopt the Blue Wave rural beach category. If it does, then the Blue Flag approach will need to be reconsidered, as it may be more relevant given its a high international recognition factor.

Conclusions

The various award and rating systems reviewed were not consistent in their approach to community involvement in their design and implementation. Most appeared to consider community involvement to be important, although they lacked clarity in identifying 'communities'. Recognition of high beach quality may lead to collective action by communities to maintain the standards, but a Brazilian study has indicated that a low quality assessment may be counter-productive - the local community may opt to live with the lower standard and feel less inclined to advocate for change. This suggests that rating and award standards should be appropriate to the context with an associated campaign for improvement. Rating and award systems should not be seen as stand-alone initiatives, but are tools that may be effectively used to promote environmental awareness and involvement of local communities and visitors in environmental management.

In our view, the most suitable system at present is the Welsh Green Coast scheme. It includes a requirement for community-based beach management and limits 'cleaning' of natural beach detritus to standards more appropriate to the Waikato Region. Other systems with potential as a basis for developing systems for the Waikato Region are those of Leatherman (used by the USA's Healthy Beaches Campaign), the UK Seaside Award and the USA's Blue Wave Campaign (which address rural coasts and have clear criteria for assessment). The UK's Marine Conservation Society's Good Beach Guide is also useful to build on. Each of these systems caters for the needs of the tourist/visitor. In urban or resort areas we consider one of the other systems, such as Blue Flag, should be considered.

1 Introduction[1]

1.1 Purpose and Methodology

This report was commissioned by Environment Waikato with the purpose of reviewing available literature on various beach awards and beach rating systems in use overseas to identify those that offered opportunities for the Waikato Region's communities to be involved with and participate in sustainable management of the Region's coasts.

The coastal environment tends to be in a state of greater flux than many other environments and human activities can have significant and relatively rapid impacts on the environmental quality of coastal areas. Coastal areas also tend to be magnets for tourists and visitors to the Region and have come under increasing pressure from land development, especially for housing. With increasing use comes demands for greater levels of facilities and services; ranging from lifesaving services to litter bins provision, car-parks and marinas. Among the more significant land development impacts are changes in run-off (affecting water quality), loss of natural character and accelerated erosion. Land development can also be vulnerable to natural processes of erosion, and beach use and bathing can be affected by loss of water quality and conflicting activities.

Pressure on the coastal environment comes from both the permanent residential communities and the visiting communities, both of which have different incentives for acting in sustainable ways and supporting or seeking environmentally well-managed coastal environments. Environment Waikato's research (Thomson 2003) has highlighted that the Region's residents contribute (as visitors) to pressure on beaches in other regions (notably Mount Maunganui in the Bay of Plenty region). Visitors and tourists from elsewhere (especially from the Auckland Region) place considerable pressure on the coastal environment of the Waikato Region and are significant contributors to the Region's tourism economy. Therefore, there are good reasons for seeking tools that might provide incentives for local communities to become involved in environmental practices that notably improve the coastal environment's capacity to cope with visitors.

This report reviews the literature on the various beach awards, beach rating schemes, beach guides and beach competitions in use internationally. It provides an overview of each system and the strengths and weaknesses (or critiques) of each system. The review also includes some of the different criteria used in the various systems and this is appended to the report.

This study informs Environment Waikato's Coastal Strategy Team about beach award and rating systems that may be useful in the development of strategies to engage with the Region's communities on coastal issues and their management. The aim is to better understand beach users' and coastal communities' awareness of and participation in such systems overseas where the goal is to promote public awareness of issues affecting the coast and participation in the sustainable management of the coastal resource.

1.2 Structure of the Report

The report has the following structure:

- Section 2 details the various beach award and rating strategies and their strengths and weaknesses

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[1] The authors thank the assistance of the many members of the International Geographical Union Sustainable Tourism Group (IGUST) who provided helpful comments or material in response to our request for information, and Anji Davies (Environment Waikato) for her many useful comments and insightful questions.

- Section 3 makes recommendations regarding the existing beach schemes in relation to their applicability to the Waikato Region
- Section 4 summarises the main findings of the report

1.3 Importance of Beaches

The coastal area is home to over half of the world's population and is often subject to intense and increasing human use pressure, especially beaches and estuaries (UNCED, 1992). The impact of adverse effects on ecosystem services is often most apparent at such beaches in the form of lowered water quality and loss of natural character and amenity values. Beaches are important generators of revenue and the coast encompassing beach and near shore waters often provides an environment which is favourable for recreation and leisure activities and this in turn, supports the biggest tourism trade of any environmental type in the world (Nelson et al., 2000).

The coastal zone signifies one of the most valuable and productive ecosystems in existence today and provides popular outdoor recreation opportunities including beach recreation, fishing, boating, commerce and wildlife viewing (Pereira et al., 2003). However, due to the increasing number of human settlements along coastal areas, it is likely that the exploitation and degradation of these areas will intensify. In the United States and in other countries, what some oceanographers customarily refer to as the 'ring around the bathtub' is home to some of the most expensive real estate and these areas are urbanising at a very rapid rate so there is much public concern about the quality of these coastal areas (Leatherman, 1997). This will require regulating the human/environment interactions through sound management practices, implementing policies which take into account the opinions and concerns of the public (Blakemore and Williams, 1998).

For many people, the presence of beaches is an attracting factor when deciding where to holiday (Bojanic, 1992; Ryan, 1995). Clean beaches, especially, are an important factor for visitors deciding to holiday at waterside resorts (Oldridge, 1992; Morgan et. al., 1993). For families that have young children, the beach is seen as a social facility where children can play with other children and where parents can meet with other parents and share the duties of supervising their children (Ryan, 1995). Many young adults use the beach for recreation (most often with their peers) and may also require the use of water sports facilities (Ryan, 1995). Beaches have a strong appeal for the young and for those with young children as well as for those looking for more contemplative experiences and this is likely to continue for some time, despite new fears of over-exposure to the sun (Ryan, 1995).

For most New Zealanders, going to the beach is a leisure activity and it is done to get away from our structured lives (Carlin, 1999). It is often seen as an essential part of our lifestyle and is part of our culture (Barnett and Wolfe, 1993).

1.4 Waikato Beaches

The Waikato Region has an open coast and estuarine shoreline of approximately 1,150 kilometres and this coastline is divided into two distinctive areas: the East Coast and the West Coast (Environment Waikato, 1998).

The East Coast area includes the Coromandel Peninsula and the Firth of Thames, while the West Coast is the area from just north of the Port of Waikato heads to the Mokau River mouth. There are no major ports or continuous networks of urban communities on the Waikato coasts and in international terms it is predominantly rural.

The eastern side of the Coromandel Peninsula is characterised by white sandy beaches often separated by rocky headlands. Its estuaries are relatively pristine and the beaches in this area are very popular holiday destinations, especially during summer, due to its significant natural and amenity values. The large settlements of

Whangamata, Tairua/Pauanui and Whitianga are located adjacent to the beaches and estuaries in this area – in New Zealand these beaches could be viewed as urban, but are comparatively rural by European standards. The western Coromandel and Firth of Thames consist of a very narrow coastline and include many mixed sand and gravel beaches. Although the beaches in this area are sheltered from most ocean swell, it is often subject to local wind-generated waves (Environment Waikato, 1998).

A significant problem facing East Coast beaches is coastal erosion and loss of natural character caused by human activities such as urban settlement and development, roading, reclamation, agriculture, forestry and marine farming. But despite this, its beaches continue to be a major draw card for tourism and recreation. However, it is likely that coastal erosion and human activities may have important repercussions for this major asset if the use of this environment is not well-managed.

The West Coast beaches generally consist of long sandy beaches that are often rugged having been exposed to high wind and wave energy. The beaches are usually backed by steep cliffs and extensive dunes. Its estuaries are important natural habitats for plants and animals (Environment Waikato, 1998).

Although there is much less pressure for development in this area compared to East Coast beaches, similar erosion and human activity-related problems do occur at some beach settlements (Environment Waikato, 1998). West Coast beaches have the potential to attract significantly greater numbers of visitors in the future; if properly developed and if it is the desire of its local communities to move in that direction.

The Region has a number of Beachcare and Landcare groups working to rehabilitate their local environments. Funding for community projects is available from organisations like the Ministry for the Environment's Sustainable Management Fund, local authorities and trusts and, for research from the Foundation for Research, Science and Technology (FRST). Environment Waikato has played a leadership role in community-based natural resource management in New Zealand.

1.5   Overview of Beach Awards and Rating Schemes

Beach awards and rating systems that emphasise that higher environmental qualities are present than at other beaches are forms of eco-labels. Eco-labels are intended to indicate to potential consumers or users of the asset, product or service that it has less environmental negatives than others. Eco-labelling schemes are commonly voluntary in nature. The assets, products and services have to meet certain established criteria in order to be awarded the eco-label. Once a consumer or user sees the eco-label, there is an expectation that they will accept the label as a form of guarantee that the product or asset has incurred or had fewer negative environmental impacts than other similar competing products (European Union, 2005).

The quality of a coastal environment is largely a consequence of human activities directly or indirectly affecting it. In that sense the coastal environment is a product of the management of people's activities. At the micro-scale individuals or companies may adopt particular production and servicing systems that warrant award of an eco-label (e.g. Green Flag scheme, see section 2.1.8). If sufficient individuals adopt such approaches these may have a cumulative positive effect on parts of the coastal environment, but the consequent improved quality of that particular coastal environment will not be recognised unless there is a form of eco-labelling of the coastal environment itself.

Those agencies (e.g., local authorities) with responsibility for ensuring the sustainable management of coastal environments may find eco-labels of some advantage in encouraging communities to act cooperatively to improve the overall quality of their environment. In the same way that individual eco-labels provide incentives for businesses to adopt more environmentally friendly production or servicing systems an

eco-label for the particular coastal environment may provide incentives for the community. The eco-label can be seen as a goal to strive for, a reward for achievement, and/or a market advantage in promoting an area to potential 'consumers' of the services the asset (and its local community) might provide. In other words, it may attract more tourism and development to an area.

A 'beach award', which almost invariably arises from some form of rating system, is a form of eco-label that might achieve such desired results. Accreditation to a particular standard in a rating system (e.g., Blue Flag, see section 2.1.1) is a similar form of eco-labelling. The effectiveness of most eco-labelling systems is based on the credibility or legitimacy of the process by which the label is awarded.

Beach awards are often bestowed upon beaches that have achieved some form of standard of environmental quality. There are usually certain criteria that have to be met prior to conference of an award and often there is a sense of recognition and achievement associated with an award.

Beach rating schemes on the other hand usually involve measuring the physical, biological and human-use factors of beaches against a checklist or list of criteria and determining how beaches fare against such criteria. Rating levels indicate to the consumer the absolute and relative level of some specified characteristic of a product and are often seen as a shorthand way of conveying information to customers (Staines and Ozanne-Smith, 2002). Beaches are graded or rated according to those that perform relatively well against such a checklist. These rating schemes markedly differ in the criteria they use and some rating schemes include a large number of different sets of criteria, while others focus on a very narrow base criterion (Staines and Ozanne-Smith 2002).

Beach awards and rating schemes may be used by the general public to inform their choice of beach leisure destinations (Nelson et al., 2000). They are often perceived to be a promotional tool in the successful development of beach tourism in a particular area and help to bring much needed revenue to local economies. As such they are often utilised as an incentive programme by local authorities, tourism promoters and beach managers to involve all parties concerned in participating in optimising beach safety, water quality and education activities (Nelson et al., 2000).

However, studies by Nelson et al. (2000) indicated that beach user opinions and knowledge of the various awards were very limited and only half of the people that were surveyed were actually aware of the award flags in use. When asked to state what their understanding of what a flag represented at any beach, 30 percent of the respondents had no understanding of beach awards at all and over 70 percent of the respondents had no knowledge of the criteria used in the various awards. Although this may appear somewhat negative, it also indicates that beach awards had some form of recognition among about 50 percent of respondents.

Beach awards generally recognise the effort of achieving specified standards and can create an important impetus for change, integrating a variety of factors, including water quality, safety, litter, and beach management practice in general (Van Maele et al., 2000). In addition, international and national beach award/rating schemes are used to advise businesses that operate nearby of the relative environmental quality of their beaches. The businesses have an incentive to ensure maintenance or enhancement of a high quality environment to reduce their exposure to business risks that might be caused by adverse publicity (i.e., about poor water quality). Unfortunately, this may also act as a disincentive to participate in or support a beach rating system.

Beach award and rating schemes also provide local authorities with an incentive to realise and support community involvement in beach management strategies as important and valuable. Award and rating schemes may therefore be generated and used by a community to place pressure on political bodies to take particular actions.

To some extent this might lead to a skewed response by authorities to coastal environmental issues as those communities with higher capacity for collective action might gain leverage to have their needs addressed earlier than the quality of their environment might otherwise warrant (relative to places with less capacity for collective action) (see, for instance, Pereira et al.'s (2003) study of beaches in Brazil). It is therefore important that local authorities have an understanding of the rating and award systems available and in use.

However, the proliferation of the awards, especially in the UK, and the variations in scope of the award schemes creates a great deal of confusion for the public over the different systems available. Studies have shown that the level of public awareness and understanding of the awards is low and there is some public distrust of their validity (Morgan, 1999; Nelson et al., 2000; Nelson and Botterill 2002; Staines and Ozanne-Smith 2002)[2]. Beach awards and rating schemes have also received criticism for lacking the input of beach users' perceptions in their design and relying on the judgement of experts as to which attributes contribute to a quality beach environment and how to evaluate them (Nelson et al., 2000).

None of the main recognised awards (European Blue Flag, Seaside Award and Good Beach Guide) assess all the aspects of the beach environment that recent research projects have found to be of importance to actual users (Williams and Morgan, 1995; Morgan, 1999; Nelson et al., 2000). Researchers suggest that the ideal scheme should consider physical, biological and human parameters, as do the Clean Beaches' Council's Blue Wave Programme (see section 2.1.6) and rating schemes such as those developed by Williams et al., in 1993 and Leatherman (1996) (Williams and Morgan, 1995; Van Maele et. al., 2000; Williams et al., 2000). While physical and biological parameters (usually associated with beach hazards and water quality) are relatively easy to measure, the human parameters are more difficult to assess because they need to include the varying concerns and opinions of beach users that tend to be more difficult, both logistically and substantively, to assess (Williams and Morgan, 1995; Van Maele et al., 2000). The emphasis in such ideal rating systems tends to be on providing a 'neutral' assessment as a basis for action. The researchers behind such approaches leave the involvement of communities to change agents who may use the rating systems as a basis for campaigning for improvement, but acknowledge the importance of perceptions of the coastal environment in creating a momentum for change.

Often the existing rating schemes place little importance on beach users' perceptions of the coastal environment, despite these being essential components of successful management practices (Williams and Morgan, 1995; Nelson and Botterill 2002). More often the emphasis is on water quality criteria, the sampling strategy of which remains highly controversial (Micallef and Williams 2002).

It has been suggested that some beach award programmes have generated impacts far beyond the purpose for which they were intended: economic, environmental and political (Staines and Ozanne-Smith 2002). Such impacts are not always positive and there are also suggestions that the standards set by some awards may not be sufficiently high (Staines and Ozanne-Smith 2002).

Many beach awards are aimed at resort or urban beaches with little attention paid to more remote rural beaches which, for example, characterise the Welsh coastline (and Waikato's) and contribute to its beauty (Nelson and Botterill 2002). This emphasis on urban beaches and attempts to standardise all beaches may lead to rural beaches becoming relatively more developed in order to be eligible for certain awards (e.g., the Blue Flag).

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[2] The awards which were reviewed were the Blue Flag Scheme, Seaside Award and Good Beach Guide (Morgan, 1999; Nelson et al. 2000), and the Green Coast Award (Nelson and Botterill, 2002)

Many beach users in the area surveyed by Morgan (1999) did not desire beaches to be 'improved' either in terms of supplementation of facilities (e.g., refreshments, car parking) or in terms of resort/area infrastructure development to ease access (wider access roads, constructed paths), as required by the Blue Flag and Seaside Award schemes. These views may illustrate the desire of some beach users to preserve pristine, undeveloped beach environments, or result from a fear that such developments could increase visitor numbers with consequent reductions in the solitude and calm they are seeking (Morgan, 1999).

Particular concern has been raised about the impacts of the loss of a Blue Flag status. Manning (1998) states that "European destinations can lose coveted Blue Flag status for their beaches due to polluting activities of others. Local mayors have lost their posts because of the loss of Blue Flag status, and the economic result can be closed hotels, empty restaurants and unemployed vendors".

The impacts of the high level of beach cleaning on wildlife have also been highlighted. It has been suggested that the high standards required to achieve Blue Flag status may be leading to over cleaned beaches because mechanical beach cleaning removes ecologically important seaweed as well as rubbish (BBC News 2001). In this respect, the Welsh Green Coast scheme limits beach cleaning to manual operations and with a number of additional constraints.

Morgan's (1999) research, a pilot attempt to devise and use a system that took into account user preferences, recognised that not all aspects of beaches are of equal importance and had regard to differing requirements at different types of beaches. The study also questioned whether an 'idealised' beach rating system reflecting users' desires could be constructed from preference/priority information for individual beach aspects. He concluded that there should be a requirement that beaches meet minimum standards for a range of the most important beach aspects (as required by some existing beach awards) in order to achieve a particular overall rating level. This rating level could either be in terms of a percentage, as in his study, or a numerical/alphabetical grade.

1.5.1 Importance of Community Participation in Beach Quality Schemes

To be successful, beach quality schemes (awards or rating systems) need to have a comprehensive understanding of the nature and dynamics of beaches including their use. For example, the physical, chemical and biological interactions that take place on and around the beach, the needs and perceptions of the beach users', economic and tourism interests and environmental protection measures (Van Maele et al., 2000). Conflicts between the various beach users may arise and these are best resolved through effective communication at an early stage with active participation by all parties involved, especially the local communities affected and general public (Van Maele et al., 2000).

Whether or not a beach management programme is successful depends very much on the active participation and involvement of the local communities and of beach visitors (Camhis and Coccossis, 1982; Gubay, 1994; Pereira et al., 2003). Communication problems and differences may arise between urban and rural beaches. However, beach managers should consult with and inform beach users at all necessary stages (Van Maele et al., 2000). The underlying principle behind community participation and involvement is that the public has a right to know, a right to be heard and a right of co-decision (Van Maele et al., 2000). This is in line with the principles of Agenda 21, that the public be allowed to be involved in all areas of information gathering and in the management of recreational water use areas (UNCED, 1992).

It is highly likely that for resort beaches their management will lie principally in the hands of the local council or health authority, whereas for rural beaches the

responsibility for upkeep and management will reside more with the local community and individual users.

The public should be strongly encouraged to pursue active roles in beach quality schemes. Where possible, public participation in monitoring could be encouraged because this may raise awareness of the condition of the particular recreational waters and also provide a cost-effective method of gathering large amounts of data which can then be acted upon by beach managers (Van Maele et al., 2000; Williams et al., 2000).

Public involvement in special interest groups such as voluntary lifeguard and Beachcare associations helps to educate the public about self protection as well as the protection of their environment (Van Maele et al., 2000).

The Keep Wales Tidy Green Coast Award criteria requires the involvement of volunteers in beach cleanups, but the majority of beach awards such as the Seaside Award for resort beaches and the Blue Flag Campaign do not necessarily require volunteer involvement in beach management (Storrier and McGlashan (in press)). The involvement of the public in beach cleanups and beach litter programmes creates opportunities to model a new social norm (or strengthen an existing one), which may translate into effective individual action to reduce litter and create a sense of environmental responsibility in the public (Storrier and McGlashan (in press); Van Maele et al., 2000). Beach cleanups are constrained by the scale and limited nature of their impact, but they may be useful if designed to be public participation exercises and simultaneously raise public awareness. The use of volunteers also reduces labour costs (Williams et al., 2000).

Storrier and McGlashan observe that beach cleanups is an area that needs to be addressed in rating systems if awareness about beach litter is to be raised by increasing the involvement of local communities (Storrier and McGlashan (in press)). This may also lead to increasing public knowledge of beach awards, which Nelson et al., (2000) showed to be lacking in their study of various beach award schemes.

2 Beach Awards and Rating Strategies

There have been a number of strategies employed in a variety of international settings which seek to address various issues associated with beach management. These include beach safety and amenity, the presence of adequate facilities and the ability to promote tourism in the area concerned. These strategies have mainly taken the form of accreditation and award schemes, beach guides, rating systems and competitions. In this section a number of popular beach award schemes and beach rating systems are reviewed: who operates them, how they operate, what their goals are and the merits and critiques (if available) of each initiative.

It should be noted that although, we treat the Blue Flag and Blue Wave systems separately, a Memorandum of Agreement (MOU) (February 2005) between the organisations that operate these two accreditation systems requires that they move toward compatible integrated award systems (see Appendix VIII). The MOU also limits the promotional activities of the two organisations to the USA (Blue Wave) and the rest of the world, but including Puerto Rico (Blue Flag).

2.1 Accreditation and Award Schemes

2.1.1 Blue Flag Campaign

The Blue Flag campaign was first launched in France in 1985 and was, at that time, concerned only with the water quality of beaches. Owned and run by FEE (Foundation for Environmental Education) – a not for profit organisation - it has internationally recognised organisations as its main partners.

In 1994, 1454 beaches possessed a Blue Flag along with 337 marinas; in 1998 it had grown to 1927 beaches and marinas in 19 participating countries. By 2004, more than 2900 beaches in 29 countries across Europe, South Africa and the Caribbean had been awarded Blue Flags.

The Blue Flag Campaign is an accreditation scheme that works towards sustainable management at beaches and marinas through four strict main criteria: water quality, environmental education and information, environmental management, and safety and services. Providing environmental education for the public, decision makers and tourism operators is one of the programme's main components.

The Blue Flag logo, a white circle with a bottle floating on three wave crests, is a symbol used to denote a beach or marina that has met specific environmental criteria, and as such is meant to convey a message of personal health and safety to beach users. It's design originated in a pollution-tracking campaign of the Foundation for Environmental Education in Europe (FEEE) and this particular campaign involved the use of bottles containing messages that requested those finding them to contact FEEE, and was designed to track the spread of solid waste at sea.

The campaign is promoted via leaflets, press releases, on-site notice boards and display of award flags at qualifying beaches and is by far the most widely publicised in the media (particularly television and newspapers), which may account for its higher awareness level amongst beach users.

The beach operator (who may be licensed by local government) can act to directly fulfil some criteria (e.g., provision of beach access for people with disabilities), whereas the fulfilment of others may call for the engagement of the local community and other partners, even the national government.

There are several steps to be taken in order to be able to apply for Blue Flag status. In order for a new country, like New Zealand, to start up a Blue Flag Campaign, a suitable organisation must be identified to carry out the task as national Blue Flag operator (www.blueflag.org). This organisation must be a non-profit, non-governmental, independent organisation and it must have environmental education and protection as its primary objectives (www.blueflag.org). The organisation also needs to have a history of environmental work related to local authorities and also experiences with national initiatives. If there is no suitable organisation, a new national organisation may be set up (www.blueflag.org).

Once an organisation is found (or founded), it must become a member of the Foundation for Environmental Education (FEE) and this means that the organisation

must be structured and operate in accordance with the statutes of FEE, be able to raise the necessary funds to pay the subscription fee, be able to run the Blue Flag Campaign and lastly be ready and willing to participate in the other activities of FEE as well (www.blueflag.org). Once this is done, the FEE member organisation must organise a Blue Flag Workshop and select a national committee. A Blue Flag feasibility study also needs to be carried out before the pilot phase is implemented (www.blueflag.org).

In New Zealand, an interim advisory board has been set up to advise the directors and coordinators on priorities and expenditure to do with the setting up of the Blue Flag Campaign in New Zealand. Three regional workshops have been held in Wellington, Taranaki and Nelson (http://www.feenz.org/).

The local organisation concerned then applies to the National Blue Flag jury to have their local beach accredited with Blue Flag status. If satisfied that all relevant criteria have been complied with, the national jury forwards the application to the international jury (FEE-NZ 2004). The national jury is made up of all relevant stakeholders who are connected to the National Blue Flag Campaign and the international jury makes the final decision concerning applications. How the relevant stakeholders are identified is not clear.

The campaign is a world-wide campaign and beach criteria for countries within a region are all similar. On the other hand criteria for different regions may vary. Where national legislation is stricter on a particular issue, this must be complied with rather than the Blue Flag criterion.

Its criteria (See Appendix 2) include that any information on water quality and the location of sampling points must be displayed on or close to the beach and the responsible authority must be able to demonstrate educational activities relating to the coast (Williams and Morgan, 1995). Adequate refuse disposal facilities, daily beach cleaning where necessary, safe access, provision of clean sanitary facilities, lifesaving equipment/lifeguards and first aid are also required. Control over activities such as driving, dumping and unauthorised camping is obligatory, as is a dog ban where national law allows; otherwise strict dog control must be enforced. It is suggested that drinking water, telephones and facilities for the disabled are also to be provided (Williams and Morgan, 1995).

While the Blue Flag requires compliance with strict 'Guideline' ('G')[3] water quality standards, Seaside Award beaches (another existing European beach award, see section 2.1.2) need only meet the much less strict 'Mandatory' ('I') standards. As a result there are more beaches that have Seaside Award Flags than the European Blue Flag. Water quality is judged on the results of analyses of samples taken throughout the previous bathing season.

Some Blue Flag criteria are imperatives, like the water quality criteria or litter bins in adequate numbers, while others are merely guidelines, such as recycling waste materials. A beach that does not comply with one or more of the imperative criteria cannot be awarded a Blue Flag. Each year the criteria are reviewed and a number of new guideline criteria may become imperative.

The European Union has acknowledged the role that the Blue Flag has played in the successful implementation of the European Bathing Water Directive (see Appendix 1), and the better implementation of national legislation. The interest and support by the national environmental authorities is demonstrated by subsequent investments and improvements in environmental infrastructure such as sewage treatment plants and waste management.

Through the Blue Flag system, coastal water quality has become an economic asset that plays a growing role in the coastal tourism industry, but the entrants also require

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[3] The Guideline and Mandatory standards are set by the European Union (see Appendix 1)

investment in signage and facilities and a considerable amount of resources. However, the campaign has resulted in greater collection and dissemination of environmental information (Font and Buckley 2001).

The Blue Flag campaign is flexible enough to be able to operate at local, national and international levels. Mihalic's (2002) study on Blue Flag beaches in Slovenia illustrates this. The campaign was able to be implemented using input from all levels. At the local level the beach operators and local councils, as well as the local community put in place a land-use and development plan for the coastal zone. The general public were able to participate by sending in submissions as to what kind of development they wished to occur in their particular communities. Organisations such as local associations, local businesses and tourist associations also had an interest in campaigning for a Blue Flag beach in their area. At the national level, the campaign is co-ordinated by the FEEE-S (Foundation for Environmental Education of Europe in Slovenia) office and at the international level the programme comes under the international umbrella organisation known as FEE. The Blue Flag campaign also allows for some degree of community involvement within its education of the public requirements and in the management requirements for the resort beaches (Carl Thurston, pers. comm.).

FEE is now being encouraged to change Blue Flag's image so that it comes to be seen as a tool for progressing integrated sustainable development in coastal areas that is beneficial not only to the tourism industry, but also to local communities. Blue Flag now appears entrenched as the leading beach award, at least in Europe, and only minor modifications to its criteria seem likely in the short term (Morgan, 1999).

The criteria used for determining a Blue Flag beach are based on a limited number of measurable parameters and do not approach coverage of all measurable aspects of the beach environment (Williams and Morgan, 1995; Morgan, 1999). The Blue Flag criteria currently takes into account only 15 of the 49 beach aspects identified by Williams et al. in their checklist (Nelson et al., 2000 – see a review of this checklist in section 2.2.2).

In addition, presently the Blue Flag beach campaign criteria only relate to urban beaches. Attempts at Blue Flag qualification for rural beaches might lead to the installation of facilities at these less developed beaches, which might not be desired by their users (Morgan, 1999).

When the campaign was first established, it showed clearly which beaches were safe to swim in, in a region where many were not. It was taken up widely by both destinations and consumers, and established a public reputation which made it easy to expand to include marinas. The addition of marinas, however, appears to have created some confusion amongst consumers, who have come to treat the Blue Flag logo as a sign of water safe to swim in. This had led to people swimming in marinas, whereas the Blue Flag label for marinas is in fact an environmental performance label, aimed at environmentally concerned boat owners (Buckley, 2001).

A study by House and Herring (1995) showed that only 41 percent of beach users knew that the European Blue Flag indicated that the beach met European Union water quality guidelines. In another study of bathing water quality and its implications on health, only about a third of beach users had a reasonable understanding of the European Blue Flag award criteria and only 11 percent of beach users actually recognised the Blue Flag itself while 7 percent thought that the Blue Flag symbol signified danger (Nelson and Williams, 1997).

There were marked disparities between countries in terms of numbers of Blue Flag beaches in comparison with their length of shoreline and total number of beaches. For example, in 1998 the UK had 45 Blue Flag beaches, approximately 10 percent of the total number of beaches; Germany had 15 Blue Flag beaches (5 percent its total

number of beaches); Denmark had 185 Blue Flag beaches (15 percent its total number of beaches); and Greece had 326 Blue Flag beaches (20 percent of its total number of beaches) (Morgan, 1999). This illustrates the point that the Blue Flag Campaign has not been effective in establishing a comprehensive national rating system.

Not all communities and local authorities may have applied for Blue Flag status, and those beaches that have applied and not achieved it are not identified, nor are those beaches that might have held the award, but lost it due to subsequent negative changes.

However, it does appear that there is a significant level of community support for the award scheme and future research might indicate if these communities become catalysts for the extension of the campaign to other communities. Given the limitations on the criteria used and the emphasis on resort beaches, however, it appears the Blue Flag system is not appropriate in the predominantly rural Waikato context other than to small number of beaches. This does not mean that the system might not be useful for those few beach communities.

2.1.2 Seaside Award

The Seaside Award is a UK award scheme introduced in 1992 and administered by the Tidy Britain Group (TBG), a partly government-funded (by about $4 million), but independent agency campaigning for environmental improvements in many fields of interest. The Tidy Britain Group comes under the umbrella organisation known as ENCAMS (Environmental Campaigns). The Award recognises beaches that are well-managed, clean and relatively safe (www.seasideawards.org.uk).

The awards are valid for one year only and monitoring during the summer months takes place to ensure that all criteria are being complied with. If the monitoring reveals that there has been failure to comply with certain criteria, then the flag must be taken down and may be flown again only when the criteria has been met. The award is promoted via leaflets, press releases, on-site notice boards and display of award flags at awarded beaches. The Seaside Award flag is usually flown in a prominent position in the beach area to advertise the beach's quality rating to visitors (Williams and Morgan, 1995).

The applicant for a Seaside Award can be a local authority, a local parish or private organisation and the application is forwarded to ENCAMS for consideration for an award. The beach is then assessed in the summer period prior to that in which the awards are given and ENCAMS sends the results to a national jury. If ENCAMS finds that the beach may also be eligible for Blue Flag status then they may forward the application to the International Blue Flag Jury. The Seaside Award does have scope for community involvement specifically within the rural beach award (Carl Thurston, pers. comm.).

The Award encompasses and makes distinctions between resort and less developed 'rural' beaches. Resort beaches are in or close to towns and offer facilities such as toilets and cafés; rural beaches are found in remote locations and are not expected to have the same level of supervision (lifeguards) or facilities as resort beaches (Williams and Morgan, 1995). Inclusion of the rural beach category allowed many less-developed beaches that would not be eligible for the European Blue Flag, to qualify for this award. In terms of award criteria, requirements at resort beaches are similar to those for the Blue Flag (high standards of facilities and management, beach cleanliness and water quality). There are 29 such criteria for resort beaches and 13 for rural beaches covering water quality, the beach and inter tidal area, safety,

management, cleansing, information and education (see Appendix 3) (Williams and Morgan, 1995; Morgan, 1999).

Beaches meeting Guideline ('G') water quality standards used to receive a Premier Seaside Award which is equivalent to achieving a Blue Flag Award, but in 1995 the Premier Award was dropped and just the Seaside Award remains today (Williams and Morgan, 1995). Previous judging was on a 'one-off' basis, but from 1996 awards were given as a result of up to three visits during the preceding season (Williams and Morgan, 1995). If a beach fails to meet the criteria, its deficiencies are spelled out in detail and the feedback provided to the applicants (Williams and Morgan, 1995). A beach may be removed from the award if it falls below the standards and criteria set out by TBG.

The House and Herring (1995) study showed that only 27 percent of beach users knew that the Seaside Award Flag indicated that the beach met European Union water quality guidelines. However, Nelson's study showed that less than 1 percent of beach users recognised the Seaside Award Flag (Nelson et al., 2000).

Seaside Award beaches need only meet the much less strict 'Mandatory' ('I') standards in terms of water quality standards, thus in view of the wider range of beaches eligible and the less stringent criteria, more beaches have received Seaside Awards, rather than the Blue Flag award (Morgan, 1999). Furthermore, this award takes into account only 16 of the 49 featured beach aspects in William's et al. checklist (Nelson et al., 2000). However, its distinction between resort and rural beaches suggests that it might be a more useful system than most others reviewed here for application in the Waikato Region.

2.1.3 Solent Water Quality Awards

Established in 1992, the awards are administered through the Solent Water Quality Conference, a consortium of local authorities and interest groups in Hampshire, UK. Its core principles include supporting and complementing the work of local authorities, the Environment Agency and other agencies in protecting and improving the quality of coastal waters for recreational and other human uses, and for flora and fauna (www.solentforum.hants.org.uk). The Award scheme was launched to provide a simple and easy to understand system whereby bathing beaches in and around the Solent area could display the quality of their waters for the public to see. A plaque displaying the award is often placed alongside the results board showing the water quality results of that particular beach and an Award Flag is also flown. The Award is presented annually to beaches that demonstrate good or excellent bathing water quality and since the Proposed Revisions to the European Union Bathing Water Quality Directives came into effect (see Appendix 1), the association has been concentrating on the public information aspect of the revisions and the need to ensure that the public are well informed about whether to enter the water or not (www.solentforum.hants.org.uk).

All bathing waters in the Solent region that are used regularly for bathing can enter the scheme. The criteria for achieving an award are:

- At least one representative sampling point must be selected for each beach
- Mandatory standards of the EU bathing water directive must be met
- The water must not contain any gross pollution by faeces or other sewage-related debris, or suffer from persistent occurrence of oil, tar or a significant smell
- Supporting information, such as water quality results from the previous years must be given (Van Maele et al., 2000).

The scheme supplements the various beach and resort award schemes, including the Blue Flag, which all deal with many other criteria in addition to water quality (www.solentforum.hants.org.uk). Its disadvantages lie in the fact that it does not consider the beach itself and its criteria are restricted to water quality.

2.1.4 Healthy Beaches Campaign

An academically based beach certification programme established by the Florida International University's Laboratory for Coastal Research has become the Healthy Beach Campaign in the USA. The founder of the campaign is Dr. Stephen Leatherman who developed a beach rating survey in 1996 (see section 2.2.5). The campaign's objectives include maintaining high standards of beach management and ensuring that dependable sources of information are available to beach users.

Beaches are evaluated against 60 stringent environmental and service-based criteria (see Appendix 4). The rating criteria include: Environmental Protection Authority (EPA) water quality standards, beach cleanliness, safety, environmental quality and management and auxiliary services.

The National Healthy Beaches Campaign (NHBC) provides the evaluation service for beaches free of charge. Any person may nominate a beach to be evaluated by the NHBC against the 60 criteria and once beaches meet these criteria they become credited as Recognised Healthy Beaches. If the beach managers or local authorities then wish to join the Campaign, they then become Certified Healthy Beaches and commit themselves to maintaining high beach management standards and assuring their beach users of the quality of their beaches.

The National Healthy Beaches Campaign (NHBC) rating is applicable for both resort/urban and rural/park beaches. The criteria for the latter are slightly less stringent than for resort and urban beaches, as they frequently have less facilities and little or no commercial development (http://www.ihrc.fiu.edu).

Volunteer opportunities through beach cleanups are available at most beaches. These are initiated by the communities and organisations themselves, and NHBC's role is to promote and advertise these events to the public.

2.1.5 Green Globe Annual Awards

The Green Globe Annual Awards were established by the World Travel and Tourism Council (WTTC) with the aim of implementing the Agenda 21 principles defined at the1992 Rio Earth Summit. The WTTC executive approved its establishment in March 1994 and it became operational in July of that year.

Originally it was a wholly owned subsidiary of the WTTC, with its Chief Executive also being president of the WTTC. Since 1999, however, it has operated as an independent company overseen by an international advisory council, which comprises representatives from the tourism industry, non-government organisations and environmental consultancies around the world. This reorganisation was accompanied by a renaming, to 'Green Globe 21', and a change in focus, from primarily an environmental education and awareness programme to a formal accreditation scheme, which had been initiated prior to the reorganisation (www.greenglobe21.com).

Its primary objective is 'to provide low-cost, practical means for all travel and tourism companies to undertake improvements in environmental practice'. Its more specific goals include highlighting leading examples of best practice and outstanding progress through Achievement Awards.

The main programme which Green Globe operates is an accreditation or 'certification' programme that applies to both tourism organisations and destinations. The Green Globe 21 Standard has evolved after much research and experience with its application over time and, in April 2001, a new Standard was produced which involved

quantification of actual environmental performance through benchmarking (Griffin and DeLacey, 2002). The latest standard is based on performance criteria which are organised into the following five sections:

- Environment and Social Sustainability Policy
- Regulatory Framework
- Environmental and Social Sustainability Performance
- Environmental Management System
- Stakeholder Consultation and Communication (Griffin and DeLacey, 2002).

There are three stages that a tourism firm or destination must go through in order to become fully certified and become a full GREEN GLOBE participant. The first of these stages is at the affiliate stage where the applicant makes a commitment towards benchmarking and becoming certified. The affiliate gathers information about sustainable tourism practices and principles and prepares an Environmental and Social Sustainability Policy which is submitted to Green Globe (www.greenglobe.org). Below is the affiliate logo:
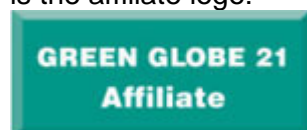
The next stage is the 'benchmarking' stage, under which the Green Globe 21 programme targets major environmental concerns by measuring the environmental performances of companies and destinations in the following nine key performance areas:

- Greenhouse gas emissions
- Energy conservation and management
- Fresh water resource use
- Ambient air quality protection
- Waste water management
- Waste minimization, reuse, recycling (including hazardous substances)
- Ecosystem conservation and management (including biodiversity impact, particularly on habitats)
- Environmental and land use planning, particularly in areas of high social and environmental value; and
- Local social, cultural and economic impacts, in particular, respecting local culture and generating maximum local employment.

The Benchmarked logo is seen below and is only given once the tourism firm or destination has fulfilled the benchmarking criteria.

Once the destination has passed the benchmarking standards and an independent audit has been carried out, the destination is then awarded with the full certification logo pictured below (www.greenglobe.org). This stage also requires the implementation of an Integrated Environmental Management System.

The WTTC has been conducting its annual achievement awards programme since 1996. The awards are open to all Green Globe members and judging is based primarily on the annual reports submitted by members on their own performance over the preceding year. Awards are made at two levels: Distinction Awards for demonstrating outstanding achievement across all action areas and Commendation Awards for demonstrating significant improvements in environmental performance.

The awards possibly represent the most global, cross-sectoral approach to industry self-regulation thus far attempted (Griffin and DeLacey, 2002).

However, its most ambitious programme, relating to the accreditation of destinations involves complexities that include long periods of implementing the programme and take even longer for the effects of the programme to have noticeable effects on improving the environmental quality of the destination (Griffin and DeLacey, 2002). It is also questionable whether a significant proportion of the industry will embrace it because in the short term this depends very much on the perceived benefits of participating, and in the longer term on whether it can be demonstrated that those benefits have been realised and obtained by those who have made the changes (Griffin and DeLacey, 2002). Green Globe members had grown to a little over 650 members by 2002 (Griffin and DeLacey, 2002), which appears low in relation to the overall size of the global tourism industry and number of destinations and may reflect the complex process and cost of attaining the necessary standards.

Another area of concern is whether such certification and eco-label schemes achieve real environmental improvements. Amongst other things, this would depend upon the criteria on which the accreditation is based, the quality and objectivity of the assessment process, ongoing monitoring and enforcement procedures, and the effectiveness of sanctions that might be imposed for not adhering to the required standards (Griffin and DeLacey, 2002). This scheme is different to most of those reviewed here because it is an industry driven system and tends to focus on tourism firms and destinations rather than beaches or the coastal environment. It may have relevance for some Waikato tourism operators and to some high-use tourism destinations.

2.1.6 Clean Beaches Council's Blue Wave Campaign

Clean Beaches Council is a not-for-profit organization devoted to increasing public awareness and volunteer participation in beach sustainability.

The Clean Beaches Council (CBC) is a not-for-profit organisation committed to sustaining America's beaches. Since its inception in 1998, the Clean Beaches Council has developed innovative approaches to coastal management and protection of human health and the environment. The Clean Beaches Council is made of diverse directors and advisors representing a broad group of academic, conservation, business, government and health interests. The core mission of the Council is to promote public

awareness and volunteer participation in sustainability while ensuring a legacy of clean beaches for all generations to come (www.cleanbeaches.org).

A multi-sector national steering committee reviews the Campaign's criteria every two years to ensure that they reflect the latest standards and approaches to sustainable beach management. Blue Wave certification is valid for one year only and the certification season officially starts on Memorial Day, which is in the month of May, and continues through the high-use season (typically the summer season). Beaches fly the distinctive Blue Wave flag upon certification and must have Blue Wave kiosks and boundary markers in areas where there is much traffic on the beach for the entire year. During the high-use season, an inspection takes place at the beach without the prior knowledge of the beach managers or local authorities to ensure that compliance is maintained at all times.

Beach municipalities, local authorities, tourism boards, homeowners associations, chambers of commerce, hotels, resorts and others representing a beach community may apply for Blue Wave certification of their beaches. Every application needs to be accompanied or endorsed by four different sponsors. One of the sponsors needs to be the original applicant, while the others need to be from the government sector, the non-profit or environmental sector, and a business organisation. Upon receipt of the application the Clean Beaches Council staff review the application and carry out a site visit. The CBC's team of scientists then review the findings of the inspection and consult with the community on the findings. If the beach has met the criteria, the beach immediately becomes certified. If it does not meet the criteria, then the Council works with the community to achieve the necessary changes to comply with the criteria.

The criteria for the programme has been created by a group of experts (see Appendix 5a and 5b) and certified beaches pledge to uphold responsible beach management practices in the following areas:

- water quality
- beach and intertidal conditions
- hazards
- services
- habitat conservation
- public information/education
- erosion management

There are 33 criteria for resort beaches and 27 criteria for rural beaches.

Its strengths lie in having rural and urban beach criteria, its consultation phase with the local community and its endeavours to encourage community participation in order that all relevant criteria may be met to gain full certification of the beach. FEE and CBC have signed a memorandum of understanding with the aim of establishing 'a cooperative relationship for the purpose of mutual recognition of each others' organisations and beach programs – with the purpose of cooperating to coordinate and unify the two beach programs over time' (Memorandum of Understanding, FEE & CBC (www.cleanbeaches.org)).

2.1.7 Green Coast Awards

In 1996, the Green Sea Partnership was set up by the Wales Tourist Board and Welsh Water to make the Welsh Coastline "the pride of Europe and capitalise on Welsh Water's £600m capital investment" in improving the quality of coastal waters in Wales (Nelson and Botterill, 2002: 158). The Partnership recognised the rural profile of the majority of Welsh beaches and its unique qualities and tourism potential. The Green Coast Award was conceived out of a conscious effort to highlight the sensitivity of rural beaches and the need to design environmental measures to sustain them (Nelson and Botterill, 2002). The scheme was piloted in 1999 and its main aim is to recognise beaches that comply with European Union Guideline water quality standards and which are also valued for their unspoilt, natural character.

The Green Coast Award, which takes the form of a flag, has been specifically designed to promote and protect rural Welsh beaches that do not have the infrastructure or do not wish to have the necessary infrastructure required to obtain the prestigious European Blue Flag (Nelson and Botterill, 2000; Staines and Ozanne-Smith, 2002). There is an emphasis here on rural beaches with high environmental quality that do not necessarily have the high level of intensive management generally associated with urban beaches (see Appendix 6 for criteria).

The award scheme is managed in Wales by Keep Wales Tidy. The Award is given to beaches that are managed with the involvement of the community, for the benefit of visitors and the environment. It places a strong emphasis on community and environmental activities. Community involvement may include, among others; a Coastcare Group, Beachwatch and Community Councils.

Before any beach can be selected to receive an award, the beach manager must establish that all interested parties have been consulted and that any issues that the parties raise have been addressed and incorporated into the development of a management plan for the beach concerned (Keep Wales Tidy, n.d.). A beach management committee for the local area or region is formed which should include representatives from all interested parties and should also include the operational staff for all beaches under consideration for an award (Keep Wales Tidy, n.d.). After the committee has been set up, the next step involves categorising the area's beaches and identifying which are suitable for certain awards and therefore highlighting future goals (Keep Wales Tidy, n.d.). Once a particular beach has been identified as a potential Green Coast beach, the committee will then consult with the local community to enlist their support before any progress can eventuate (Keep Wales Tidy, n.d.).

A guardianship scheme involving local communities and groups is an inherent part of beaches identified as Green Coast Award recipients. This scheme typically involves local groups, councils, schools or individuals regularly monitoring the beach and undertaking beach improvement projects such as providing access to the beach and dune protection (Keep Wales Tidy, n.d.).

Nelson and Botterill (2002) found that beach users had very little knowledge and understanding of beach award schemes, in particular the Green Coast Award, and only 22 percent of the sample population stated that they had heard of the award and a similar low percentage (11 percent) also stated that the award was important in beach

selection. Only 11 percent of the respondents to the survey understood the qualification criteria of the award.

Furthermore, Green Coast Awards are presented on the basis of retrospective water sampling results from the previous year and this method is not that effective when one considers the point that water quality conditions vary from year to year (Nelson and Botterill, 2002).

Nevertheless, Nelson and Botterill's (2002) study revealed that although the Green Coast Award might not be well recognised by beach users (22 percent) the Green Sea Partnership had accurately identified the needs of the consumer, and this had an indirect impact on the experience of the beach user. In other words, the users do not need to be aware of the programme's existence or understand it for them to benefit from it. This indirect impact, of improving the beach user's experience, needs to be sustained to encourage repeat visits for the benefit of the local tourism industry. A high degree of correlation also existed between what beach users believed to be important beach management issues and their perception of the high level of management of those issues on the case study beaches.

All case study beaches were found to offer very high environmental standards, suggesting that management measures introduced by the Green Coast Award have greatly improved beach quality (Nelson and Botterill, 2002). The consultation aspect of the Award is also a strength that allows for issues that are raised by the local communities to be addressed effectively. The Award's focus on rural beaches instead of urban beaches is another strong point that ensures the protection of the natural character of the Welsh coastline.

2.1.8 Green Flags for Greener Hotels

The project 'Green Flags for Greener Hotels' was carried out within the framework of the European Commission's LIFE 1998 Programme and the project lasted 26 months from 1998 to 2000. The project's main objective was to establish environmental measures and standards that a hotel should aim to attain in order to be awarded with the 'Green Flag' environmental label. The scheme had general specifications which included that it make use of already existing eco-labels, that it employs a phased approach, that it be flexible enough to deal with differences in regions and above all that it be linked to the wider process of sustainable tourism (European Commission, 2001). The 'Green Flags' core principles include:

- It being voluntary
- Seeking objectivity and transparency
- Seeking constantly to update the consumer/client
- Aiming at a Pan-European application

Hotel evaluation and the awarding of labels were achieved in two different ways. They can be awarded by a jury decision where checking is conducted afterwards on a random basis with on-site visits or they can be rewarded following the on-site inspection by a referenced organisation (European Commission, 2001).

The approach of the hotel sector in Greece involved three stages. The first involved a scoping of the hotel's main operations; the second stage was identification of its main environmental issues and ways to minimise the detrimental environmental effects, and the final stage involved compiling a questionnaire (based on the issues identified in the second stage) in order to determine the final award criteria (Chatziathanassiou et al., 2004).

The scheme distinguishes between mandatory and optional criteria in the award criteria for the 'Green Flags' label (Chatziathanassiou et al., 2004). The mandatory criteria are those considered to be most important for all the hotels, and they aim to secure a minimal environmental compliance based on a core set of requirements, such as

energy efficiency, water and liquid waste, indoor climate (acoustic, light, thermal, indoor air quality), rural/urban planning, integration in landscape and waste management and the use of recycled materials and so forth (see Appendix 7) (European Commission, 2001). The optional criteria are of lesser importance and aim to overcome the obstacles and weaknesses that were identified during the environmental reviews, and to encourage environmental improvements by the hoteliers.

The value of implementing such a label scheme is recognised by many including the OECD for its good intentions and its promotion of sustainable actions as well as its voluntary nature. The scheme can be adopted by both large and small hotels and that is why minimum standards are used in the criteria, as this enables smaller hotels to fulfil the criteria. And yet on the other hand, hoteliers may be reluctant to invest in such initiatives because of the cost of setting up environmentally sound practices and procedures (Chatziathanassiou et al., 2004). The environmental reviews for the 'Green Flags' scheme demonstrated 'that hoteliers tend to adopt only low-cost methods and practices and that there is weak monitoring of environmental issues, limited use of environmentally friendly materials and a random priority for end-of-pipe solutions' (Chatziathanassiou et al., 2004:265).

Weak policy frameworks around such initiatives and the lack of infrastructure due to the special problems of particular settings - in this case referring to the islands of Greece - may hinder the successful implementation of such programmes (Chatziathanassiou et al., 2004). There may also be deficiencies in inspection of environmental matters by relevant local authorities. The hospitality industry has often responded to environmental issues, but mainly in those areas where there are direct financial benefits to them and where they are favoured by the fiscal and/or legislative requirements of the country (European Commission, 2001; Chatziathanassiou et al., 2004). The programme does not necessarily relate to beaches but it is a scheme similar to the 'Blue Flag' procedure for seaside resorts (European Commission, 2001)).

2.1.9 Local Agenda 21 and the European Eco-Management and Audit Scheme (EMAS)

The Local Agenda 21 (LA21) was born out of the Earth Summit in 1992 and the 1994 Aalborg Charter in which local communities worldwide committed themselves to implementing sustainable development plans within their own regions (www.europa.eu.int). The European Eco-Management and Audit Scheme (EMAS) was born out of attempts to implement LA21 and was originally developed to aid in improving the environmental performance of industrial companies and has been extended in scope to include organisations providing services, making it possible to apply EMAS to local authorities as well (Campillo-Besses et al., 2004).

Both EMAS and LA21 involve an initial environmental review or eco-audit and consensus on a conceptual framework as well as a feedback process and public participation, although LA21 has a more participative approach and EMAS is more systematic (Campillo-Besses et al., 2004). EMAS also deals only with environmental aspects, while LA21 promotes sustainable development in environmental, economic and social spheres (Campillo-Besses et al., 2004).

The two schemes can be seen as two parallel processes allowing with potential for integration. The participatory nature of LA21 requires the involvement of all stakeholders, which includes the local population, and the inclusion of aspects of a local social and economic nature. In contrast, EMAS involves a more systematic approach and exercises more independent and objective controls on the process (Campillo-Besses et al., 2004). Advocates of EMAS argue that environmental management systems (such as EMAS) use well-defined methods and are often subject to an external registration process in which the obligation is on the local authority 'involved in the scheme to introduce real and significant changes in its organisation's environmental performance' (Campillo-Besses et al., 2004:221).

For a local authority the first step in the scheme involves an 'Environmental Review' where the quality of the environment is assessed and any existing problems and risks are identified (Campillo-Besses et al., 2004). Throughout the whole process, public participation is actively encouraged. When the scheme was implemented in Sitges, Spain, this stage also included the setting up of a Sustainability Commission and a Sustainability Committee made up of representatives from the general public (Campillo-Besses et al., 2004). At this stage agreement is reached between participants over the structure of these various committees and the various responsibilities are made clear. The programme also requires the definition of specific goals, a series of indicators and benchmarks for each environmental aspect, the drawing up of a work plan, and the introduction of the corresponding control and correction mechanisms, in order to facilitate monitoring of the system (Campillo-Besses et al., 2004). This is followed by an internal as well as an external audit undertaken by authorised auditors that eventually leads to validation of the EMAS programme and registration of the local authority. Therefore, the ultimate objective is to establish a system of continuous improvement of environmental performance within the local authority based on an initial statement of a philosophy of sustainability (Campillo-Besses et al., 2004). Transparency, public participation and an external audit are essential requirements in order to acquire registration in EMAS (Campillo-Besses et al., 2004).

Public participation is ensured through what is known as sectorial and neighbourhood committees. Sectorial committees include representatives from various organisations, associations, unions etc. who meet with local council staff to discuss topics of importance to them. The main role of sectorial committees is 'to discuss and reach decisions on topics that directly affect their sector, and they must also prepare topics of discussion at the Neighbourhood Committees' (Campillo-Besses et al., 2004:227). Neighbourhood committees are then provided with these topics and are encouraged to enrich and add to the debate and to 'identify environmental priorities through consensus' (Campillo-Besses et al., 2004:227).

The support given by the local authorities as well as the community showed that they were committed to sustainability and the scheme offered the opportunity to 'redefine and reorientate the development model' (Campillo-Besses et al., 2004:246). The attaining of an eco-label such as EMAS certification may also be highly valued by the tourism sector in the area. However, since the programme is still in its early stages of implementation, an evaluation of its successes may not be possible for several years. Campillo-Besses et al. (2004:246), in their study of Sitges identified one of the main difficulties of the project was the doubts expressed 'by the general public about the true effectiveness of the process of participation' as they lacked confidence in the municipal authorities' ability to convert their proposals into real actions.

In many respects LA21 and EMAS appear to be substitutes for the Local Government and Resource Management Acts' processes and to be operating at a different level than the beach rating systems that are the focus of the current research. They have been addressed here primarily because they appear in various publications and, for the sake of completeness, it was considered appropriate to report on them. They do not appear to offer anything significantly advantageous over existing Waikato approaches.

2.2 Rating Systems

2.2.1 Costa Rica's Rating System

Chaverri devised a rating system to identify beaches suitable for governmental/private tourist development in Costa Rica under the authority of the Marine and Terrestrial Act (Williams and Morgan, 1995).

The system consisted of up to 113 factors, split into two groups of positives and negatives and each given a score between zero and four, with the final rating score for

the beach obtained by subtracting the sum of the 'negative' scores from the sum of the 'positive' scores. The factors comprised six groupings and these were water, beach, sand, rock, general beach environment and the surrounding area (Williams and Morgan, 1995).

However, no attempt was made to attribute objective values to scores for any of the factors, so that the score given to a beach for any factor was based purely on the subjective judgement of the particular assessor and that could lead to variation between beaches (Williams and Morgan, 1995; Van Maele et al., 2000; Micallef and Williams, 2004). There was also no attempt made to assess the importance attached by beach users to any of the factors in the checklist, to assess which factors were of importance for various types of beaches (apart from a differentiation between sand and rock areas), or to attach weightings to the various factors (Williams and Morgan, 1995; Micallef and Williams, 2004). The fixed division of factors into 'positive' and 'negative' categories could also be considered to be subjective and of uncertain validity (Williams and Morgan, 1995; Van Maele et al., 2000).

2.2.2 Williams et al., Checklist

Williams et al., (1993) designed a checklist intended for beach users, based on the views of a range of international coastal experts, to assess beaches in terms of 50 physical, biological and human parameters (Williams and Morgan, 1995; Morgan, 1999).

The physical parameters included beach width, beach material, beach condition, beach softness, water temperature, air temperature, number of sunny days, rainfall amount, bathing area bottom material, wind speeds, wave size, wave number, underwater beach slope, currents – longshore, rips, beach colour, tidal range and beach shape (Williams and Morgan, 1995).

Six hundred and fifty beaches in the USA, 182 in the south-west peninsula (UK), and 28 in Turkey were evaluated in terms of these characteristics to produce a value on a percentage rating scale (Williams and Morgan, 1995; Morgan, 1999). The beaches were scored for each parameter on a scale from 1 (poor) to 5 (good). This technique has been utilised for many beaches, some of the ratings found being: Bondi Beach (Australia) 77%, Porthmeir (Cornwall, UK), 86%, Kapula (Hawaii, USA) 92%, Pikes Beach (Long Island, USA) 69%. Beaches that get a higher score are considered to be higher quality beaches.

The authors soon saw the need to modify the checklist as the result of further research on beach users' preferences (Williams and Morgan, 1995). It was assumed in the checklist that wide beaches were preferable to narrow, but work in 1993 suggested that some people preferred to be on a large expanse of sand, while others favoured secluded situations (Williams and Morgan, 1995; Morgan, 1999). The 'differences in beach width at high and low tide (a major factor in macrotidal areas such as western European coasts) were not considered' in the initial checklist (Williams and Morgan, 1995:32). The preferences of beach users on sand colour were assumed by coastal experts rather than investigated (Williams and Morgan, 1995).

Many beach environment aspects were categorised as good or bad without considering the varying preferences of different types of beach users, and various uses of the beach environment (Williams and Morgan, 1995; Morgan, 1999). For example, the size of breaking waves (a conflict between requirements for surfing and safety of children's bathing), beach shape (straight or pocket), density of beach users (some like isolation, others a crowded, 'busy' beach) and the degree of commercialisation (Williams and Morgan, 1995).

Quantitative values were ascribed to some factors, but scale values and intervals were often arbitrary and attributed without reference to the preference of beach users (Williams and Morgan, 1995). It was a highly subjective process and no weightings

were attached to factors (Morgan, 1999). The differing requirements of beach users and of resort and rural beaches were not taken into account and there was no attempt at resolving the problem of conflicting views and preferences of visitors to different types of beaches (Williams and Morgan, 1995). The checklist was also considered to be quite lengthy and therefore tedious for beach users to fill out and no effort was made to group together related parameters. For example, issues such as lifeguards, sea state and presence of rip currents could have been grouped under a single heading of 'safety issues' (Micallef and Williams, 2004). Despite these weaknesses, the checklist raised certain issues that needed to be addressed by beach awards in order that they could benefit all beach users and fulfil their needs. It also recognised that beach users needed to have an input into the scheme in order for it to be a success and that all the aspects of the beach environment should be assessed.

2.2.3 University of Glamorgan, UK – Beach Quality Rating Scale

Work was undertaken by the University of Glamorgan (UK) to assess beach quality in terms of beach user perception in order to produce a percentage rating scheme which would enable the public and coastal managers to compare beaches (Williams and Morgan, 1995). The results from research undertaken between 1991 and 1993 strongly suggested 'that people with different personalities and socio-demographic variables had different requirements for the beach environment and preferred to visit different types of beaches' (Williams and Morgan, 1995:32). This posed a problem as far as beach ratings were concerned, but was believed able to be overcome 'by dividing beaches into a number of categories on the basis of degree of commercialisation (presence/absence of particular facilities)' (Williams and Morgan, 1995:32).

A questionnaire was chosen as the survey basis for determining the preferences and priorities of beach users at various beach types and to establish weightings of the various factors incorporated in the Beach Quality Rating Scale.

The task involved two main stages. The first involved assessment of the differing preferences for various beach features, facilities and attributes of visitors to different types of beaches in order to provide a subjective weighting to the various factors in the Beach Quality Rating Scale. In Wales, '50 beach users were given questionnaires at each of 30 randomly selected beaches in order to obtain a statistically valid sample (minimum 150) of persons preferring to visit each of 4 identified types of beaches (ranging from the largest and most highly developed resorts to remote, undeveloped beaches)' (Williams and Morgan, 1995:32).

The second stage involved the checklist for the Beach Quality Rating Scale which contained classifications and categories of 48 beach aspects which closely corresponded with those in the questionnaire (Williams and Morgan, 1995). The beach aspects listed in the checklist covered all aspects of beaches shown to be of significance to beach users in South Wales including others suggested by a variety of coastal experts or appearing in previous beach checklists (Williams and Morgan, 1995). As many beach aspects as reasonably possible were allocated classifications based on quantifiable values and the weighting and scoring of the various beach aspects on the checklist was produced by an analysis of the responses from the questionnaires (Williams and Morgan, 1995).

Three beach aspects were assessed indirectly from collected data and these were:

- Beach safety for bathing. This was assessed from beach morphology and typical wave height and a score was calculated by using a table developed by the University of Sydney.
- Beach climate. Data on rainfall, temperature, sunshine hours and wind speeds for the officially defined European Community Bathing Season (May-September) was processed to produce a 'Beach User Climate Index Value' which was a modified version of Mieczkowski's 'Tourism Climate Index'.

- Beach landscape and aesthetics. A score was given to each beach (Coastal Landscape Aesthetic Quality Score), based on assessments made by a panel of coastal managers (Heritage Coast and National Park Ranger, etc) of a video taken of the beach. The film was made by panning a video camera through 360 degrees from a point near the centre of the beach, so that views from the beach in all directions could be assessed (Williams and Morgan, 1995:32).

2.2.4 Beach Classification for the Maltese Islands

This beach classification system, specifically designed for the Maltese Islands was developed by Anton Micallef and Allan Williams. The project was commissioned by the GAIA Foundation as part of the European Union's LIFE funded project 'Integrated Management of Specially Protected Coastal Areas in Malta' (Micallef, 2003).

The Maltese Bathing Area Classification System considered five bathing area parameters (in order of priority) on safety, water quality, facilities, beach surroundings and litter (Micallef, 2003; Micallef and Williams, 2004). The choice of these five parameters was determined on the basis of their high rating by beach user preferences and priorities and frequent consideration in beach management guidelines, beach rating and beach award systems in the literature, as well as the information gathered by beach user questionnaire surveys (Micallef, 2003; Micallef and Williams, 2004). The importance given to such parameters by well-established beach quality award systems such as the European Blue Flag Awards was also taken into account.

This classification system involved the development of a beach register that was designed to address the needs of management by providing data that related to the bathing area's surrounding environment, accessibility, facilities, safety parameters, shore type and beach material, litter, occupancy rates, bathing zone characteristics, presence of sensitive areas and water quality (Micallef and Williams, 2004). The purposes of a beach register is to provide an effective means by which bathing-area related resource inventories can be compiled to identify land-use capabilities best suited to individual beaches and to provide data on which bathing area quality may be determined (Micallef and Williams, 2004).

The classification system adopted a proposal by WHO and the United States Environmental Protection Agency for monitoring and assessing recreational water quality. The WHO/USEPA system focuses on a single group of issues (health risks) although 'the latter are related, in a very innovative manner, to a combination of microbiological indicators of faecal contamination and an inspection-based assessment of sustainability (to such contamination) of the bathing area under review' (Micallef and Williams, 2004:226). This addressed concerns that existing schemes relied on water quality data that only represented a single moment in time while the quality of waters could change within short periods (Micallef and Williams, 2004).

The bathing areas were classified as resort and non-resort, with the resort beaches representing areas where recreational use value far exceeded those of conservation and these areas commonly had hotels, restaurants, and related recreational amenities (Micallef, 2003). The Bathing Area Classification System included an award system ranging from one star for beaches faring quite low in scale to five.

Following application of the Bathing Area Classification System managers found it 'a powerful tool to identify, through the five sub-rating schemes, those areas where priority management action should be focused' and where intervention by management could take place (Micallef and Williams, 2004:237). The scheme was able to contribute to overall beach user safety and assisted local management in selecting issues requiring priority intervention not only in terms of improvement, but also through monitoring (Micallef, 2003).

It provided 'beach users with an opportunity to make a better-informed choice of bathing areas' through the star awards and provided 'decision makers with a tool to

better gauge the quality of their bathing areas and the necessary improvements for their upgrading' (Micallef and Williams, 2004:238).

2.2.5 Leatherman's Beach Rating Scheme

A beach rating survey was designed by Stephen Leatherman, assisted by fellow academic Allan Williams, in 1996 to enable an objective appraisal of some of the major public recreational beaches in the United States. About 650 beaches were assessed nationwide on the basis of 50 criteria and a sliding scale was used to quantify the beach quality factor (Leatherman, 1997). This checklist is essentially similar to the original developed in 1993 by Williams et al., and is still in widespread use in the United States for beach quality assessment by the Healthy Beaches Campaign (Morgan, 1999).

A series of factors were used to provide a quantitative comparison of the various beaches (Leatherman, 1997). For each of the 50 factors there was a 1 to 5 ranking, with 5 reflecting the most positive attributes and 1 the most negative (Staines and Ozanne-Smith, 2002). The factors that were considered in this analysis were of three types: physical, biological and human use and impacts (Leatherman, 1997).

The survey was designed to reflect general beach usage associated with swimming water as this was seen as being of primary importance (Leatherman, 1997). The study revealed that undeveloped beaches scored much better than overdeveloped and overcrowded urban resort beaches and as a result a profile was able to be prepared for each beach based on the 50 factors evaluated (Leatherman, 1997).

After the study was completed, colleagues of Leatherman suggested that the beach rating scale had a subjective component in that Leatherman rated white and pink sand on beaches most highly whereas grey sand was assigned the lowest rating (Leatherman, 1997). Others also pointed out that equal weighting was given to all 50 factors, but in fact some are more important than others (Leatherman, 1997). Another weakness that was identified with this scheme was the rating system made assumptions about the desirability of attributes without determining whether these assumptions actually accorded with the preferences of beach users (Staines and Ozanne-Smith, 2002).

2.2.6 Beach Guides

Beach guides take the form of books, booklets, pamphlets and websites and often are a very user-friendly method of providing information about beaches. They are able to present a potentially large array of information about beaches. Often these beach guides still rely on some form of rating system to determine which beaches are of excellent quality and which beaches should feature in their guides. Some develop their own rating system.

Many of the beach guides face challenges of acquiring accurate and up to date information, and difficulties in delivering the information to users while ensuring that the guides are user-friendly (Staines and Ozanne-Smith, 2002). An extensive guide covering all aspects of beach environments, while possible to be produced, could result in a huge volume that may be too expensive and large to use easily. Smaller guides are conveniently cheaper and easier to use but the information needs to be presented very concisely and distribution to users may be a challenge (Staines and Ozanne-Smith, 2002).

Beach guides when presented electronically, via a website, have the potential to tackle some of the challenges. A large amount of information can be presented in interesting and easy to use formats, relatively cheaply with easy delivery to those who have internet access. A limitation of this approach is that not all beach users have access to the internet, and even for those who do, the lack of portability may still present obstacles (Staines and Ozanne-Smith, 2002).

2.2.6.1 Good Beach Guide

The Good Beach Guide is published annually by the Marine Conservation Society, a UK environmental organisation (NGO) working to safeguard the marine environment (Williams and Morgan, 1995; Morgan, 1999). It receives sponsorship for the Guide from Visit Scotland (Scotland's National Tourism Board), the RNLI (Beach Lifeguards) and the Crown Estate.

Two forms of beach information are available. Firstly, beaches are graded on the basis of their compliance with water quality criteria. The gradings are (from highest to lowest):

- Recommended (Sandcastle icon) – minimum sewage contamination risk
- Marine Conservation Society guideline pass (mcsG) – affected by sewage pollution under certain tide conditions or heavy rain
- European Union guideline pass (G) – fail EU mandatory test 5% of time
- European Union mandatory pass (P) – pass EU mandatory test but substantial pollution risk
- European Union mandatory fail (F) – contaminated (Staines and Ozanne-Smith, 2002)

Secondly, a range of other information is also included in the guide and these consist of beach descriptions, bathing safety, litter management and cleaning, beach facilities, seaside activities, wildlife and walks, getting to the beaches, parking, the availability of public transport and tourist information contact details. The web-based version of the guide includes an interactive map which links up to the information pages for a particular beach as well as displaying Ordinance Survey maps for the area surrounding the beach (www.goodbeachguide.co.uk).

Beaches are recommended on the basis of a high standard of water quality and a low probability of contamination from sewage (Morgan, 1999). In order to be recommended, a beach must achieve a 100% pass of Mandatory Standards set out in the EU Bathing Water Directive (Morgan, 1999). Eighty percent of samples taken during the bathing season (15 May to 30 September) must pass the Directive's Guideline Coliform standard and 90% must pass the Guidelines Faecal Streptococcus standard (Morgan, 1999). There must be no sewage outfalls with low treatment standards close to the beach, bathing must be safe and there must not be excessive marine litter or sewage related debris present at the time of inspection (Morgan, 1999).

The Marine Conservation Society divides bathing water quality into 5 classes and the minimum standard that a beach must reach for recommendation is the '3 dolphin' standard. Beaches are only recommended and fully described in the Good Beach Guide if they qualify for at least 3 'dolphins'. Several beaches reaching the '4 dolphin' standard for water quality can miss out on recommendations because of the following:

- Insufficient information
- Adjacent sewage outfall/storm water outlet
- Dangerous bathing conditions
- Difficult access
- Unsuitability for bathing e.g. rocks
- Being in an environmentally sensitive area
- Not featured on the advice of the local tourist authority
- Adverse reports in newspapers

- Marine litter/reported sewage related debris

So additional criteria may also be taken into account in order for a beach to be featured in the Guide (Williams and Morgan, 1995). The Guide is promoted via publicly available written and broadcast media (Williams and Morgan, 1995).

The Society also carries out Beachwatch beach cleaning projects, in association with environmental organisations such as Friends of the Earth and Greenpeace, and these help to deal with gathering information on litter (Williams and Morgan, 1995).

The system's disadvantages lie in the fact that judging is based on only one main measurable parameter, water quality. The data are obtained from water analyses taken every week during the UK bathing season by the National Rivers Authority (NRA) – which is the UK Government 'watchdog' on these matters (Williams and Morgan, 1995).

2.2.6.2 Short's Surf Beach Classification

Produced as part of the Australian Beach Safety and Management Program by Surf Life Saving Australia and written by Andrew Short, the guide provides descriptions and assessments of 560 of Victoria's beaches.

Each beach review contains information on matters such as the presence of patrol services, beach hazard ratings, beach type, length of beach, description of beach and surroundings, bathing, surfing and fishing, and a brief summary of facilities and attractions (Staines and Ozanne-Smith, 2002). Short's beach register developed into a manual for beach surf life-saving services in Australia and the objective of such a technique is to identify improvements of service through increased efficiency (Micallef and Williams, 2004).

Some of the beaches listed in the guide are also accompanied by maps showing the main morphological and environmental characteristics of the beach which can be producing hazards such as deep water, the presence of rips and currents and strong waves (Staines and Ozanne-Smith, 2002). These ratings are 'subject to modification when wind hazards are present and variations in wave height' (Staines and Ozanne-Smith, 2002).

The guide is suitable for dedicated beach enthusiasts but may be less so for the average beach goer (Staines and Ozanne-Smith, 2002). The book is relatively large and expensive and may be too technical for the average beach user and has only limited information about beach facilities (Staines and Ozanne-Smith, 2002). This work by Short (1993) is also based largely on beach-associated hazards and is thus also quite restricted in the parameters that it discusses. For example it does not go into detail about the presence of facilities and amenities and the bathing quality of the water (Micallef and Williams, 2004).

2.3 Competitions

2.3.1 Keep Australia Beautiful Clean Beach Challenge

The Keep Australia Beautiful National Association (KABNA) was established in 1971 and it initiated the Beach Challenge programme in Queensland in 1998 that was adopted by New South Wales and Victoria in 2003. Its design and implementation

follows the apparently successful approach of the long-running Tidy Towns programme, another KAB initiative.

The Australian Clean Beach Challenge began as a way of recognising the work undertaken by local communities to protect and maintain Australia's beaches (www.keepaustraliabeautiful.org.au). The programme is aimed at helping to keep Australia's beaches litter free and encouraging cooperation between local governments and communities.

The competition involves a 'play-off' between the State finalists from each Clean Beach Challenge in Queensland, New South Wales and Victoria. These finalist beaches compete for the title of Australia's Cleanest Beach, as well as eight Outstanding Accomplishment Awards:

- Resource Conservation and Waste Management Award
- Friendliest Beach Award
- Litter Prevention Award
- Youth Legends Award
- Community-Local Government Partnership Award
- Protection of the Environment Award
- Community Action Award
- Beach Spirit Award

(www.keepaustraliabeautiful.org.au).

Keep Australia Beautiful judges take into account every 'beach's geographic, environmental and economic circumstances, and assess how efficiently and effectively the community uses the resources available to it against a range of criteria, including tidiness and litter abatement, visitor friendliness and hospitality, fauna and flora management activities, community interaction, youth activities, resource conservation and waste management, and local government leadership within a community' (Staines and Ozanne-Smith, 2002:74)

There is a lot of potential for community involvement, including youths, and this aims to lessen vandalism by encouraging high youth involvement. The community is also encouraged to participate in joint activities with local authorities. The Community-Local Government Partnership Award specifically looks for local councils that are motivating and educating their communities and taking a lead role in initiating sustainable communities and environments. There is consultation and dialogue between the community and the local council but it is often the council that is taking the lead role.

The possession of a beach award could also provide beach goers with some indication of the environmental standard of the beach, which may be useful in determining which beach to visit (www.keepaustraliabeautiful.org.au). The competition only occurs in cases where competent, recognised data is available and ongoing compliance with Australian water quality standards for ocean bathing takes place (www.keepaustraliabeautiful.org.au). The fact that they are only awarded to a small number of beaches across States also limits their usefulness (Staines and Ozanne-Smith, 2002).

3   Summary

In reviewing the literature we have developed a set of descriptive criteria against which to summarise the various award and rating systems (Table 1). The assessment of these systems is subjective, but provides a guide to the content and coverage of the various strategies in a more readily accessible format and is indicative of their strengths and weaknesses (i.e., through the criteria that they utilise).

Table 1: Criteria Table showing various beach awards/rating schemes

No	Beach Award/Rating System	Urban Beaches	Rural Beaches	Water Quality – Mandatory 'I' Standards	Water Quality – Guideline 'G' Standards	Environmental Education & Information	Environmental Management	Safety	Services & Facilities	Beach Cleanliness	Community participation/involvement	Physical Features of a Beach	Biological Features of a Beach	Human Features of a Beach
1	Blue Flag Campaign	✓		✓		✓	✓	✓	✓	✓				
2	Seaside Award	✓	✓		✓	✓	✓	✓	✓	✓				
3	Solent Water Quality Awards			✓										
4	Healthy Beaches Campaign	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓
5	Green Globe Annual Awards					✓	✓							
6	Clean Beaches Council - Blue Wave Campaign	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7	Green Coast Awards		✓		✓					✓	✓			
8	Green Flags for Greener Hotels					✓	✓		✓					
9	LA21 and EMAS					✓	✓		✓		✓			
10	Good Beach Guide			✓		✓		✓	✓	✓	✓			
11	Surf Beach Classification, Australia – Short							✓	✓			✓		
12	Costa Rica beach rating system - Chaverri					✓	✓		✓			✓	✓	

No	Beach Award/Rating System	Urban Beaches	Rural Beaches	Water Quality – Mandatory 'I' Standards	Water Quality – Guideline 'G' Standards	Environmental Education & Information	Environmental Management	Safety	Services & Facilities	Beach Cleanliness	Community participation/involvement	Physical Features of a Beach	Biological Features of a Beach	Human Features of a Beach
13	Williams et al., checklist				✓			✓	✓	✓		✓	✓	✓
14	University of Glamorgan, UK – Beach quality scheme 1995	✓	✓				✓	✓	✓	✓	✓	✓	✓	✓
15	Beach Classification – Maltese Islands	✓	✓	✓			✓	✓	✓	✓	✓	✓		✓
16	Leatherman's Beach Rating Scheme	✓	✓		✓		✓	✓	✓	✓		✓	✓	✓
17	Keep Australia Beautiful Clean Beach Challenge				✓		✓			✓	✓		✓	

4 Conclusions

Rating systems are attempts to simplify the complexity of beach environments to meet the needs of particular target audiences. The purpose of a beach award or rating system is therefore fundamental to its design. There is no 'off-the-shelf' system that could immediately be adopted from overseas for the Waikato Region and none that would not be subject to significant critique. However, there are useful pointers and models on which to build a community, regional or national system for New Zealand.

The review suggests, for instance, that a common characteristic of most award and rating systems is a desire for safe bathing and this is primarily underpinned by scientific data on water quality. Such water quality rating systems are usually developed by an external scientific body, with some form of centralised authority setting the guideline. Water quality assessments may be considered a bottom-line for beach rating systems.

Where community involvement is sought, perhaps as part of a community education programme, visual pollutants such as litter and rubbish may become more important. One-off educational campaigns can incorporate competitions and awards.

If the orientation is more towards marketing or promotion of an area to attract more tourists, the presence and quality of facilities emerge as key variables. Rating systems that focus on tourist attraction face the difficulty of how to include beaches that are less-developed and more pristine. This has led to attempts to create categories that separate less-developed conservation or rural beaches from those of urban areas or places where there are significant tourist facilities.

Attempts at developing more participatory systems based around beach users' preferences face the problem of the differentiated perceptions and diversity amongst beach and water users. They are usually applied from the perspective of an outside assessor or surveys of beach users. The degree to which these surveys are representative of local communities or of non-local or non-repeating tourists can affect the usefulness of such surveys.

The funding of beach rating or award systems depends on the purpose of the system. Those that tend to attract private funding are those that have potential spin-offs in the attraction of more tourists to the areas. Those designed for community education or involvement in sustainable management, tend to fall into the publicly funded category, occasionally with support from a charity. Many of the rating systems have been developed by academic researchers and most of these have been tested for relevance, refined and picked up by authorities. Some of these are self-critically aware (e.g., Leatherman's) and others (e.g., Short's) are designed for a particular type of activity or concern (e.g., beach hazards) and may not be readily adapted to other uses. They provide a useful basis for developing appropriate systems for New Zealand.

This review found few studies available on the perceptions of beach users' towards beach award/rating systems. Studies to date have shown low levels of awareness and understanding of various beach award/rating systems including understanding of the criteria behind the accreditation.

This does not mean, however, that the beach users and the local community have not benefited from the beach quality rating in the sense of enhanced community or tourist senses of well-being or satisfaction with the beaches relative to those without high quality ratings. There do not appear to have been rigorous studies of the degree to which a community's sense of well-being might have been positively (or negatively) affected by its beach gaining certification as of high quality. There also appears to be no research on the degree to which users of online or guide book rating systems have altered their choice of beaches as a consequence of the beach awareness.

There has, perhaps, been an overemphasis on the tourism/market values of rating systems rather than the environmental education/awareness potential of such systems on the immediate community. However, some research suggests that the low rating of a beaches quality may lead to acceptance of lower environmental standards and practices rather than provide a spur for improved environmental performance.

In the Waikato Region, beaches are relatively rural comparative to the European settings that rating systems have been designed for. Any rating system would need to consider the suitability of criteria for such beaches or the potential to have no rating system applied. It would seem most appropriate to consider those rating systems that included some form of categorisation based on the separation of 'rural' from 'urban' beaches if the intention is to develop community buy-in, education and action to sustainably manage the variety of beach environments.

New Zealand has standard water quality grading systems and standards that could be drawn on to underpin beach water quality assessment and monitoring, but additional factors relevant to the New Zealand situation would need to be custom-designed for the Region/nation to reflect New Zealand policy requirements (e.g., in relation to public access and Maori issues), to address issues already identified in existing systems as problematic, and to reflect cultural preferences that might differentiate New Zealanders preferences for particular coastal environments from those of tourists and other nations' cultures. Given the high level of tourism in New Zealand, it would seem advisable that such a system was able to be linked to international standards, if practicable, to achieve buy-in of business/tourism sectors and ready interpretation by overseas visitors. Given the high use of the Region's coastal areas by people from outside the Region, and the use of other regions' beaches by people from inside the Waikato Region, it seems appropriate for the Region to work towards an approach that could be linked nationally to other settings and other New Zealand work on beach ratings, possibly as part of a broader, community education programme in sustainable management.

A nationally consistent approach tends to undermine the extent to which the approach can be community-driven unless community consultation is included in its development. However, the overseas' approaches largely use rating systems developed independently from the communities and then leave it to the communities to decide to buy-in to their preferred rating or accreditation system (as in the UK Seaside, EU Blue Flag, US Blue Wave and Healthy Beaches Campaigns, or Welsh Green Coast programmes). This buy-in approach enables community choice. However, it is important to note that most rating systems are combined with campaigns driven from particular interest angles. If the Waikato Region establishes or adapts a particular rating system, consideration needs to be given to whether this would be incorporated into existing public awareness campaigns or whether a new specific campaign might be appropriate to get community buy-in. Such buy-in might be facilitated by beach, stream and land-care groups who are accustomed to drawing on outside expertise and models or tools to assist them with their local issues. Such an approach would fit well with the 'care' approach and for some it could add impetus, a new goal or vision to work towards that integrates previous care group work on specific issues (e.g., clean-ups and erosion). Funding opportunities exist through various central government sources (notably the Sustainable Management Fund and FRST) to resource the development of a beach assessment system appropriate to New Zealand. Environment Waikato would seem to be well-placed to take a lead role in such a project.

Alternatively, a model such as the Marine Conservation Society's 'Good Beach Guide' could be adopted where the management of the system is essentially in the hands of a non-government organisation (e.g., the NZ Coastal Society, Royal Forest and Bird Protection Society, or ECO). Such an approach would require some buy-in and support from the Waikato Region's local authorities with coastal responsibilities.

References and Bibliography

Barnett, S. and R. Wolfe, 1993, *At the beach: the Great New Zealand Holiday*, Hodder and Stoughton, Auckland.

Blakemore, F. B. and A. T. Williams, 1998, 'Public Valuation of Beaches in South East Wales, UK', *Shore & Beach*, vol. , pp. 18-23.

Bojanic, D., 1992, 'A look at a modernised family life cycle and overseas travel', *Journal of Travel and Tourism Marketing,* vol. 1, no. 1, pp. 61-80.

British Broadcasting Commission, 2001, *'Squeaky clean' beaches risk to wildlife*, BBC News.

Buckley, R. C., 2001, 'Turnover and Trends in Tourism Ecolabels', in X. Font and R. C. Buckley (Editors), *Tourism Ecolabelling: Certification and Promotion of Sustainable Management*, CABI Publishing, New York.

Camhis, M. and H. Coccossis, 1, 1982, 'The National Coastal Management Program of Greece', *Ekistics*, 293, pp.131-137.

Campillo-Besses, X., G. K. Priestley and F. Romagose, 2004, 'Using EMAS and Local Agenda 21 as Tools towards Sustainability: The Case of a Catalan Coastal Resort', in B. Bramwell (Editor), *Coastal Mass Tourism: Diversification and Sustainable Development in Southern Europe*, Channel View Publications, Clevedon.

Carlin, J, 1999, *Beach – New Zealand*, David Bateman, Auckland.

Chatziathanassiou, A., D. Mavrogiorgos and K. Sioulas, 2004, 'Environmental Initiatives in the Hotel Sector in Greece: Case Study of the 'Green Flags' Project', in B. Bramwell (Editor), *Coastal Mass Tourism: Diversification and Sustainable Development in Southern Europe*, Channel View Publications, Clevedon.

Clean Beaches Council, 2004, *Beaches*, Retrieved: April, 16, 2005 from http://cleanbeaches.com

Environmental Campaigns, 2005, *The 2005 Seaside Awards*, Retrieved: April 4, 2005 from http://www.seasideawards.org.uk/sea1.asp

Environment Waikato, 1998, *Waikato State of the Environment Report*, Waikato Regional Council, Hamilton

European Commission, 2001, *Life Project - Green Flag for Greener Hotels: Project ENV98/338.*

European Commission, 2004, *Water Quality in the European Union – Bathing Water Quality*, Retrieved: May 20, 2005 from http://europa.eu.int/water/water-bathing/index_en.html

European Commission, 2005, *An Overview of the EU Eco-label Scheme*, Retrieved: June 10, 2005 from http://europa.eu.int/comm/environment/ecolabel/whats_eco/ov_concept_en.htm

Font, X. and R. C. Buckley, 2001, *Tourism Ecolabelling: Certification And Promotion of Sustainable Management*, CABI Publishing, New York.

Foundation for Environmental Education, (n.d.), *Blue Flag Campaign*, Retrieved: April 6, 2005 from http://www.blueflag.org

Foundation for Environmental Education New Zealand, 2004, *Foundation for Environmental Education New Zealand Blue Flag Workshop*.

Foundation for Environmental Education and Clean Beaches Council, *Memorandum of Understanding*.

Green Globe Asia Pacific, (n.d.), *Green Globe 21*, Retrieved: April, 13, 2005 from http://www.greenglobe21.com

Griffin, T. and T. DeLacey, 2002, 'Green Globe: Sustainability Accreditation for Tourism', in R. Harris, T. Griffin and P. Williams (Editors), *Sustainable Tourism: A global perspective*, Butterworth-Heinemann, Oxford.

Gubay, S., 1994, 'The Future of coastal management – Challengers and Opportunities', in *Proceedings of the Coastline Conference – Public Participation in coastal management, 31 May 1994*, Farnborough College of Technology, Hampshire, UK, pp. 6-7.

House, M. A. and M. Herring, 1995, *Aesthetic pollution public perception survey – Report to Water Research Centre*, Flood Hazard Research Centre, Middlesex University.

Keep Australia Beautiful National Association Inc., 2004, Australian Clean Beach Challenge, Retrieved: April 20, 2005 from http://www.keepaustraliabeautiful.org.au/nat/01_cms/details.asp?k_id=85

Keep Wales Tidy, (n.d.), *Green Coast Award*, Retrieved: April 16, 2005 from http://www.keepwalestidy.org/english/default.asp?Category=Tourism&NewsID=17&Menu=0.26.12.61

Laboratory for Coastal Research, Florida International University, (n.d.), *National Healthy Beaches Campaign*, Retrieved: April 14, 2005 from http://www.ihrc.fiu.edu/nhbc

Leatherman, S. P., 1997, 'Beach Rating: A Methodological Approach', *Journal of Coastal Research*, vol. 13, no. 1, pp. 253-258.

Manning, E. W., 1998, *Coping with Tourism: Governance for tourism in impacted Destinations*, Commonwealth Society, Canada.

Marine Conservation Society, (n.d.), *Good Beach Guide 2004*, Retrieved: April 16, 2005 from http://www.goodbeachguide.co.uk

Micallef, A., 2003, *Designing a Bathing Area Management Plan – a Template for Ramla Bay, Gozo*, The Gaia Foundation, Malta.

Micallef, A. and A. T. Williams, 2004, 'Application of a novel approach to beach classification in the Maltese Islands', *Ocean & Coastal Management*, vol. 47, pp. 225-242.

Micallef, A. and A. T. Williams, 2002, 'Theoretical strategy Considerations for beach management', *Ocean & Coastal Management*, vol. 45, pp. 261-275.

Mihalic, T., 2002, 'The European Blue Flag Campaign for beaches in Slovenia: a programme for raising environmental awareness' in

R. Harris, T. Griffin and P. Williams (Editors), *Sustainable Tourism: A global perspective*, Butterworth-Heinemann, Oxford.

Morgan, R., 1999, 'A novel, user-based rating system for tourist beaches', *Tourism Management*, vol. 20, pp. 393-410.

Morgan, R., T. C. Jones and A. T. Williams, 1993, 'Opinions and Perceptions of England and Wales Heritage Coast Beach Users: Some Management Implications from the Glamorgan Heritage Coast, Wales', *Journal of Coastal Research*, vol. 9, no. 4, pp. 1083-1093.

Nelson, C. and A. T. Williams, 1997, 'Bathing water quality and health implications', in R. Rajar and C. A. Brebbia (Editors), *Water pollution IV: Modelling, Measuring and Prediction*, Computational Mechanics Publications.

Nelson, C. and D. Botterill, 2002, 'Evaluating the contribution of beach quality awards to the local tourism industry in Wales – the Green Coast Award', *Ocean & Coastal Management*, vol. 45, pp. 157-170.

Nelson, C., R. Morgan, A. T. Williams and J. Wood, 2000, 'Beach Awards and Management', *Ocean & Coastal Management*, vol. 43, pp. 87-98.

Oldridge, S., 1992, 'Bathing Water Quality: A Local Authority Perspective', in D. Kay (Ed), *Recreational Water Quality Management, Volume 1, Coastal Waters*, Ellis Horwood Limited, Chichester.

Pereira, L. C. C., J. A. Jiménez, C. Medeiros and R. M. da Costa, 2003, 'The influence of the environmental status of Casa Caiada and Rio Doce beaches (NE-Brazil) on beaches users', *Ocean & Coastal Management,* vol. 46, pp. 1011-1030.

Ryan, C., 1995, 'Islands, Beaches and Life-Stage Marketing', in M. V. Conlin and T. Baum (Editors), *Island Tourism: Management Principles and Practice*, John Wiley & Sons, Chichester.

Short, A. D., 1993, *Beaches of the New South Wales Coast*, Australian Beach Safety and Management Programme.

Solent Forum, (2004), Solent Water Quality Award Scheme, Retrieved: May 26, 2005 from http://www.solentforum.hants.org.uk/swqc/oppguid.html

Staines, C. and J. Ozanne-Smith, 2002, *Feasibility of Identifying Family Friendly Beaches along Victoria's Coastline*, Accident Research Centre, Monash University, Victoria.

Storrier, K. L. and D. J. McGlashan, (article in press), 'Development and management of a coastal litter campaign: The voluntary coastal partnership approach', *Marine Policy*.

Thomson, J., 2003, *Coastal Values and Beach Use Survey Report. Environment Waikato Technical Report 2003/09* Environment Waikato, Hamilton.

Thurston, C, *ENCAMS and community involvement in Seaside Beach Award*, personal e-mail (14 June, 2005).

United Nations Conference on Environment and Development, 1992, *Agenda 21: Programme of Action for Sustainable Development*, United Nations Department of Public Information, New York.

Van Maele, B., K. Pond, A. T. Williams and K. Dubsky, 2000, 'Public Participation and Communication', in J. Bartram and G. Rees (Editors), *Monitoring Bathing Waters: A Practical Guide to the Design and Implementation of Assessments And Monitoring Programmes*, World Health Organisation and E & FN Spon, London and New York.

Williams, A. T., K. Pond and R. Philipp, 2000, 'Aesthetic Aspects', in World Health Organisation (Editor), *Monitoring Bathing Waters: A Practical Guide to the Design and Implementation of Assessments And Monitoring Programmes*, World Health Organisation, Geneva.

Williams, A. T. and R. Morgan, 1995, 'Beach Awards and Rating Systems', *Shore & Beach*, vol. 63, no. 4, pp. 29-33.

World Health Organisation, 2003, *Guidelines for safe recreational waters: Volume 1 – Coastal and Fresh Waters*, World Health Organisation, Geneva.

Appendix I: European Union Bathing Water Quality Directive

In 1976 the European Union produced the Council Directive 76/160/EEC on Bathing Water Quality(one of Europe's first pieces of environmental legislation), because it was decided that Europe's bathing water quality should be monitored and tested in order to protect bathers from health risk and to safeguard the environment from further pollution (www.europa.eu.int). Since 1976, new epidemiological knowledge and managerial methods have been produced and have resulted in a proposal in October, 2002 for a revised Directive of the European Parliament and of the Council concerning the Quality of Bathing Water (www.europa.eu.int).

The 1976 Bathing Water Quality Directive (see below) included Guideline and Mandatory Water Quality standards which certain beach awards have adopted to ensure that their beaches possess high water quality. While both standards ensure that high water quality is achieved, the Guideline or 'G' water quality pass is considered to have more stringent conditions than the Mandatory 'I' Pass. Some beach awards such as the Blue Flag Scheme only award beaches that have met the Guideline water quality benchmark, while others such as the Seaside Award reward beaches that have met the Mandatory 'I' Pass.

The proposed Directive on the other hand, makes use of only two bacteriological indicator parameters, but sets a higher health standard than the 1976/160 Directive (www.europa.eu.int). The revised Directive is based on international epidemiological research and on the experience with implementing the current Bathing Water and Water Framework Directives. It is hoped that the new Directive will provide long-term quality assessment and management methods in order to reduce both monitoring frequency and monitoring costs (www.europa.eu.int). A purely monitoring and retrospective compliance approach which was common with the 1976 Directive will be replaced by well-developed management of bathing waters and extensive information will be available to the public (www.europa.eu.int).

COUNCIL DIRECTIVE of 8 December 1975 concerning the Quality of Bathing Water (76/160/EEC)
THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Articles 100 and 235 thereof,
- Having regard to the proposal from the Commission,
- Having regard to the opinion of the European Parliament (1),
- Having regard to the opinion of the Economic and Social Committee (2),

Whereas, in order to protect the environment and public health, it is necessary to reduce the pollution of bathing water and to protect such water against further deterioration;

Whereas surveillance of bathing water is necessary in order to attain, within the framework of the operation of the common market, the Community's objectives as regards the improvement of living conditions, the harmonious development of economic activities throughout the Community and continuous and balanced expansion;

Whereas there exist in this area certain laws, regulations or administrative provisions in Member States which directly affect the functioning of the common market; whereas however, not all the powers needed to act in this way have been provided for in the Treaty;

Whereas the programme of action of the European Communities on the environment (3) provides that quality objectives are to be jointly drawn up fixing the various

requirements which an environment must meet *inter alia* the definition of parameters for water, including bathing water;

Whereas, in order to attain these quality objectives, the Member States must lay down limit values corresponding to certain parameters; whereas bathing water must be made to conform to these values within 10 years following the notification of this Directive;

Whereas it should be provided that bathing water will, under certain conditions, be deemed to conform to the relevant parametric values even if a certain percentage of samples taken during the bathing season does not comply with the limits specified in the Annex;

Whereas, to achieve a certain degree of flexibility in the application of this Directive, the Member States must have the power to provide for derogations; whereas such derogations must not, however, disregard requirements essential for the protection of public health;

Whereas technical progress necessitates rapid adaptation of the technical requirements laid down in the Annex; whereas, in order to facilitate the introduction of the measures required for this purpose, a procedure should be provided for whereby close cooperation would be established between the Member States and the Commission within a Committee on Adaptation to Technical Progress;

Whereas public interest in the environment and in the improvement of its quality is increasing; whereas the public should therefore receive objective information on the quality of bathing water,

(1) OJ No C 128, 9.6.1975, p.13
(2) OJ No C 286, 15.12.1975, p.5
(3) OJ No C 112, 20.12.1973, p.3

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. This Directive concerns the quality of bathing water, with the exception of water intended for therapeutic purposes and water used in swimming pools.

2. For the purposes of this Directive:

    a) 'bathing water' means all running or still fresh waters or parts thereof and sea water, in which:

        –   bathing is explicitly authorized by the competent authorities of each Member State, or

        –   bathing is not prohibited and is traditionally practised by a large number of bathers;

    b) 'bathing area' means any place where bathing water is found;

    c) 'bathing season' means the period during which a large number of bathers can be expected, in the light of local custom, and any local rules which may exist concerning bathing and weather conditions.

Article 2
The physical, chemical and microbiological parameters applicable to bathing water are indicated in the Annex which forms an integral part of this Directive.

Article 3

1. Member States shall set, for all bathing areas or for each individual bathing area, the values applicable to bathing water for the parameters given in the Annex. In the case of the parameters for which no values are given in the Annex, Member States may decide not to fix any values pursuant to the first subparagraph, until such time as figures have been determined.

2. The values set pursuant to paragraph I may not be less stringent than those given in column I of the Annex.

3. Where values appear in column G of the Annex, whether or not there is a corresponding value in column I of the Annex, Member States shall endeavour, subject to Article 7, to observe them as guidelines.

Article 4

1. Member States shall take all necessary measures to ensure that, within 10 years following the notification of this Directive, the quality of bathing water conforms to the limit values set in accordance with Article 3.

2. Member States shall ensure that, in bathing areas specially equipped for bathing to be created by the competent authorities of the Member States after the notification of this Directive, the 'I values' laid down in the Annex are observed from the time when bathing is first permitted. However, for bathing areas created during the two years following the notification of this Directive, these values need not be observed until the end of that period.

3. In exceptional circumstances Member States may grant derogations in respect of the 10-year time limit laid down in paragraph 1. Justification for any such derogations based on plans for the management of water within the area concerned must be communicated to the Commission as soon as possible and not later than six years following the notification of this Directive. The Commission shall examine these justifications in detail and, where necessary, make appropriate proposals concerning them to the Council.

4. As regards sea water in the vicinity of frontiers and water crossing frontiers which affect the quality of the bathing water of another Member State, the consequences for the common quality objectives for bathing areas so affected shall be determined in collaboration by the riparian Member States concerned. The Commission may participate in these deliberations.

Article 5

1. For the purposes of Article 4, bathing water shall be deemed to conform to the relevant parameters: if samples of that water, taken at the same sampling point and at the intervals specified in the Annex, show that it conforms to the parametric values for the quality of the water concerned, in the case of:

    –   95 % of the samples for parameters corresponding to those specified in column I of the Annex;

    –   90 % of the samples in all other cases with the exception of the 'total coliform' and 'faecal coliform' parameters where the percentage may be 80 % and if, in the case of the 5, 10 or 20 % of the samples which do not comply:

    –   the water does not deviate from the parametric values in question by more than 50 %, except for microbiological parameters, pH and dissolved oxygen;

    –   consecutive water samples taken at statistically suitable intervals do not deviate from the relevant parametric values.

2. Deviations from the values referred to in Article 3 shall not be taken into consideration in the calculation of the percentage referred to in paragraph I when they are the result of floods, other natural disasters or abnormal weather conditions.

Article 6

1. The competent authorities in the Member States shall carry out sampling operations, the minimum frequency of which is laid down in the Annex.

2. Samples should be taken at places where the daily average density of bathers is highest. Samples should preferably be taken 30 cm below the surface of the water except for mineral oil samples which shall be taken at surface level. Sampling should begin two weeks before the start of the bathing season.

3. Local investigation of the conditions prevailing upstream in the case of fresh running water, and of the ambient conditions in the case of fresh still water and sea water should be carried out scrupulously and repeated periodically in order to obtain geographical and topographical data and to determine the volume and nature of all polluting and potentially polluting discharges and their effects according to the distance from the bathing area.

4. Should inspection by a competent authority or sampling operations reveal that there is a discharge or a probable discharge of substances likely to lower the quality of the bathing water, additional sampling must take place. Such additional sampling must also take place if there are any other grounds for suspecting that there is a decrease in water quality.

5. Reference methods of analysis for the parameters concerned are set out in the Annex. Laboratories which employ other methods must ensure that the results obtained are equivalent or comparable to those specified in the Annex.

Article 7

1. Implementation of the measures taken pursuant to this Directive may under no circumstances lead either directly or indirectly to deterioration of the current quality of bathing water.

2. Member States may at any time fix more stringent values for bathing water than those laid down in this Directive.

Article 8

This Directive may be waived:
(a) in the case of certain parameters marked (0) in the Annex, because of exceptional weather or geographical conditions;
(b) when bathing water undergoes natural enrichment in certain substances causing a deviation from the values prescribed in the Annex.

Natural enrichment means the process whereby, without human intervention, a given body of water receives from the soil certain substances contained therein. In no case may the exceptions provided for in this Article disregard the requirements essential for public health protection.
Where a Member State waives the provisions of this Directive, it shall forthwith notify the Commission thereof, stating its reasons and the periods anticipated.

Article 9

Such amendments as are necessary for adapting this Directive to technical progress shall relate to:

- the methods of analysis - the G and I parameter values set out in the Annex. They shall be adopted in accordance with the procedure laid down in Article 11.

Article 10

1. A Committee on Adaptation to Technical Progress (hereinafter called 'the committee') is hereby set up. It shall consist of representatives of the Member States and be chaired by a representative of the Commission.

2. The committee shall draw up its own rules of procedure.

Article 11

1. Where the procedure laid down in this Article is to be followed, matters shall be referred to the committee by the chairman, either on his own initiative or at the request of the representative of a Member State.

2. The representative of the Commission shall be submit to the committee a draft of the measures to be adopted. The committee shall deliver its opinion on the draft within a time limit set by the chairman having regard to the urgency of the matter. Opinions shall be adopted by a majority of 41 votes, the votes of the Member States being weighted as provided in Article 148 (2) of the Treaty. The chairman shall not vote.

3. (a) The Commission shall adopt the measures envisaged where they are in accordance with the opinion of the committee.
(b) Where the measures envisaged are not in accordance with the opinion of the committee, or if no opinion is adopted, the Commission shall without delay propose to the Council the measures to be adopted. The Council shall act by a qualified majority.
(c) If, within three months of the proposal being submitted to it, the Council has not acted, the proposed measures shall be adopted by the Commission.

Article 12

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within two years of its notification. They shall forthwith inform the Commission thereof.

2. Member States will communicate to the Commission the texts of the main provisions of national law which they adopt in the field covered by this Directive.

Article 13

Member States shall, four years following the notification of this Directive and at regular intervals thereafter, submit a comprehensive report to the Commission on their bathing water and the most significant characteristics thereof. After prior consent has been obtained from the Member State concerned the Commission may publish the information obtained.

Article 14

This Directive is addressed to the Member States.Done at Brussels, 8 December 1975. For the Council The President M. PEDINI

Annex: quality requirements for bathing water

	Microbiological parameters	*G*	*I*	*Minimum sampling frequency*	*Method of analysis and inspection*
1	Total coliforms/100 ml	500	10 000	Fortnightly (1)	*Fermentation in multiple tubes. Subculturing of the positive tubes on a confirmation medium. Count according to MPN (most probable number) or membrane filtration and culture on an appropriate medium such as Tergitol lactose agar, endo-agar, 0.4% Teepol broth, subculturing and identification of the suspect colonies. In the case of 1 and 2, the incubation temperature is variable according to whether total or faecal coliforms are being investigated.*
2	Faecal coliforms/100 ml	100	2 000	Fortnightly (1)	
3	Faecal streptococci/100 ml	100	-	(2)	*Litsky method. Count according to MPN (most probable number) or filtration on membrane. Culture on an appropriate medium.*
4	Salmonella/litre	-	0	(2)	*Concentration by membrane filtration. Inoculation on a standard medium. Enrichment - subculturing on isolating agar - identification*
5	Enteroviruses PFU/10 litres	-	0	(2)	*Concentrating by filtration flocculation or centrifuging and confirmation*

	Physico-chemical parameters	G	I	Minimum sampling frequency	Method of analysis and inspection
6	pH	-	6-9 (0)	(2)	Electrometry with calibration at pH 7 and 9.
7	Colour	-	No abnormal change in colour (0)	Fortnightly (1) (2)	Visual inspection or photometry with standards on the Pt.Co scale.
8	Mineral oils mg/litre	£ 0.3	No film visible on the surface of the water and no odour	Fortnightly (1) (2)	Visual and olfactory inspection or extraction using an adequate volume and weighing the dry residue.
9	Surface-active substances reacting with methylene blue mg/l (Lauryl sulphate)	£ 0.3	No lasting foam	Fortnightly (1) (2)	Visual inspection or absorption spectro-photometry with methylene blue.
10	Phenols mg/l (phenol indices) $C_6 H_5 OH$	£ 0.005	No specific odour £ 0.05	Fortnightly (1) (2)	Verification of the absence of specific odour due to phenol or absorption spectro-photometry 4-aminoantipyrine (4 A.A.P.) method.
11	Transparency	2	1 (0)	Fortnightly (1)	Secchi's disc.
12	Dissolved oxygen % saturation O_2	80 to 120	-	(2)	Winkler's method or electrometric method (oxygen meter).
13	Tarry residues and floating materials such as wood, plastic articles, bottles, containers of glass, plastic, rubber or any other substance. Waste or splinters	Absence	-	Fortnightly (1)	Visual inspection.
14	Ammonia mg/litre NH_4	-	-	(3)	Absorption spectrophotometry, Nessler's method, or indophenol blue method.

		G	I	Minimum sampling frequency	Method of analysis and inspection
15	*Nitrogen Kjeldahl mg/litre N*	*-*	*-*	*(3)*	*Kjeldahl method.*

	Other substances regarded as indications of pollution	**G**	**I**	**Minimum sampling frequency**	**Method of analysis and inspection**
16	*Pesticides mg/litre (parathion, HCH, dieldrin)*	*-*	*-*	*(2)*	*Extraction with appropriate solvents and chromatographic determination.*
17	*Heavy metals such as: arsenic mg/litre As cadmium Cd chrome VICr VI leadPb mercury Hg*	*-*	*-*	*(2)*	*Atomic absorption possibly preceded by extraction.*
18	*Cyanides mg/litre Cn*	*-*	*-*	*(2)*	*Absorption spectrophotometry using a specific reagent.*
19	*Nitrates mg/litre NO_3 and phosphates PO_4*	*-*	*-*	*(2)*	*Absorption spectrophotometry using a specific reagent .*

G = guide, I = mandatory

(0) Provision exists for exceeding the limits in the event of exceptional geographical or meteorological conditions.

a. *When a sampling taken in previous years produced results which are appreciably better than those in this Annex and when no new factor likely to lower the quality of the water has appeared, the competent authorities may reduce the sampling frequency by a factor of 2.*

b. *Concentration to be checked by the competent authorities when an inspection in the bathing area shows that the substance may be present or that the quality of the water has deteriorated.*

c. *These parameters must be checked by the competent authorities when there is a tendency towards eutrophication of the water.*

(Source: http://europa.eu.int/water/water-bathing/directiv.html, Retrieved: 19 May 2005)

Appendix II: Blue Flag Criteria

WATER QUALITY

- Compliance with requirements and standards such as those of the [EU Bathing Water Directive](#) (i).

- No industrial or sewage related discharges may affect the beach area (i).

- Local and/or regional emergency plans to cope with pollution accidents (i).

- No algal or other vegetation may accumulate and be left to decay on the beach, except in areas designated for a specific use and as long as this does not constitute a nuisance (g).

- The community must be in compliance with requirements for sewage treatment and effluent quality such as are contained in the [EU Urban Waste Water Directive](#) (g).

ENVIRONMENTAL EDUCATION AND INFORMATION

- Prompt public warning if the beach or part thereof is expected to or has become grossly polluted or otherwise unsafe. Procedures for issuing public warnings in such cases must be covered by the emergency plan (i).

- Information on natural sensitive areas in the coastal zone, including its flora and fauna must be publicly displayed and included in tourist information. The information must include advice on how to behave in such areas (i).

- The beach operator undertakes:
  - to publicly display on the beach updated information about bathing water quality in the form of a table or figure that can be easily understood.
  - to display as close to the Blue Flag as possible information about the Blue Flag, including the aspects covered by the Blue Flag and who is responsible at local and national level.
  - to remove the Blue Flag if an imperative criteria is no longer fulfilled (i).

- The local community and the beach operator should together be able to demonstrate that at least five environmental education activities are offered (i).

- Laws governing beach use must be easily available to the public upon request, for example in tourist offices, the town hall or on the beach. Code of conduct for the beach area must be posted on the beach (i).

- The local community has an Environmental Interpretation Centre or similar permanent public environmental education place dealing with the coastal environment. Such a centre may be a denoted a Blue Flag Centre if it as a place to obtain information about the Blue Flag and as a focal point for public environmental education activities about the coast and sea (g).

ENVIRONMENTAL MANAGEMENT

- The local community must have a land-use and development plan for its coastal zone. This plan and the current activities of the community in the coastal zone

must be in compliance with planning regulations and coastal zone protection regulations. If the community is very small it may be part of a larger regional plan (i).

- Litter bins in adequate numbers, properly secured and regularly maintained and emptied. Adequate provision for refuse, algal matter and other pollutants collected at the beach. The waste collected at the beach must be disposed of in a licensed facility (i).

- A daily beach clean during the bathing season when necessary (i).

- On the beach there will be no:
  - driving unless specifically authorised
  - beach bike or car races
  - dumping
  - unauthorised camping
  Beaches on which cars are allowed must have designated areas on the beach for parking, car-free zones and the waters edge must always be kept entirely free from cars (i).

- There must be safe access to the beach (i).

- There must be management of different users and uses of the beach so as to prevent conflicts and accidents. If there are natural areas bordering the beach, steps must have been taken to prevent negative impacts from the use of and traffic to and from the beach and its waters (i).

- The beach has facilities for receiving recyclable waste materials, such as glass bottles and cans (g).

- The local community is promoting sustainable means of transportation in the beach area, such as bicycling, walking and public transportation (g).

- Adequate and clean sanitary facilities with controlled sewage disposal conforming with the requirements of the criteria concerning EU Urban Waste Water Directive (i).

SAFETY AND SERVICES

- Beach guards are on duty during the bathing season and/or there is adequate safety provisions, including lifesaving equipment and directions for their use and immediate access to a telephone. The lifesaving equipment must be of a type that is approved by national lifesaving/-guarding bodies. It must include instructions for use, must be permanently and immediately accessible on the beach and be regularly checked for proper functioning. Similarly, beach guards must be trained and accredited according to national requirements established by authorities or professional associations (i).

- First aid must be available on the beach and its location easily identified (i).

- National laws concerning dogs, horses, and other domestic animals must be strictly enforced on the beach. Their access and activities must under all circumstances be controlled (i).

- A shielded source of drinking water (g).

- Easy and ready access to a telephone in cases where the beach is not safeguarded by beach guards, the criteria is imperative (i).

- At least one of the municipality's beaches must be equipped with access ramps to the beach and toilet facilities for people with disabilities, except where the topography does not allow for it. In cases where the municipality has only one beach awarded with the Blue Flag, this beach must have access and facilities for the disabled, except where the topography does not allow for it (i).

- All buildings and equipment of the beach must be properly maintained (i).

(Source: http://www.blueflag.org/Criteria/EuropeanBeaches, Retrieved: 19 May, 2005).

Appendix III: Seaside Award Criteria

Resort Beach

A 'resort beach' is one, which actively encourages visitors. It would normally be adjacent to, or within easy and reasonable access of the urban community with developed facilities providing varied recreational opportunities. It would typically include all, or some, of the following: a café or restaurant, shop, toilets, public transport, supervision, first aid, public telephone.

Where the award refers to a section of a long beach, with no natural divisions, the beach would not, normally, be expected to be less than 500 metres long and would include one sampling point, monitored and identified* under the Bathing Water Directive 76/160/EEC.

N.B. Criteria which also refer to Blue Flag beaches are marked by *. Additional criteria apply for Blue Flag - see separate documents for specific details.

WATER QUALITY

1* To be eligible for entry for either award a beach must have attained at least the mandatory standard of the Bathing Water Directive 76/160/EEC.

The SEASIDE AWARD will be given to beaches which have bathing water of the mandatory standard (Bathing Water Directive 76/160/EEC) and fulfil 28 land-based criteria.

The BLUE FLAG will be given to beaches which also have bathing water quality of the guideline standard (Bathing Water Directive 76/160/EEC) and fulfil the 25 criteria denoted* plus additional criteria listed separately.

The results of the current season's monitoring and the standards of at least the previous four years must be posted at all Award beaches.
Mandatory bathing water must meet the mandatory standards for the faecal and total coliform parameters of the Bathing Water Directive 76/160/EEC.
Guideline bathing water must meet the guideline standards for the faecal and total coliform and faecal streptococci parameters of the Bathing Water Directive 76/160/EEC.

Guideline and mandatory physical and chemical parameters are also included for the Blue Flag.*

In some rare cases the bathing water may not have been monitored for the previous five years. In which case 'n/a' should be written by the appropriate year where previous results are displayed.

2* No industrial or sewage discharges affecting the beach area. The Seaside Award Office should be notified of any discharge points within one mile.
The presence of a discharge point does not necessarily eliminate the beach from consideration.

BEACH AND INTERTIDAL AREA

3* No gross pollution by sewage related or other waste matter including litter and no discharge of industrial or urban waste

4* No algal or other vegetation materials accumulating or decaying

Algal vegetation is generally accepted to refer to seaweed. Whilst small amounts of seaweed are inevitable it should not be allowed to accumulate, become a hazard or distasteful to the public.

5* No oil pollution

SAFETY

6* Lifeguards on duty during the summer season and/or adequate safety provision including lifesaving equipment. The provision of rescue equipment should be seen only as one element of an overall strategy. It is recommended that a full risk assessment is carried out by a qualified assessor. Safety guidelines should conform to the recommendations in SOBB § i.e. where rescue equipment is provided it should be clearly positioned and in colours of red and yellow at a maximum height of 1.7m above the ground. It should be located at intervals of 100 - 200m (although this concentration would not be necessary on a life guarded beach). All equipment should be regularly inspected. (SOBB paragraph 144-147 and table 6.1 Public Rescue Equipment). Lifesaving equipment should include instructions for use.

Safety on British Beaches (SOBB) is published jointly by ROSPA and RLSS and is available from RLSS UK, River House, High Street, Broom, Warwickshire, B50 4HN. tel: 01789 773994. Price: £7.50 inclusive VAT and postage.

7 If lifeguards are provided the times and area patrolled should be clearly defined and marked.
Safety guidelines should conform to the recommendations in SOBB i.e. Lifeguards should hold appropriate qualifications from an appropriate and recognised training and assessment agent and tested by qualified, independent assessors.

It is recommended that lifeguard uniforms conform to the officially recognised red/yellow standard.

At least 2 people within easy access of the foreshore need qualified lifeguard training and should be carrying out a surveillance plan from a fixed point. (SOBB 168 - 170)

Bathing areas patrolled by lifeguards should be explicit. The area should be defined both on the map at the information point and physically on the beach with markers or flags. It is recommended that the nationally recognised flag zoning system be used:
• red = danger red/yellow = lifeguard patrolled areas
• black/white = surfing only

The complementary 'traffic light' flag system to warn of the condition of the sea is no longer recommended in the UK.

For further details see SOBB paragraphs 103 - 116
Where there are no lifeguards the public should be informed about other safety provisions, including rescue equipment, supervision, area covered and out-of-season arrangements.

8* Clearly sign-posted First Aid facilities must be available between 10.00 a.m. and 6.00 p.m. on the seafront

First aiders should hold appropriate qualifications. Alternative, out-of season arrangements should be displayed.

9 Daily beach supervision throughout the summer season between 10.00 am and 6.00 p.m. This may be through attendant lifeguards, first aid officer, beach officer or a combination.

All beach personnel should be readily identifiable, preferably with a distinctive uniform, and conversant, through appropriate training, with the following:

• supervision duties and requirements
• potential local hazards and their location, access points, zones, public rescue equipment
• preventative strategies including details of flag systems, safety information provision, seasonal /daily variations in levels of provision
• emergency provision including public rescue equipment, telephones
• action plan in the case of an emergency• first aid & vehicular access points
• Seaside Award and/or Blue Flag * criteria

Where the lifeguard takes on the supervisory role the over-seeing of the beach should not detract from the specific responsibilities of a lifeguard (SOBB 168 - 170)

A beach officer/supervisor should also be visible, mobile and able to summon appropriate aid, monitor pollution, dog control and provide information for the public.

An office, or base, for the supervisor should be easily identifiable and ideally should contain, at least, the following equipment:
• incident record book and/or diary
• copy of the emergency accident plan
• copy of the normal operating procedure
• loud hailer
• black / white board & pen to display up-to-date information e.g. sea temperatures
• information about local environmental initiatives
• Seaside Award & Blue Flag* information and leaflets
• emergency contact numbers
• telephone / radio

10 A record should be kept of all emergency incidents and the Seaside Award office notified of any significant incidents. These records should be available for inspection on request.

These records are already required under the Health and Safety at Work Act 1974. The RLSS UK have produced an incident report form: we would recommend its use. Ideally, appropriate personnel should conduct a risk assessment: contact RLSS for details.

MANAGEMENT
11* The beach must be actively managed and promoted by the owners (local authority or private) as a tourist resort.

The season starts at the beginning of June when the Awards are announced and continues until the end of September. If the management of the beach differs radically from these guidelines within this period, e.g. there is no supervision, a sign should be erected to inform the public when all facilities will be in operation. The flag should not be flown and ENCAMS should be informed.

12* Local emergency plans to cope with pollution incidents
Where there is a written emergency procedure it should be submitted with the application.

The public should be informed of pollution or potential danger by the posting of information at the Information Point and through the media.

In order to protect the integrity of the Awards and beach managing authority it is crucial that the flag be removed if there is any infringement of the criteria e.g. sewage pollution. A sign should be erected to explain the absence of the flag.

ENCAMS should be notified of any serious incident or drowning.

13* Easy and safe access to the beach for all including disabled people where this is

possible
Ramps should be provided where possible. Access should comply with BS5810 1979 British Standard Code for Access for the Disabled to Buildings. Further information can be obtained from RADAR, 12 City Forum, 250 City Road, London EC1V 8AF.

Where promenade edges are higher than two metres above the beach, particularly where the substance of the beach is of rocks, pebbles or metal, a barrier should be erected to prevent accidental falls. It is appreciated that this is a long-term and expensive exercise and in the first instance warning signs and/or yellow lines highlighting the edge should be introduced.

14* Prohibition of unauthorised driving, dumping and camping

Where there are no physical barriers preventing access to the beach by vehicles there should be a bye-law prohibiting unauthorised driving, dumping or camping, about which there should be information displayed. Where there is parking on the beach it should be clearly identified and restricted - see criterion no 22.

15* Manage the conflicting and incompatible needs of different users e.g. zoning for swimmers, surfers, windsurfers, motorised craft, nature conservation

Swimmers should be protected from all sea craft. Distinctions should be made between motorised craft e.g. personal water craft users, water skiers, powercraft users and should be separated from paddle or sail craft.

Zoning planning should be enforced by clear signage at information points, entry points to access channels, explicit reference in literature and by buoyed lanes.

16* Dogs must be banned from the Award area throughout the summer season.

There must be an enforced bye-law banning dogs from the Award area from May - September. Dogs must be kept on a lead and under control on all adjoining or abutting areas. Where there is no bye-law in force, such as on a private beach, evidence should be provided that the alternative measures are adequate. It is recommended that an area be provided for the public to exercise dogs and this should be clearly delineated.

In Scotland a bye-law will be granted by the Scottish Office to ban dogs from a specific beach, between Mean High Water Springs and the sea from May until September. Until model bye-laws are produced by the Scottish Office management rules must be created to ban dogs from beach areas above Mean High Water Springs and to ensure dogs are kept on a lead in all adjoining or abutting areas. Alternative dog exercise areas must be provided. Further information is available from Keep Scotland Beautiful.

All other animal access and activities must be controlled under all circumstances e.g. donkey/horse riding.

17 Dog refuse bins must be available along the seafront where all dogs should be kept on a lead and under control at all times.
'Seafront' refers to the immediate area adjoining the beaches e.g. promenade, adjoining landward section of the beach, car park. These areas should be designated under the Dogs (Fouling of Land) Act 1996 if not already covered by 'Poop Scoop' legislation. Appropriate individuals should be appointed and authorised by the local authority to issue fixed penalty tickets to members of the public who allow their pet to foul these areas. For further information please contact the Seaside Award office or appropriate Regional/ National Office of ENCAMS.

The bins provided must be clearly marked for the purpose and appropriate arrangements must be made to dispose of dog refuse.

18* A clearly marked and protected source of drinking water

The source of fresh drinking water can be within the toilet facilities block or on the seafront but must be protected from birds or animals. This can be in the form of a drinking fountain.

19* Public telephones, which must be checked daily, within easy access (5 minutes walk) from any point of the award beach

An emergency telephone alone is not sufficient. It should be clearly signed and accessible to the public at all times. A telephone should also be accessible to wheelchair users.

20* Adequate toilet facilities, cleaned and maintained, including facilities for disabled people.
The number of toilet facilities available must take into consideration the maximum number of visitors expected at the beach at any one time.

Access to facilities for disabled people may be restricted by the use of a RADAR key. The supervisor would be expected to hold such a key.

Access to toilet facilities must be safe with no hindrance or interference from vehicular traffic.

21* All buildings and equipment must be maintained to a high standard and, where practicable, there must be safe confinement of all construction work which must not detract from the enjoyment of the beach user.

Any construction work or hazardous derelict structures should be enclosed to prevent ready access by the public, particularly small children.

22* Adequate access and parking facilities with marked spaces and suitable access for disabled people. Where it is necessary to park on the beach it must be safe and clearly marked and defined.

There should be safe access to the beach and resort facilities from the car park with controlled traffic flow on any intervening roads.

The car park surface must be in good order, preferably a metalled finish. Reserved spaces for disabled person's parking must be clearly marked and give easy access to the resort facilities.

Where it is absolutely necessary to park on the beach it must be safe, controlled, clearly marked and defined.

CLEANSING

23* Adequate cleansing of the beach

Litter should not be allowed to accumulate or be unsightly and must comply with the EPA part IV (ref. Code of Practice on Litter & Refuse, Category 5 Zone).

24* Appropriate litter bins in adequate numbers, properly secured and regularly maintained, emptied at least daily

Litter bins should be covered and of a suitable character and appearance. 25 metres is the recommended minimum interval between receptacles although numbers may vary according to the bin capacity, numbers of users and the effect of the tide on the area of the beach. When choosing and locating bins the following points should be considered:

• bin capacity
• type & source of litter
• volume of pedestrian traffic
• servicing methods and intervals
• local environment e.g. potential strong winds, high tides, scavenging animals
• accessibility e.g. height surface
For further advice contact your regional ENCAMS office.

INFORMATION AND EDUCATION

25* Prompt public warning if the beach or part thereof has, or is expected to, become grossly polluted or unsafe.

This requirement includes the discharge of storm water. Contingency plans must be devised to broadcast warnings to the public, both through the media and through the provision of signs on the beach and at Tourist Information Centres and civic offices.

26* Evidence that the interests of protected sites and rare or protected species have been addressed with close liaison with recognised local conservation organisations Some sites may prove environmentally delicate and require particular management techniques in which case evidence must be provided to show that recognised local conservation organisations have been approached for advice and problems addressed. It may be that the fragility of certain environments will preclude them from this sort of award on the grounds that greater visitor numbers would endanger wildlife or habitats.

27* Laws covering beach use and appropriate codes of conduct easily available to the public (including in Tourist Information Centres and civic offices)

28 Public display of:
• Bathing Water Quality Poster with updated information ideally conforming with the DEFRA / ENCAMS format and including details of the duration of the bathing season if it differs from 15 May - 30 Sept. *
• results of, at least, the previous four years water quality monitoring
• car parks
• safety information including times of first aid, lifeguard attendance and area patrolled (if relevant)
• local bye laws including dog restrictions
• Blue Flag criteria * (where relevant)
• Seaside Award criteria (synopsis)
• ENCAMS Seaside Award Office address
• local Authority / Managing agent address
• map delineating the area of the awarded beach, facilities and location of sampling points

This information should be displayed at every reasonable access point to the beach. Award posters are provided to all Award beaches. These can be adapted to include all the pertinent information for the beach. Certificates outlining the criteria will be issued to all successful applicants.

All signs should be clean, legible and weatherproof, have strong colour contrast to distinguish information from its background, be within visual range of eye level and well lit.

Environmental Interpretation Centres / Ecology Centres or similar public awareness places are recommended for Blue Flag beaches.*

29* The responsible authority should be able to demonstrate that it encourages promotional/educational activities throughout the year relating to the coastal environment in the area.

A separate list of organisations and suggestions for environmental initiatives is available. It is recommended that attention be paid to recycling and the provision of recycling facilities at, or near, the main promenade. There should be at least five initiatives.

Rural Beach

A 'rural beach' is one which has limited facilities and has neither been actively managed and developed as a resort nor is part of any significant development. The aim of the award is to acknowledge those beaches which are visited and enjoyed for their intrinsic qualities where local interest and management maintains a clean environment whilst at the same time promoting considerate use by visitors. They would generally be more remote than resort beaches.

Where the award refers to a section of a long beach, with no natural divisions, the beach would be expected to be approximately 500 metres long and would include one sampling point. The water must be monitored by the Environment Agency, SEPA, DEFRA or an authority approved by the Seaside Award Office. It must be monitored according to the European Bathing Water Directive 76/160/EEC although it is not necessarily an 'identified beach'.

WATER QUALITY

1 To be eligible for entry a beach must have attained at least the mandatory standard of the Bathing Water Directive 76/160/EEC.

The SEASIDE AWARD will be given to beaches which have bathing water of the mandatory standard (Bathing Water Directive 76/160/EEC) and fulfil 12 land-based criteria.
The results of the current season's monitoring and the standards of, at least, the previous four years must be posted.

Mandatory bathing water must meet the mandatory standards for the faecal and total coliform parameters of the Bathing Water Directive 76/160/EEC.

In some rare cases the bathing water may not have been monitored for the previous five years. In which case 'n/a' should be written by the appropriate year.

The bathing water at a rural beach does not necessarily have to be identified as a site under the Bathing Water Directive 76/160/EEC but all monitoring must be carried out strictly within the Directive methods of analysis of inspection. The suitability of results of monitoring bodies other than the Environment Agency should be checked with the Seaside Award office.

2 No industrial or sewage discharges affecting the beach area. The Seaside Award Office should be notified of any discharge points within one mile.

The presence of a discharge point does not necessarily eliminate the beach from consideration.

BEACH AND INTERTIDAL AREA

3 No gross pollution by sewage related debris or other waste including oil, glass and litter and no discharge of industrial or urban waste or decaying vegetation.

The existence of seaweed is a vital part of the beach ecology on some rural beaches. The raking of sandy areas closest to fore dunes and the removal of seaweed should be treated sensitively as the removal of pioneer species, such as sea rocket and sea stock which grow in front of the dunes, prevents them establishing roots and stabilising the dune structures.

MANAGEMENT

4 The beach must be actively managed under a scheme of `guardianship' by a local group, school, parish or individual.

A named contact or organisation should be appointed to act as a 'guardian'. This could be a local school, parish council or individual who has undertaken to keep an eye on the beach, alert authorities to problems and even do some litter picking and maintenance of notices.

5 Access must be safe and well maintained

Road access and parking for vehicles must be adequate and, although not necessarily metalled, the road surface must be well maintained.

Access from the car park to the beach must be safe. Advice about steep or restricted access must be well displayed and included in all promotional literature.

6 Prohibition of unauthorised driving, dumping and camping

7 Any buildings and equipment must be adequately maintained and there must be safe confinement of all construction work which must not detract from the enjoyment of the beach user.

Any construction work or hazardous derelict structures should be enclosed to prevent ready access by the public, particularly small children.

CLEANSING

8 Provision of properly secured litter bins in adequate numbers where appropriate. Litter and animal waste should not be allowed to accumulate either on the beach or surrounding area.
Whilst dogs are allowed on rural beaches owners should be encouraged to clean up after them.

SAFETY

9 The beach should be considered locally as being relatively safe for swimmers and visitors.
No beach should apply if it is steeply shelved, has rip tides or strong under currents. Ideally, a risk assessment should be conducted by appropriately qualified personnel. Contact RLSS for guidance.

10 Appropriate lifesaving equipment should be provided.

It is recommended that there is consultation with an accredited agency regarding type and location of equipment and that a risk assessment be carried out by a qualified assessor.

11 Beach users should be warned of the potential hazards of swimming and advised of appropriate behaviour close to water.
The most effective method of promoting water safety is through community education.
It is suggested that the Water Safety Code be displayed. It includes four main points: i] spot the dangers, ii] take advice, iii] don't go it alone, iv] learn how to help.
See SOBB page 34

INFORMATION AND EDUCATION

12 An Information Point with advice about nearest:
• telephone
• hospital / surgery / first aid point
• police

- coastguard
- local hazards
- local authority / beach guardian's contact number & address
- Bathing Water Quality Poster with updated information ideally conforming with the DoE / TBG format and including details of the duration of the bathing season if it differs from 15 May - 30 Sept.
- results of, at least, the previous four years' monitoring
- map delineating the appropriate area of the beach, sampling points and facilities

13 Visitors should be actively encouraged to protect and conserve the beach and environments. This includes the careful disposal of litter and dog faeces.

Some sites may prove environmentally sensitive and require particular management techniques in which case evidence must be provided to show that recognised local conservation organisations have been approached for advice and the problems addressed. It may be that the fragility of certain environments will preclude them from this sort of award on the grounds that greater visitor numbers would endanger wildlife or habitats. Some access may be restricted by signs, barriers or planting of effective vegetation. Signs should encourage dog owners to have a responsible attitude to the cleanliness and behaviour of their pets.

WATER QUALITY CRITERIA
Water quality will be judged on the results of the water analysis of the summer season of 2002.

- Mandatory Bathing Water must meet the mandatory standards for the faecal and total coliform parameters of the Bathing water Directive 76/160/EEC.
a] total coliform no more than: 10,000 per 100 ml
b] faecal coliform no more than: 2,000 per 100 ml

There should be at least 20 samples, taken at regular intervals throughout the summer season, of which 95% must comply with the above two parameters.

- Guideline Bathing Water must meet the guideline standards for faecal coliform, total coliform and faecal streptococci parameters and the mandatory standard for the faecal and total coliform parameters of the Bathing Water Directive 76/160/EEC.
a] total coliform no more than: 500 per 100 ml
b] faecal coliform no more than: 100 per 100 ml
c] faecal streptococci no more than 100 per 100 ml

There should be at least 20 samples, taken at regular intervals throughout the summer season, of which 80% must comply with parameters a & b and 90% with parameter c.

Where bathing water is not monitored by the Environment Agency results will be accepted from an alternative independent organisation i.e. Regional Water Service Company, Public Health Laboratory, accredited NAMAS laboratory. Specific details of all microbiological parameters must be submitted with every entry.

A beach will be eligible for consideration for a SEASIDE AWARD where the bathing water meets the mandatory Directive standards and fulfils all the appropriate land-based criteria.

A beach will be eligible for consideration for a BLUE FLAG where there is a sampling site monitored and identified under the Bathing Water Directive. The bathing water must meet the mandatory and the guideline standards of microbiological parameters of the Directive and must also comply with the physico-chemical parameters, summarised below. (Full details are available separately.) It must also fulfil all the necessary criteria listed separately and summarised and noted * in this document.

	Mandatory	**Guideline**
pH	6-9	
colour	no abnormal change	
mineral oils	no visible film on the surface and no odour	
surface active substances	no lasting foam	
phenols	no specific odour	
transparency	secchi depth >1m or "no abnormal decrease"	secchi depth 2m
tarry residues and floating materials	absence of sewage solids in water and land	absence from water and land
no oil pollution		

(Source: http://www.seasideawards.org.uk/sea2.asp, Retrieved: 19 May, 2005).

Appendix IV: National Healthy Beaches Campaign - Ratings Criteria

Resort/Urban and Rural/Parks Beaches
I. WATER QUALITY
Water quality evaluation is one of the most important determining factors for beach certification. Healthy Beaches are required to regularly evaluate their water quality to determine whether the water is safe for bathing purposes. Sampling should be done on a 30-day geometric mean, which is the mean of all individual samples collected during five or more sampling events representatively taken over a 30-day period. Currently, for five plus sampling events, this is 35/100mm for Enterococci (marine) and for E.Coli 126/100mm. A beach shall use these EPA recommended water quality guidelines (or 'as protective' per EPA guidelines) obtained from Government reports during the 2003/04 high-use season. Water quality standards define a measurable relationship between the quantity of the bacterial indicator in the water and the potential risk to human health associated with recreational water usage. E. coli and Enterococci show the strongest relationship with swimming-associated gastrointestinal illness.

Bacteriological Indicators*
Enterococci (marine) /100mm   *E. coli* (fresh water) /100mm

*The NHBC will obtain this information from the US EPA. www.epa.gov/waterscience/beaches/local/statrept.pdf

• Beach Closures (on an annual basis):

☐ 0   ☐ 1 - 2   ☐ 3 - 4   ☐ 5 - 6   ☐ more than 6

• Algae in water and on the beach (rate by severity)

☐ 0 (absent)   ☐ 1   ☐ 2   ☐ 3   ☐ 4 (infested)

• Red tide (number of occurences annually)

☐ 0 (absent)   ☐ 1   ☐ 2   ☐ 3   ☐ 4

II. SAND QUALITY
• Beach width at low tide

☐ Narrow (<30 ft.)   ☐ 30-100 ft.   ☐ 100-200 ft.   ☐ Very wide (>200 ft.)

• Oil and tar balls washed up on the beach (number of occurences annually)

☐ 0   ☐ 1   ☐ 2   ☐ 3   ☐ 4

• Seaweed/Jellyfish on the beach (number of occurences annually)

☐ 0   ☐ 1   ☐ 2   ☐ 3   ☐ 4

• Domestic animals allowed on the beach (e.g., dogs)?

☐ Yes   ☐ No

If yes, are pooper scoopers used? _____
If yes, is there someone patroling the area to enforce proper clean-up 'pooper scooper ' use?
_____

• Trash, litter, and glass, etc. at the start of the day*.

☐ A (rare)   ☐ B   ☐ C   ☐ D (much)

*See note at the end of criteria section.
Is a beach sweeper used (please describe frequency)?
_____

• Beach material

☐ Fine sand   ☐ Medium sand   ☐ Coarse sand   ☐ Cobbles   ☐ Rocky/Muddy

• Bathing area bottom conditions

☐ Fine sand   ☐ Medium sand   ☐ Coarse sand   ☐ Cobbles   ☐ Rocky/Muddy

• Well-kept grounds/promenades or natural environment

☐ Yes   ☐ No

III. SAFETY

• Is a public warning system in place to promptly alert the public in the event that the beach becomes unsafe (e.g. inclement weather conditions), unsanitary, or unhealthy in any manner?

☐ Yes   ☐ No

• Are recordings kept of emergencies that happen?

☐ Yes   ☐ No

• Rip currents

☐ Never present   ☐ Occasionally present   ☐ Frequently present

• Rip currents

☐ Never present   ☐ Occasionally present   ☐ Frequently present

• Any drownings (on an annual basis)?

☐ Yes   ☐ No

If yes, provide information. _____

• Shorebreaks (large waves breaking directly on the beach)

☐ Never present   ☐ Occasionally present   ☐ Frequently present

• Any major neck injuries or deaths (on an annual basis)?

☐ Yes   ☐ No

If yes, provide information. _____

• Lifeguards (strongly recommended, but not required)

☐ Present   ☐ Absent

• If not, is there adequate safety equipment on the beach?

☐ Yes   ☐ No

If unguarded, are adequate warnings/enclosures in place regarding potential hazards (e.g., rips, beach construction, etc.)?

☐ Yes   ☐ No

• Mosquito or other pest outbreaks requiring major spraying (i.e., West Nile Virus)

☐ Yes   ☐ No

If yes, please provide information. _____

• Longshore currents (during the bathing season)

☐ Weak   ☐ Moderate   ☐ Strong

• Beach slope (underwater)

☐ Gently sloping bottom   ☐ Moderately sloping bottom

☐ Steeply sloping bottom   ☐ Presence of deep holes or drop offs

• Shark attacks (on an annual basis)

☐ None   ☐ Some

If you answered some, please provide information.

_____

• Public safety (e.g., pickpockets, crime)

☐ No problems   ☐ Occasional incidents   ☐ A problem area

• Is there public information (e.g. local ordinances, laws, safety education) prominently posted with phone numbers and directions to the nearest life/safety services?

☐ Hospital   ☐ Police   ☐ Coast Guard   ☐ Local Authority

• Is first aid available on the beach?

☐ Yes   ☐ No

• Are there any storm water overflows or sewage pipes nearby?

☐ Yes   ☐ No

IV. ENVIRONMENTAL QUALITY & MANAGEMENT

Healthy Beaches should promote peaceful and protective coexistence of sensitive plant/wildlife habitats with human recreation (e.g. turtle nesting; marked zones for swimmers, surfers and motorized craft).

• Can you estimate the number of people in the water at peak period? _____

• Vegetation nearby (i.e., sea oats, mangroves, trees, dunes)*

☐ None   ☐ Few   ☐ Many

*These natural environments help prevent erosion and lessen storm damage

• Any exotic or invasive species present?

☐ Yes   ☐ No

If yes, please list information
_____

• If sensitive areas exist, for example dunes, are facilities present such as boardwalks?

☐ Yes   ☐ No

• Presence of seawalls, riprap, and concrete/rubble (that replaces natural habitats)

☐ None   ☐ Few   ☐ Many

• Presence of seawalls, riprap, and concrete/rubble (that replaces natural habitats)

☐ None   ☐ Few   ☐ Many

• Buildings/urbanism

☐ Pristine/wild   ☐ A few buildings

☐ Many structures, but not offensive   ☐ Overdeveloped

• Misfits (nuclear power station, offshore dumping)

☐ Yes   ☐ No

If yes, please describe information_____

• Off-road vehicles (during the beach season)

☐ None present   ☐ Few present   ☐ Common

• Intensity of beach use

☐ Ample open space   ☐ Many people   ☐ Crowded   ☐ Overcrowded

Can you give a figure for the peak period? _____

• If there is a zonation system in place? For example, bathing, surfing, turtle nests, etc.?

☐ Yes   ☐ No

• Has the beach a history of erosion problems?

☐ Yes   ☐ No

If yes, can you give a figure as to how much per annum? _____

V. SERVICES
The facilities at a Healthy Beach must be kept clean and safe at all times.
• Bathroom facilities availability

☐ Present   ☐ Absent

If present, what is their condition?

☐ Clean, good condition   ☐ Dirty, unkempt

• Are there facilities for people with disabilities?

☐ Yes   ☐ No

• Shower facilities availability

☐ Present   ☐ Absent

If present, what is their condition?

☐ Clean, good condition   ☐ Dirty, unkempt

• Snack bars/restaurants

☐ Present ☐ Absent

• Recycling receptacles

☐ Available ☐ None available

• Parking availability

☐ Parking available ☐ Difficult to find parking ☐ Cars turned away

If cars turned away, how many days in the year does this occur? _____

• Drinking water for public - clearly marked and protected within walking distance from the beach

☐ Yes ☐ No

• Public telephones - working and within walking distance from beach

☐ Yes ☐ No

• Beach Access

☐ Good access ☐ Limited access ☐ Access a problem

• Access for people with disabilities (e.g. ramp)

☐ Yes ☐ No

Litter Categories for grading a beach (in no particular order)

	Category	Type	A	B	C	D
1	Sewage Related Debris	General e.g. condom	0	1-5	6-14	>15
		Q tips	0-9	10-49	50-99	>100
2	Large Litter	e.g. grocery cart, chair	0	1-5	6-14	>15
3	General Litter	e.g. cola can, water bottle	0-49	50-499	500-999	>1000
4	Harmful Litter	Broken Glass	0	1-5	6-24	>25
		Other e.g. syringe	0	1-4	5-9	>10
5	Piles of material	e.g. debris, seaweed	0	1-4	5-9	>10
6	Oil		None	Trace	Noticeable	Objectionable
7	Faeces		0	1-5	6-24	>25

Reference: EA/NALG, (2000), 'Assessment of Aesthetic Quality of Coastal and Bathing Beaches', Monitoring Protocol and Classification Scheme, UK Environmental Agency.

Procedure

1. Find an access point - if possible the main one - to the beach.
2. Select points fifty yards either side of the access point and stretching from the high tide waterline to the backshore.
3. Count the number of litter items within this area for each of the above seven categories.
4. For each row (category), circle the box associated with the counted number.
5. Take the letter grade of the furthermost (to the right) circled box and enter it into the sand quality sectional box

(Source: http://www.ihrc.fiu.edu/nhbc/rating_criteria.htm, Retrieved: 26 May, 2005)

Appendix V(a): Criteria for Blue Wave-Resort Beaches

CRITERIA FOR BLUE WAVE CERTIFICATION
Criteria Review Form
2004/2005 Beach Season
RESORT BEACHES

A resort beach is one that has developed its facilities, actively encourages visitors and provides varied recreational opportunities. The beach should be within easy access to commercial development. It would typically include hotels, resorts, restaurants, shops, toilets, public transportation, municipal supervision, first aid facilities, and public phones. Resort beaches also may include beaches in urban settings, such as New York City or Los Angeles beaches.

I. Water Quality

1) Beach uses the 1986 Ambient Water Quality for Bacteria guidelines recommended by EPA (or as protective as the EPA guidelines) during the 2004/05 high use season:

Bacteriological Indicators	Recommended Guideline
• Enterococci (marine) • Escherichia coli (fresh water)	1986 EPA Ambient Water Quality Criteria for Bacteria

2) Beach takes at least 5 samples over 30-day intervals or appropriate number of samples as deemed by EPA during the high use season.
3) Mechanisms are in place to issue health advisories or closures as necessary.
4) Mechanisms are in place to issue advisories or closures due to severe incidences of algal growth, red tide, or oil spills.

II. Beach and Intertidal Zone

5) Industrial or municipal discharges are in compliance with appropriate standards, causing minimal adverse effects on environment, human health or aesthetics.
6) No or minimal presence of algae or other vegetation materials are accumulating and decaying on the beach.
7) No or minimal presence of trash or debris is on the beach.
8) Procedures are in place for the appropriate handling or removal of stranded or dead marine organisms.

III. Safety

9) Beach patrol personnel or lifeguards are on duty during the high-use season, with adequate safety provisions readily available for emergency use. A beach flag warning system utilizing a uniform red/yellow/green colour scheme is highly recommended.
10) Records of all emergency incidents are kept during the certification season. These records, as well as local emergency plans to cope with pollution incidents, should be available for public inspection upon request, if applicable.
11) Construction or hazardous structures are marked or enclosed to prevent ready access by the public, particularly small children.
12) An advisory and closure system for life-threatening weather conditions (e.g. storms, hurricanes, etc.) exists.
13) Appropriate pest management measures are taken if insect or pest outbreaks become problematic.

IV. Services and Maintenance

14) Easy, safe beach access exists for all, including the disabled where possible.
15) Clearly marked and protected sources of drinking water for public are within walking distance of the beach.
16) Working public or emergency telephones are within walking distance of the beach.
17) Adequate, clean toilet facilities are within walking distance of the beach.
18) Adequate access is provided to parking facilities, including provisions for the disabled where possible.
19) The beach provides appropriate litter bins in adequate numbers, properly secured, regularly maintained and emptied at least once daily; or an effective carry in/carry out programme is in place.

V. Habitat Conservation

20) The beach promotes peaceful and protective coexistence of sensitive/plant wildlife habitats with recreation (e.g. zoning for turtle nest sites, bird nest sites, manatee areas, sensitive vegetation, etc.).
21) The beach has evidence that protected sites and rare or protected species have been addressed in partnership with local fish and wildlife services and conservation groups.
22) Management measures are in place, where possible, to address the presence of exotic or invasive species.

VI. Information and Education

23) The beach has in place a system for prompt public warning if the beach has, or is expected to, become grossly polluted or unsafe.
24) Safety education measures are in place to inform the public of hazardous conditions which may, either permanently or from time to time, exist in the water.
25) Laws covering beach use and appropriate codes of conduct are easily available to the public (including in local tourism centres and civic offices).
26) Local ordinances affecting driving, dumping and camping on the beach are clearly displayed and enforced.
27) Local ordinances regarding the presence of animals and pets on the beach are clearly displayed and enforced.
28) The beach provides an easily identified information point with emergency contact information (e.g. local 911, emergency responders, etc.)
29) The beach provides evidence of local conservation educational materials and programmes for the public.
30) Methods to control competition for free use of the beach and swimming areas (e.g. fishermen, boaters, water-skiers) are in place and communicated clearly to the public.

VII. Erosion Management

31) The beach has an ongoing programme to evaluate techniques and implement sustainable approaches to beach enhancement and nourishment.
32) Vegetated structures are in place, where possible, to help control erosion.
33) Areas sensitive to erosion, such as dunes, are closed to the public and demarcated with adequate signage. The use of walkovers or walkthroughs to control dune trampling is encouraged.

(Source: http://www.cleanbeaches.org/bluewave/resort.pdf, Retrieved: 26 May, 2005)

Appendix V(b): Criteria for Blue Wave – Rural Beaches

CRITERIA FOR BLUE WAVE CERTIFICATION Criteria Review Form
2004/2005 Beach Season
RURAL BEACHES

A rural beach is one that has limited facilities and has not been developed as a resort. Rural beaches are generally more remote than resort beaches, with virtually no commercial beachfront development. However, they may be populated with residential dwellings. Rural beaches also include park facilities. Rural beaches are visited and enjoyed for their intrinsic qualities. Local management maintains a clean environment while promoting considerate use by visitors.

I. Water Quality

1) Beach uses the 1986 Ambient Water Quality for Bacteria guidelines recommended by EPA (or as protective as the EPA guidelines) during the 2004/05 high use season:

Bacteriological Indicators	Recommended Guideline
• Enterococci (marine) • Escherichia coli (fresh water)	1986 EPA Ambient Water Quality Criteria for Bacteria

2) Beach takes at least 5 samples over 30-day intervals or appropriate number of samples as deemed by EPA during the high use season.
3) Mechanisms are in place to issue health advisories or closures as necessary.
4) Mechanisms are in place to issue advisories or closures due to severe incidences of algal growth, red tide, or oil spills.

II. Beach and Intertidal Zone

5) Industrial or municipal discharges are in compliance with appropriate standards, causing minimal adverse effects on environment, human health or aesthetics.
6) Large, post-storm build-ups of vegetative matter or algae are removed from the beach. Natural levels of algae on the beach are acceptable.
7) No or minimal presence of trash or debris is on the beach.
8) Procedures are in place for the appropriate handling or removal of stranded or dead marine organisms.

III. Safety

9) First aid or emergency response is available for a swimming beach (e.g., paramedics, EMT).
10) Unguarded beaches display adequate warnings of potential hazards to swimmers and pedestrians (e.g., rip tides, stingrays, jetties). The use of a beach flag warning system utilizing a standard red/yellow/green colour scheme is highly recommended.
11) Appropriate pest management measures are taken if insect or pest outbreaks become problematic.

IV. Services and Maintenance

12) Beach is actively managed under a custodial scheme.

13) Access is safe and well maintained. Where appropriate, road access and parking for vehicles (e.g., handicapped) is adequate. Although not necessarily paved, the road surface is well maintained.

14) Clearly marked and protected sources of drinking water for public are within walking distance of the beach, where feasible.

15) The beach has either appropriate litter bins in adequate numbers or an effective carry-in/carry-out programme in place. Litter and animal waste are not allowed to accumulate either on the beach or the surrounding area.

V. Habitat Conservation

16) The beach promotes peaceful and protective coexistence of sensitive/plant wildlife habitats with recreation (e.g. zoning for turtle nest sites, bird nest sites, manatee areas, sensitive vegetation, etc.).

17) The beach has evidence that protected sites and rare or protected species have been addressed in partnership with local fish and wildlife services and conservation groups.

18) Management measures are in place, where possible, to address the presence of exotic or invasive species.

VI. Information and Education

19) The beach provides evidence of local conservation educational materials and programmes for the public.

20) Laws covering beach use and appropriate codes of conduct are easily available to the public (including in local tourism centres and civic offices).

21) Local ordinances affecting driving, dumping and camping on the beach are clearly displayed and enforced.

22) Local ordinances regarding the presence of animals and pets on the beach are clearly displayed and enforced.

23) The beach provides an easily identified information point with emergency contact information (e.g. local 911, emergency responders, etc.)

24) Where necessary, methods to control competition for free use of the beach and swimming areas (e.g. fishermen, boaters, water-skiers) are in place and communicated clearly to the public.

VII. Erosion Management

25) The beach has an ongoing programme to evaluate techniques and implement sustainable approaches to beach enhancement and nourishment.

26) Vegetated structures are in place, where possible, to help control erosion.

27) Areas sensitive to erosion, such as dunes, are closed to the public and demarcated with adequate signage. The use of walkovers or walkthroughs to control dune trampling is highly encouraged.

(Source: http://www.cleanbeaches.org/bluewave/rural.pdf, Retrieved: 26 May, 2005)

Appendix VI - Green Coast Award Criteria

1) The beach must comply with the Mandatory and Guideline water quality standard of the bathing water Directive 76/160/EC. The water quality of the current and previous 3 years must be displayed at a central information point and updated on a weekly basis.

2) It must be shown that the managing body have established a beach management committee where all the statutory bodies and other relevant organisation associated with beach management have been consulted; any issues raised must be addressed.

3) Each Green Coast Award beach must have a beach management plan in place produced by the beach management committee to ensure the protection of any environmentally sensitive areas of the beach.

4) There should be no industrial or sewage discharges affecting the beach area. Keep Wales Tidy should be notified of any discharge points within one mile of the beach.

5) There should be no gross pollution by sewage related debris or other waste including oil, glass and litter either on the beach or the surrounding area.

6) Manual removal of litter only, leaving all naturally occurring debris such as seaweed and driftwood, unless it becomes contaminated with a material or substance e.g. oil, that is hazardous to public health.

7) Where appropriate, the provision of properly secured and covered litter bins in adequate numbers must be made available for litter and dog faeces. These would be of suitable character and appearance and sited where appropriate to the surroundings.

8) Dog and horse owners should be encouraged, by the provision of suitable facilities and literature at a central access point, to clean up after their animals when using the beach.

9) Public access to the beach area must be safe and well-maintained; this is to include the enclosure or removal of hazardous or derelict buildings to prevent public access.

10) The beach, under normal conditions, should be considered locally as being relatively safe for bathing. A risk assessment should have been conducted and appropriate control measures, such as hazard warning signs, safety equipment and emergency planning, identified within the assessment, should be in place.

11) Information on locally organised environmental activities and events should be made readily available to the public.

12) Information should be in place to encourage visitors to consider the sensitivity of the local flora and fauna and their habitats.

13) Each Green Coast Award beach must have a guardianship scheme in place.

14) An information point with advice about nearest telephone and emergency services, local hazards, latest water quality results, previous three years (at least) water quality standards, local authority and Keep Wales Tidy address and a map of Award area showing location of facilities, water sampling points and safety information should be present.

(Source: Keep Wales Tidy (n.d.))

Appendix VII – Green Flag Criteria

Domain	Mandatory	Optional
Waste	1. Waste Management System (purchasing, collection, transportation, storing and disposal under hygiene laws and regulations) 2. Separation of different waste categories 3. Record and separate collection of hazardous wastes	1. Large receptacles for food & beverage 2. Return of packaging material to the suppliers 3. Provision of fat slops to upgrade enterprises
Energy	1. Lighting energy saving 2. Autonomous energy consumption measurements 3. Insulation requirements according to the national code for new buildings	1. Renewable energy applications 2. Energy saving systems, such as central heating/cooling, and magnetic cards
Water	1. Regular inspections and maintenance of water pipes and charges 2. Autonomous water consumption measurements 3. Signs for cautious water use	1. Water flow reducers and devices (laundry, kitchen) 2. Pool and rain water recycling systems
Wastewater	1. Compliance with 91/271/EEC (in case of own sewage treatment plant) 2. Regular biochemical analysis of effluents	'Grey' irrigation for hotels that have extensive green grounds or cultivations
Air emissions	1. Low emission burners 2. Ventilation systems (for the laundry and kitchen) 3. Designated smoking area in guest areas	1. Bicycle rental 2. Maintenance manuals for staff
Noise	1. Noise emission measurement 2. Properly informed staff	Noise minimisation measures
Purchasing Policy	1. Recyclable packaging material 2. Bulk packaging 3. Environmentally friendly detergents/agrochemicals	1. Returnable packaging 2. Local cuisine 3. Eco-labelling products and/or biologically produced food

Note: The optional criteria includes only a few from the complete list
(Source: Chatziathanassiou et al., 2004)

Appendix VIII – Foundation for Environmental Education (FEE)/Clean Beaches Campaign (CBC) Memorandum of Understanding

MEMORANDUM OF UNDERSTANDING

BETWEEN

Foundation for Environmental Education (FEE)
International Secretariat
c/o The Danish Outdoor Council
Scandiagade 13
2450 Copenhagen SV
Denmark

and

Clean Beaches Council (CBC)
1225 New York Avenue, NW
Suite 450
Washington, DC 20005
USA

PREAMBLE

Whereas the Foundation for Environmental Education (hereafter FEE) is an international non-profit, non-governmental organisation comprising national member organisations which are likewise not-for-profit and non-governmental, and is active in promoting, developing and managing programmes (including the Blue Flag award for beaches/marinas) for environmental and sustainability education, management and certification,

Whereas the Clean Beaches Council (hereafter CBC) is a USA 501 (c) (3) non-profit, non- governmental organisation devoted to sustaining America's beaches (including the Blue Wave certification program for beaches),

Whereas, FEE and CBC are desiring to establish a cooperative relationship for the purpose of mutual recognition of each others' organisations and beach programs – with the purpose of cooperating to coordinate and unify the two beach programs over time,

NOW THEREFORE, FEE AND CBC have agreed as follows:

ARTICLE 1 - OBJECTIVE

1. The present Memorandum of Understanding (hereafter referred to as MOU) aims at increasing the co-operation between FEE and CBC through (a) an official recognition of each other's organisations and beach programmes, (b) coordination of the two beach programmes, (c) promotion of the two beach programmes, and (d) achieving unification of the two beach programmes.

2. Through this MOU, FEE and CBC agree to a long-term cooperative relationship for the purpose of co-operating on beach eco-labelling/certification programmes and environmental education with the aim of improving the environmental conditions for the coastal zones in general.

GENERAL CLAUSES / MODALITIES OF COOPERATION

ARTICLE 2 – MUTUAL RECOGNITION

3. FEE and CBC will from 1 February 2005 officially recognize each other's organisations and beach programmes. The recognition will take place in the form of a common press release and creation of links between the websites of FEE and CBC. The recognition must include mentioning of this MOU and the aims of this MOU.

ARTICLE 3 – CBC AS MEMBER OF FEE

4. CBC will apply for associate membership of FEE by 1 April 2005 and attend the FEE General Assembly in Antwerp (Belgium) on 17-18 June 2005. After being accepted as associate member of FEE, CBC will thereafter follow the FEE membership requirements for associate members.

5. CBC will be allowed to attend Executive Board Meetings at least once each year as an Observer in accordance with Article 30 of the FEE Articles of Association for the purpose of presenting reports on progress being achieved under the terms of this MOU and for such other purposes as the Executive Board in its sole discretion may deem appropriate.

6. CBC will work towards Full Membership of FEE which it shall be expected to attain within three to five years of admission as an Associate Member.

ARTICLE 4 – COORDINATION AND UNIFICATION OF BLUE FLAG AND BLUE WAVE PROGRAMMES

7. CBC and FEE will start the cooperation on ensuring coordination and unification of the Blue Flag and Blue Wave beach eco-labelling/certification programes. The discussion on unification of the two beach programmes will include the following issues: a) criteria for beach certification/eco-labelling, b) procedures for beach certification/eco-labelling, c) beach categories for eco-labelling/certification (e.g., rural beaches, park beaches, lake beaches, destinations), d) procedures to achieve unification of the two programmes, and e) any other issues. The unification of the two beach programmes must be concluded and take effect not later than 31 December 2010.

8. From the effective date of this MOU, FEE is obliged not to introduce the Blue Flag Campaign in the United States of America (USA) and its territories (except Puerto Rico), and CBC is obliged not to introduce the Blue Wave Campaign in any area outside the USA and its territories. FEE and CBC are encouraged to inform (and if applicable, cooperate) on the introduction/implementation of the beach programme in any new parts of the USA (CBC) and the rest of the World (FEE) and to work together on joint fundraising, project implementation, and promotion of their respective and unified beach eco-labelling/certification programmes.

ARTICLE 5 - ENTRY INTO FORCE, SUPERVISION, AMENDMENT AND TERMINATION

9. *Adoption and Entry into Force:* This MOU will enter into force on 1 February 2005 with the signature by the duly authorized representatives of CBC and FEE.

10. *Amendment:* This MOU may be amended with the mutual consent of CBC and FEE in writing. Each such amendment shall enter into force on the date and in the manner agreed to by both.

12. *Termination:* The MOU may be terminated by either one of the organisations after giving at least six months' written notice to the other organisation. Absent further agreement by CBC and FEE to continue this MOU in effect, this MOU shall remain in effect until 31 December 2010. It is anticipated by CBC and FEE that termination of this MOU will be effectuated upon, and in conjunction with the successful unification of the two beach programmes.

IN WITNESS WHEREOF, the undersigned, being duly authorized have signed the present agreement on the dates and at the places indicated below by their respective signatures.

Date: Date:

_____   _____
_____

Jan Eriksen   Walter McLeod
President   President
Foundation for Environmental Education   Clean Beaches Council