

LOCH ERIBOLL



AQUACULTURE FRAMEWORK PLAN

AUGUST 2000

INTRODUCTION

❖ Why produce a plan for Loch Eriboll ?

1. Loch Eriboll is the only sea loch on Scotland's north coast and it is one of the most remote from the main centres of population. The development of aquaculture here helps to generate employment and income in a very sparsely populated area which has a limited range of economic alternatives.

2. There has been a marked increase in interest in shellfish farming in the loch in recent years and some strategic guidance is now required to ensure balanced development. The area also has inshore fishing, game fishing, and environmental interests which need to be taken into account. There are attractive coastal landscapes, particularly on the eastern side and around the outer loch. Its wildlife interest both on and below the water is such that the entire loch has been designated as a Marine Consultation Area. On the land adjacent there are also two coastal SSSI's, one of which (Eilean Hoan) is a bird reserve. The tourism and recreational potential of the loch however remains largely untapped.

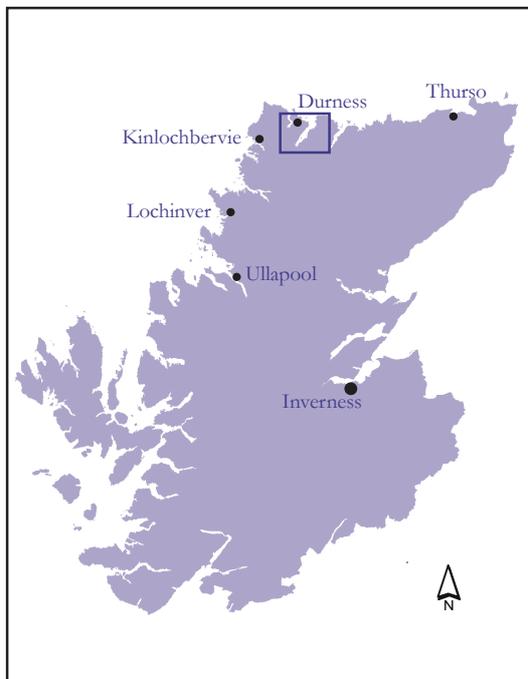
3. Since the first generation of framework plans was produced, aquaculture in Scotland has grown in scale and diversity. This trend is likely to continue as technological advances and market conditions make diversification into new species viable. Sites no longer considered appropriate for salmonid species may find a new role in farming species such as halibut and cod. Growing interest in seabed "ranching" of scallops or crustaceans via Several and Regulating Orders may focus more attention on outer sea loch areas and may lead to a degree of competition with other marine interests, eg inshore fishing, fish farming or recreational diving. In this context the framework plan can help by identifying where areas of opportunity and constraint lie.

OBJECTIVES

4. The objectives of the framework plan for Loch Eriboll are:

- to identify opportunities for aquaculture development compatible with other interests.
- to raise public awareness of the multi-faceted resources of Loch Eriboll and its environs.
- to safeguard the natural heritage interest of the area - its landscape, and coastal and marine nature conservation interest.
- to identify and safeguard the recreation/tourism assets of the loch.
- to identify infrastructure investment priorities to support the development of aquaculture and to maximise the general economic and recreational value of the loch.

Figure 1: Location of Framework Plan Area



DESCRIPTION OF THE AREA

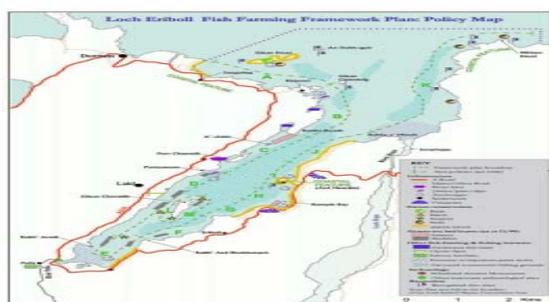
◆ Topographic setting

5. Loch Eriboll's northern aspect and its alignment in a NNE/SSW direction distinguish it from most other sea lochs in the Highland area. The rugged outer loch area is exposed to north and north-westerly winds and swell and is fairly open to south-west winds as well. It is also relatively inaccessible. Apart from the small private harbour of Rispond on the west shore, there is no road access nearby. The inner loch on the other hand is less exposed and has reasonably good road access but shelter is still somewhat limited compared with many of its more southerly counterparts. This is because the high ground on the west side lies well back from the shoreline and there are few pronounced bays or headlands.

6. Loch Eriboll lies along the major faultline of the Moine Thrust with different geological profiles on either side. This accounts for the contrast in landscape character between the east and west sides which is most marked in the area of the inner loch. The eastern side tends to be more diverse with better pastures towards its southern end and higher cliffs towards its northern end. The tombolo of Ard Neackie in particular (see cover photo), is a key feature, significant itself in regional terms. The pale-coloured quartzite cliffs along the coast between Rubh'a'Mhuilt and Whiten Head are distinctive and also of high scenic value. This side of the loch has been identified as a Regional Scenic Coast in the finalised Structure Plan.

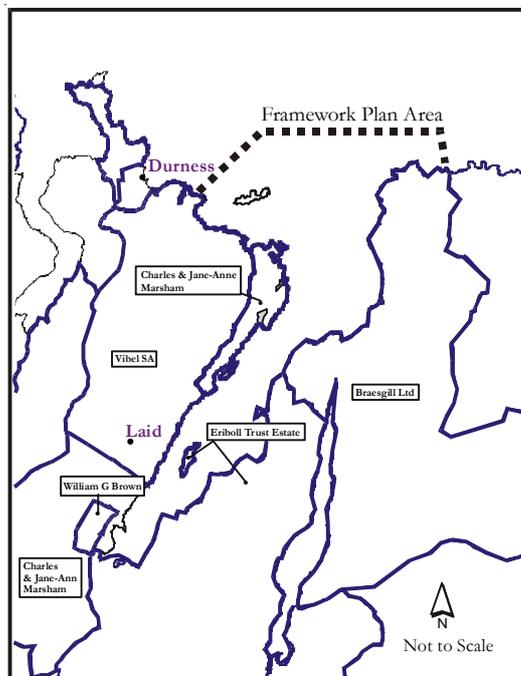
7. The western side is backed by higher hills but the summits of these are set further back from the loch than on the east side and the lower slopes are fairly uniform. There are however attractive small bays and lagoons along the shore near the head of the loch and there are fine sandy beaches close to the mouth.

Figure 2: View across the mouth of Loch Eriboll to Whiten Head



8. Overall, settlement is very sparse around Loch Eriboll, what there is being mainly concentrated in the crofting township of Laid. Ownership of the land adjacent to Loch Eriboll is currently split between 4 large estates (See Fig 3)

Figure 3: Land Ownership

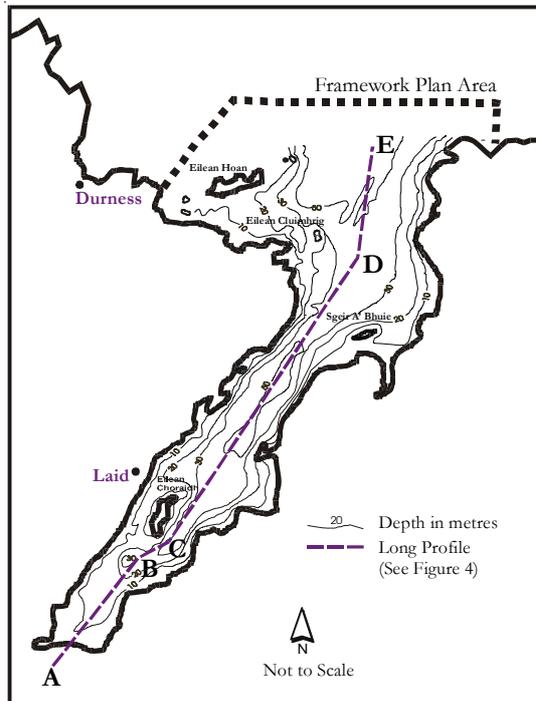


Source: The Highland Council, Land Ownership Database, 1999

◆ Hydrography

9. Loch Eriboll is 15.5 kms long with a surface area at high water of 32.4 sq.km and an intertidal area equivalent to 4% of this. Its mean depth at low water is 26m and its maximum is 68m with the main basin lying in the narrows between Rubha Ruadh and Ard Neackie. The loch is fairly well flushed in its outer and middle reaches with no very pronounced sills. Towards the head of the loch, more limited water depth and circulation limits the practical scope for aquaculture to shellfish farming. The main input of freshwater to the loch is from the Hope catchment although there is also a significant input from the river Polla.

Figure 4: Hydrography

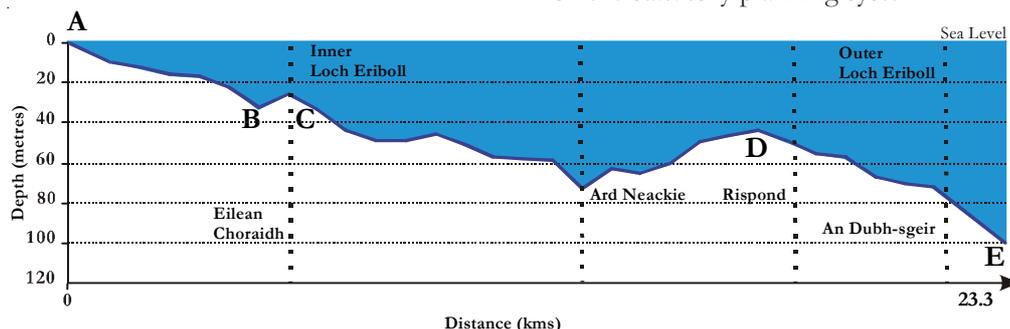


◆ **Scale of aquaculture development and potential**

10. At the time of writing two areas were leased for finfish farming: one at Kempie Bay on the east side of the loch and one between Rubha Ruadh and A' chléit on the west side of the narrows. These are the two most sheltered sites available for this type of operation. The scope for developing elsewhere in the loch is constrained to various degrees by the exposure factor and the presence of other interests. The main shore base for the finfish farming operation is at Port Chamuill.

11. The potential for diversification of species in the loch has yet to be fully explored. At present scallops and oysters are targeted by existing commercial operations. Local residents also supplement their income by collecting shellfish such as periwinkles,

Figure 5: Long Profile of Loch Eriboll from head to mouth



whelks and native oysters. The potential for expanding these activities in a sustainable manor may merit further study.

12. The latest national planning guidance (October 1999) includes a precautionary presumption against further development of marine finfish farms on the north coast. While this may preclude significant expansion of finfish farming in Loch Eriboll it should not preclude relocation or modification of existing finfish farms within the loch. Also the presumption may be subject to review or refinement within the lifetime of the framework plan. The policies here should therefore be read with this in mind.

13. Although some substantial areas were leased for shellfish farming in the 1980's, little was developed until the 1990's. In the last few years interest in this activity has however increased markedly as a result of good yields being recorded locally. This in turn has led to some concerns being expressed latterly about separation, the extent to which shellfish growth rates can be maintained with more longlines in the loch, and the possibility of leases being allocated to developers based outside the area. A key issue is therefore the overall scale of development which is feasible and acceptable - both to other users of the loch and in environmental terms. A full list of seabed leases extant at the time of writing is in Appendix 1.

14. The industry is generally showing an increasing interest in farming alternative species to salmon, such as cod and halibut. The site and gear requirements of cod are similar to that of salmon. Halibut however require more shelter and may be difficult to accommodate in the loch. Advances in technology, such as automatic feeding systems, could, within the lifetime of this plan, allow cages to be moored at more exposed and isolated locations. This could open up new sites for the industry to expand into. Land-based tanks at coastal locations are already being utilised by some operators elsewhere in Scotland, and this is an area the industry could further develop. Such developments would, however come under the control of the statutory planning system.

PLANNING ISSUES/ PROSPECTS

◆ Economic development

15. The North Coast of Sutherland is one of Scotland's most remote, sparsely populated, and economically fragile areas. Population loss has been a problem for a number of decades and aquaculture is one of this area's few main development options. In generating income and employment on both a full-time and part-time basis it is an activity which helps to sustain remote settlements and services which otherwise might be on the margin of viability.

16. Planning policy needs to nurture economic activities such as aquaculture which can capitalise on the area's natural resources. However it also has to do this within a framework which ensures development is sustainable and in reasonable harmony with other interests in the area. A wider context for this is the Highland Structure Plan and the Area Sustainability Strategy prepared by the EU LIFE-funded Duthchas project. A Scottish Executive initiative "At the Edge" has also been working to enhance and improve the overall job prospects and quality of life for locals.

17. At mid 1999 aquaculture in Loch Eriboll generated 14 jobs directly (6 full-time and 2 part-time in salmon farming, 6 part-time in shellfish farming). This compares with about 100 full-time jobs in aquaculture in NW Sutherland as a whole.

18. Most salmon farms in Scotland tend to be controlled by interests based outwith the immediate area and in 1999 Loch Eriboll was no exception. The shellfish farms in the loch on the other hand are mostly run by locals based in Laid or Durness - essentially as an adjunct to crofting, fishing, or seasonal work catering for tourists. In this respect shellfish farming helps to diversify the local economic base and to buttress incomes against downturns or a lean season in the other sectors. Growing conditions for both salmon and mussels appear to be generally good in Loch Eriboll though finfish farming tends to be restricted by the exposed nature of the coastline and the lack of access points.

19. There has been a history of speculation about the potential for large-scale industrial developments on the shores of Loch Eriboll. In the 1970's this was for oil-related development and in more recent years for a coastal superquarry - but neither has materialised. The area's identification as a potential superquarry site (on the west side of the loch) still stands but the commercial feasibility of such an operation remains uncertain. A full Socio-economic and Environmental Assessment would also be required before any such operation could be given the go-ahead. If the quarry scheme were to be implemented the area of the loch most likely to be affected would be between Port Chamuill and Rubha Ruadh.

20. Tourism is a significant seasonal employment sector in north west Sutherland. However, there is a relative lack of basic tourist facilities around Loch Eriboll itself, presumably due, at least in part, to the proximity of facilities at Durness. The remoteness of the area means that tourist flows will probably never be high but the scope for intercepting passing tourist traffic with facilities which can major on the particular attractions of Loch Eriboll has perhaps not been fully explored. The potential for development in the Ard Neackie and Laid areas is likely to be key in this regard.

21. The small crofting settlement of Laid has seen an upturn in its population in the last ten years, contrary to the general trend in north Sutherland. This has encouraged the village grazings committee to investigate a number of small-scale development opportunities to enhance the area's attractiveness for tourists. These include a heritage trail on the hillside above the village and there are plans for native woodland regeneration and coach and parking facilities.

◆ Water quality

22. Loch Eriboll is a substantial size, and has few pronounced narrows or sills so it is a good dispersive open water. The loch's exposure limits aquaculture operations to a relatively small number of sheltered sites so for the existing operators this means water quality is generally good. At the time of writing the two sites leased for finfish farming were at a reasonable distance from the other mussel farm sites, limiting the likelihood of any conflict of interest.

23. A central area of the loch is now designated under the Surface Waters (Shellfish) (Classification) (Scotland) Direction 2000. This designation requires SEPA to monitor water quality on account of the loch being a recognised mussel growing area and is intended to safeguard the water quality for shellfish cultivation. As required by the direction, SEPA have drawn up an action plan for the loch and established a sampling point at Port nan Con.

24. It has not been possible for the purposes of this plan to calculate the biological carrying capacity of the loch in broad terms for shellfish and finfish farming. Some calculations have been carried out by the Scottish Executive based on nutrient loading, however this does not cover issues such as the potential for shellfish production or the possible impacts on native fish stocks of finfish farm expansion. While the Council supports the development and application of modeling to estimate the carrying capacity of sea lochs, it must defer to SEPA and the Scottish Executive for such technical guidance. At the time of writing neither of these organisations could provide comprehensive and authoritative information on carrying capacity due to the lack of survey information and a sufficiently sophisticated modeling tool.

◆ Military use

25. Loch Eriboll has a history of military use stemming from the fact that it is the largest sheltered anchorage on the north coast. It is also quite close to the Cape Wrath Naval Bombardment and Air Weapons Range. The loch was used as a fleet anchorage in both World Wars and during WW2 was used for assembling North Atlantic convoys. German U-boats also surrendered to the Royal Navy here in 1945.

26. In more recent times it has provided an important resource for naval training exercises, particularly for weather avoidance and aspects of amphibious and specialist training activity. This forms part of exercises around the North West coast which take place for three two-week periods per year. There is thus a need to ensure that access and navigational channels within the loch are not unduly hampered.

Figure 7: Military exercise near Ard Neackie



◆ Infrastructure - roads and jetties

27. The main issue in connection with the infrastructure serving the loch is the lack of a public pier or slip. Six points of access are used for boats at present, the main ones being the private harbour at Rispond, the private pier at Port nan Con, and the fish farm shorebase at Port Chamuill. A community-based initiative has identified Port Chamuill as the most suitable location for a new slip and a drive to raise funds is underway. Some concerns have been raised over the cumulative impact of a proliferation of minor landing points on the loch's sensitive natural heritage.

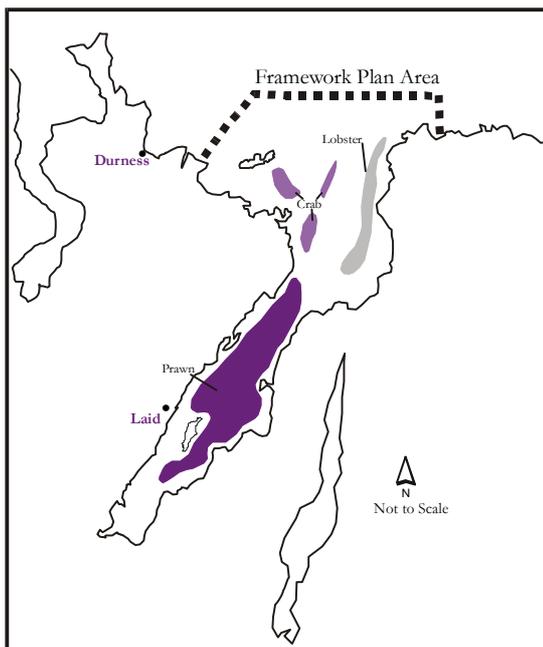
28. The main road that runs around Loch Eriboll, the A838, is mostly single-track with passing places. Both farmed salmon and shellfish from the loch are transported by this road to destinations such as South Shian by Oban and Motherwell. Existing traffic flows are light and it could accommodate a moderate increase. However, if the volume of traffic on the single-track section were to increase, a voluntary code may be necessary to ensure that the vehicles used are a certain amount less than the maximum length and weight permitted by law. Such a code would avoid the imposition of permanent weight and length restrictions, which could have a negative effect on the area's overall economy.

❖ Inshore fishing

29. A number of areas in the loch have been identified as important inshore fishing grounds on account of their crab, prawn and lobster stocks. Around 7, mainly local fishermen target these areas regularly, according to prevailing conditions, though fishermen from outwith the area visit occasionally. Much of the central part of the loch is favoured for prawn fishing and although most of it is insufficiently sheltered for aquaculture, proposals for large scale installations in this area could meet opposition from local fishermen. It is therefore important that any proposed developments take this into account.

30. Interest has been expressed locally in the idea of a Shellfish Regulating Order for the loch. This would allow more local control over the management and harvesting of shellfish stocks but would be unlikely to have any direct bearing on aquaculture.

Figure 8: Main Fishing Grounds



❖ Landscape and visual amenity

31. Loch Eriboll is the only sea loch on the north coast and although it has the typical characteristics of a sea loch, its aspect, geology, and detailed features give it a somewhat different character from those on the western seaboard. The quartzite geology on the eastern side of the outer loch gives this rugged

coastline distinctive colour and landforms, the large number of sea caves and natural arches being particularly noteworthy.

32. The western side of the inner loch, though backed by high hills, has a fairly bland and undifferentiated landscape character for much of its length. The coastline here is fairly uniform and unindented with the main scenic interest being small scale elements such as the bays at the southern end. However, the views out from this area, which is the more populated side of Loch Eriboll, are open and attractive and installations which might occupy the foreground and midground of these need to be designed to minimise adverse impact. The long, low-lying island of Eilean Choraidh is a significant feature locally, particularly as a foreground element in the views from Laid.

33. The eastern side, by contrast, has limestone geology which has created more varied and intimate topography and green pastures around Eriboll farm. Key areas of landscape interest are the much-photographed tombolo of Ard Neackie with its relict limekilns and the rugged shoreline which runs from the mouth of the River Hope to the impressive cliffs of Whiten head.

34. The loch is mostly viewed from the public road (A838) which runs around it for most of its length. It runs higher on the eastern side with the elevated viewpoint overlooking Ard Neackie particularly important in scenic terms. Virtually any aquaculture installations with surface gear in the vicinity of this peninsula would detract from this view. Similarly, aquaculture development along the coastline between Inverhope and Whiten Head would conflict with the area's wilderness character. In other parts of the loch aquaculture installations may be absorbed into the landscape with various degrees of success. However sensitive location, design and colouration of surface gear, and scale will always be key considerations in assessing any proposals for installations in the loch.

35. Most of the best sites for aquaculture in the loch have now been leased and given the need for adequate separation, there is only limited scope for additional leases. The need to minimise landscape impact will therefore be an increasingly important consideration when new leases are being applied for.

◆ Nature conservation

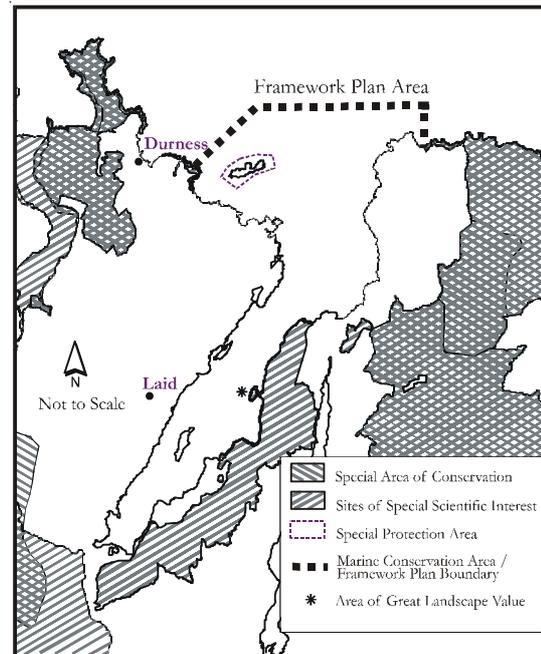
36. Loch Eriboll has a rich variety of habitats and species which is reflected in the presence of a number of nature conservation designations. Of particular relevance to aquaculture is the Marine Consultation Area (MCA) designation which covers the whole loch and identifies the marine environment and bird and seal colonies which it supports as being of particular interest.

37. The MCA citation divides the loch into two regions in respect of its habitats: an outer area dominated by a bedrock shore and an inner region dominated by boulder/shingle/gravel shores. The areas containing the greatest diversity of species are those western shores which receive least wave action, the Ard Neackie peninsula, and the coastal caves in the outer loch. A number of the marine wildlife communities and species recorded here are at the northern limit of their range.

38. Beds of maerl – a type of corraline algae which is listed in the EC Habitats and Species Directive - have been recorded in the channels on either side of Eilean Choraidh and are believed to occur elsewhere in the loch. Maerl is identified as a priority habitat in the UK Biodiversity Action Plan. Beds of sea pen, particularly *Virgularia mirabilis* are also present in the inner loch, favouring areas of soft mud and muddy sand environments with low water movement. A number of mammals are present in the loch including cetaceans, otters and a colony of grey seals at Whiten Head, which is the largest mainland breeding colony in the UK.

39. Two sections of coast are designated as Sites of Special Scientific Interest (SSSI). One of these covers the eastern side of the middle section of the loch on account of its botanical and geological interest. The other covers Eilean Hoan at the mouth of the loch due to its bird interest, specifically the internationally important population of Greenland barnacle geese. This island also forms part of the North Sutherland Coastal Islands Special Protection Area (SPA).

Figure 6: Nature Conservation



40. Other ornithological interests include the loch's role as a winter and spring refuge for the great northern diver. This species is of national importance and up to 45 individuals have been recorded here on a single occasion. There are also significant numbers of wintering red-throated divers, black-throated divers and Slavonian grebes, all listed on Annex 1 of the EC Wild Birds Directive. However it is flocks of eider duck, also a feature of the loch, which have the most relevance for aquaculture, because they pose a particular threat to mussel longlines.

41. The main locational constraint which nature conservation may impose on the development of aquaculture in Loch Eriboll is the need to avoid damage to maerl beds by fish farm moorings. As a general principle the impact of shorebase facilities on inter-tidal habitats also needs to be minimised because of the latter's importance for birds.

42. At the operational level, there is a need for effective but non-injurious methods of predator control. The large local populations of grey seals and eider duck can otherwise create problems for finfish and shellfish farms respectively. Both are protected species. In addition there is the general need to minimise fouling of the seabed and discharges of chemicals from fish farms.

◆ Recreation

43. Tourism in this remote and sparsely populated corner of Highland is primarily based on car touring and enjoyment of the scenery. Game fishing, particularly on the Hope system which flows into Loch Eriboll, is perhaps the most significant specialist activity pursued by visitors. The main draw for most tourists is however the challenge of getting as far north and west as is possible on the mainland (ie Durness and Cape Wrath) rather than Loch Eriboll itself. This overshadowing of the loch partly reflects the lack of facilities which might encourage tourists to stop there. Divers and yachting enthusiasts do however make use of the loch from time to time, wilderness walkers find their way out to Friesgill and Whiten Head at the mouth of the loch, and it has a broad interest for bird watchers. Development of facilities for these niche markets could help to redress the balance and enhance the local income from tourism.

44. The main aim of the plan in relation to recreation is to ensure that the area's scenic character and features are not compromised by unsympathetic development. There is also the need to safeguard key anchorages and wildlife resources and to encourage reasonable separation of fish farms from the mouth of game fishing rivers. The main areas of constraint are indicated on the policy map. Recognised dive sites are also shown on the map for information. However, these tend to be in locations which are currently too exposed for aquaculture so do not represent a major constraint.

45. Further development of recreation in this area will require new facilities and provision of interpretation. Ard Neackie is a site with obvious potential for a high quality development in this regard, however the short tourist season and low flow of visitors in this remote area tends to militate against any major investment. The crofting township of Laid is also a key area where small-scale tourism-related developments have taken place and where more may be possible. The area could benefit from provision of a campsite, for example, because wild camping causes some concerns for the landowner on the east side of the loch.

◆ Archaeology

46. The archaeological interest in and around Loch Eriboll comprises land-based, inter-tidal, and underwater sites. The main areas of interest are Ard Neackie, around the fishing station at Rispond, and the post-Clearances township of Laid. There are three Scheduled Ancient Monuments and two Listed Buildings, one of each relating to the house, pier and disused limekiln on Ard Neackie. A 1997 survey of coastal archaeology by Glasgow University identified thirteen sites in total at this location. Laid has sites of early industry and many inter-tidal features. One underwater site has been recorded adjacent to Kempie Bay: the wreck of HM trawler 'Vulture 2', which was sunk after a collision in 1918.

47. There are no significant conflicts of interest at present between archaeological conservation and aquaculture in Loch Eriboll. However, any proposals for new shorebases, shellfish farms in the intertidal area, or fish farms offshore should seek to avoid any adverse impact on significant archaeological remains.

◆ Game fisheries

48. Wild salmon and sea trout are a key feature of the freshwater environment and angling for them has traditionally generated a significant income for the rural economy of Highland, via the estates and hotels. The Scottish Salmon Strategy Task Force estimated the value of rod fisheries in Highland in 1995 to be at least £88m. However, catches of both species have been in decline nationally for more than two decades with the decline in sea trout giving particular cause for concern. This fragility means that particular care must now be taken to avoid any adverse interactions between intensive fish farming operations and the remaining wild stocks, for example through the management of sea-lice.

49. Sea trout catch statistics for the North Salmon Fishery Region appear to be relatively stable, though there have been large year-to-year fluctuations, and recent figures appear similar to historical values. This contrasts with the position on the west coast where all areas have seen a significant decline in sea trout catches. Salmon catch statistics for the north region have however shown a steep decline in the last two decades, corresponding more closely to the west coast trend.

50. Wild salmon and sea trout are present in two rivers flowing into Loch Eriboll - the Hope and the Polla. Loch Hope is particularly noted for its sea trout fishery. The river Polla was affected by a major fish farm escape in 1989 caused by storm damage to fish cages in the loch. Subsequent research showed that some of the escaped farmed fish migrated into the river and spawned with each other and with native wild fish. The long-term genetic and population implications of this phenomenon are as yet unknown. However, on a precautionary basis at least, this indicates the need for (a) fish farms to be kept well away from the mouths of game fishing rivers, (b) secure cage systems and stock management procedures, (c) contingency plans for the containment of escapes, and (d) measures to control sea-lice and prevent the spread of fish diseases. To this end, there is a need for effective liaison between fish farm operators and game fishing interests to avoid conflicts of interest.

51. It is likely that suitable habitat for freshwater pearl mussels exists in the rivers flowing into Loch Eriboll. Scotland is a major stronghold for this species and although once widespread, the population has declined dramatically. Freshwater pearl mussel is listed in both the EC Habitats & Species Directive and identified as a priority species in the UK Biodiversity Action Plan. Freshwater pearl mussels are dependent on migratory salmonids for the completion of their life cycle, so protection of this species will require the maintenance of healthy wild salmonid stocks.

STRATEGY & AREA POLICIES

52. In light of the considerations above, the framework plan strategy for Loch Eriboll:

- supports continued fish farming activity in the areas currently used for this purpose;
- generally directs development to more sheltered locations in the inner loch with good water circulation which will not encroach on established navigational channels or main fishing grounds;
- seeks as far as possible to avoid conflict with established interests in the aquatic and terrestrial area;
- promotes development in harmony with the landscape character of the area;

- reserves the innermost part of the loch for shellfish farming and environmental interests;
- encourages an appropriate scale of installation in each area and reasonable separation between them; and
- keeps finfish farms at a reasonable distance from the mouth of game fishing rivers.

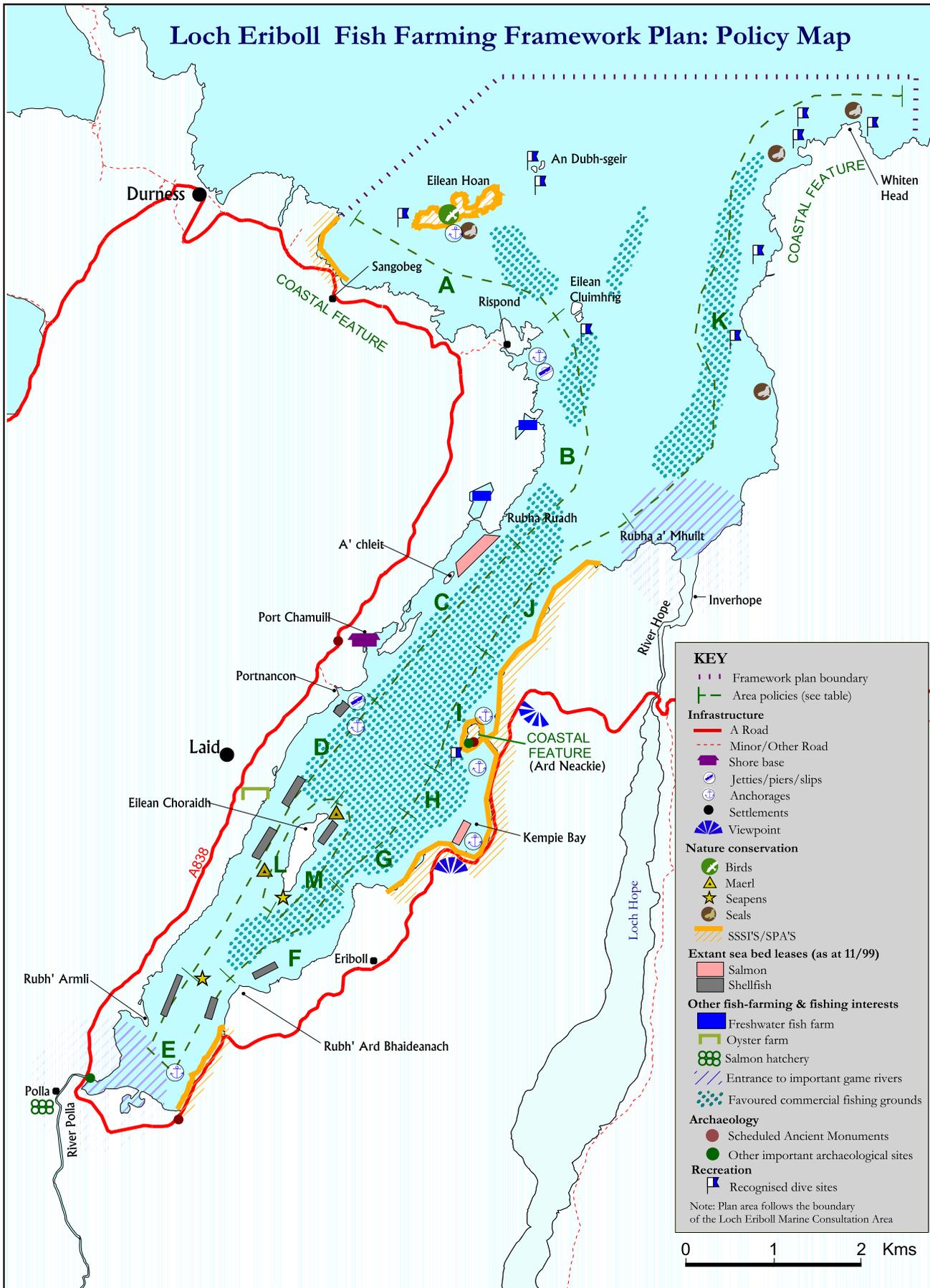
53. The framework plan aims to provide local guidance but it *should be read in the context of guidance produced nationally by the Scottish Executive and others*. This includes a number of advisory documents such as the Scottish Executive's national planning guidance and the reports of the joint Executive/industry working groups. These include the Working Group on Infectious Salmon Anaemia, SERAD's Working Group on Farmed Fish Escapes and the Tripartite Working Group. The Council will, in responding to individual Crown Estate consultations, take such advice into account.

54. The current national planning guidance on the location of marine fish farms, was launched in October 1999. This classified Loch Eriboll as category 3 (the least sensitive of three policy categories applied to the Scottish coast) but introduced a presumption against any expansion of finfish farming on Scotland's north coast. This precautionary approach was adopted by the Executive to minimise the impact of finfish farming on wild salmonid stocks. It does not however preclude the modification or relocation of existing operations.

55. For local policy purposes the loch has been divided into a series of zones labelled 'A' to 'M' which are indicated on the policy map with green dashed lines. These broadly follow the coastline round from Sangobeg in the north-west into the inner loch and then out again to Whiten Head at the loch's north-eastern margins. Eilean Choraidh, the main island in the inner loch has separate policy zones for its east and west sides. The policy guidelines for each zone, along with a brief description of its key characteristics and constraints, are given in the accompanying table. The outer boundary of each policy zone should be regarded as halfway between the coastline to which it relates and the opposite shore.

56. In addition to policy zones the map includes a range of background information on infrastructure and other interests in and around the loch which would be relevant in assessing a fish farming proposal.

Loch Eriboll Fish Farming Framework Plan: Policy Map



AREA POLICIES

Zone	Characteristics/ Constraints	Area Policy
A	<p>The mouth of Loch Eriboll: western margins (Leirinmore to An t-Aigeach)</p> <p>This north-facing coast has exposed but attractive white sand beaches and headlands which are of established tourist interest. There are also low-lying islands and skerries offshore which are noted for their bird and diving interest. Eilean Hoan is a bird reserve and designated as a Special Protection Area.</p>	<p>The exposed nature of this coast means there are few physical opportunities for development and the scenic/ nature conservation interest would preclude most forms of aquaculture at anything other than the smallest scale.</p>
B	<p>Outer loch: west side (Rispond to Rubha Ruadh)</p> <p>Rocky coastline exposed to northerly and easterly winds and swell. Most of this coastline is distant from public roads with the exception of the small harbour at Rispond Bay, which is an attractive sheltered enclave with architectural heritage value. The skerry of Eilean Cluimhrig has been noted for its diving interest.</p>	<p>Presumption in favour of small to medium-scale finfish or shellfish farm installations close to the mainland coastline which are robust enough to withstand exposure in this area and which will not compromise the landscape setting of Rispond harbour.</p>
C	<p>Middle reaches: west side (Rubha Ruadh to Port Chamuill)</p> <p>This is the most sheltered stretch of uninhabited coastline on the loch. It is of relatively low scenic quality, has low-lying land near the shore and a reasonable depth of water nearby so has obvious development potential. This has been exploited to an extent by the existing shorebase. Part of this area was identified in the Ove Arup study as having potential for development of transshipment facilities in connection with the possibility of a superquarry in the hills to the west.</p>	<p>Presumption in favour of small to medium-scale finfish farming or shellfish farming. Larger scale installations may be feasible provided appropriate separation is maintained and due regard is paid to landscape and other interests. Since the loch is relatively narrow at this point, care should be taken not to impede navigation.</p>
D	<p>Inner loch: west side (Portnancon-Laid)</p> <p>The crofting township of Laid directly overlooks most of this stretch of coast. The sensitivities of the local inhabitants therefore have to be taken closely into account. Eilean Choraidh forms an important middleground feature of the views across the loch from Laid so the channel between it and the settlement is particularly sensitive in visual terms.</p>	<p>Scope for limited development of shellfish farming subject to reasonable separation and support of the local community which overlooks this area.</p> <p>Sets of shellfish longlines should not exceed four in number or 300m in length. They should be kept as close to the western shore as possible and be at least 500m apart. Any shellfish rafts should similarly be sited discreetly so as not to detract from views of the island nor to impede navigation.</p>

Zone	Characteristics/ Constraints	Area Policy
E	<p>The head of the loch (Rubh' Armlì to Rubh'Ard Bhaideanach)</p> <p>The head of the loch is generally too shallow for fin fish farming and proximity to the mouth of the River Polla (native fish stocks) is a further constraint on this activity.</p> <p>Relatively low salinity and large numbers of Eider ducks mean this area is less than ideal for shellfish farming, though native oysters are present. The head of the loch has little human presence and is scenically attractive and diverse. This adds a further dimension of visual sensitivity. Around Rubh' Armlì the shoreline is scalloped and shingly with pools while to the south and west the ground rises abruptly from near the shore.</p>	<p>There is limited scope for aquaculture development in this area for the reasons described opposite. Some small scale shellfish leases have been approved at the northern margins of this area and there should be a presumption against further development beyond this level. Finfish farming would not be favoured in this area. The amenity of the shoreline in this area should be safeguarded by careful attention to siting and design of surface gear.</p>
F	<p>Inner loch: east side (Rubh'Ard Bhaideanach to An Druim)</p> <p>Low-lying shoreline of open moorland with shingle beaches fairly distant from the public road. Has a degree of shelter from SW winds but water depths tend to be shallow (less than 10m) except in the more northerly part of this zone. This part of the inner loch has a relatively secluded character and the conspicuous grassy knoll at its southern end is likely to be attractive as a vantage point and picnicking spot.</p>	<p>Small to medium scale shellfish farming would be acceptable in this zone provided there is adequate separation and due regard to other interests. Small scale finfish farming would be acceptable in the northern part of this zone where there is reasonable water depth and a hill slope behind to absorb the visual impact.</p>
G	<p>Inner loch: east side (bay between An Druim and An t-Sron)</p> <p>This area offers limited shelter from SW winds but is constrained by the requirement for boat access (between Eriboll farm and the grazings on Eilean Choraìdh), limited water depth close inshore, and the fact that it is a favoured prawn fishing ground.</p>	<p>Close proximity to the more sheltered Kempie Bay site which is currently used for finfish farming limits the scope for further fishfarm development here on water quality/ separation grounds. Only small scale development compatible with other interests would be feasible, most likely near the eastern shore.</p>

Zone	Characteristics/ Constraints	Area Policy
H	<p>Kempie Bay</p> <p>Kempie Bay is relatively sheltered from SW winds and has been developed for finfish farming. It is still however fairly exposed to the W and requires robust equipment. Proximity to the scenic Ard Neackie peninsula limits the scale of fish farm development which is acceptable.</p>	<p>Presumption in favour of small to medium scale finfish farm or shellfish farm compatible with other interests. Individual longlines should be no more than 200m long and located parallel to the southern shore.</p>
I	<p>Ard Neackie</p> <p>The ‘T’ shaped Ard Neackie peninsula, with its old limekilns, is a key landscape feature within the loch which has merited the construction of a viewpoint and lay-by on the main road above. The buildings on this site are somewhat run-down and there may be some development potential as a tourist facility. The seaward side of the peninsula has been identified as a recreational dive site.</p>	<p>No aquaculture developments should be permitted in the vicinity of the peninsula or its two bounding bays on account of the area’s high scenic value and its recreational potential.</p>
J	<p>The lighthouse coast: Tòrr na Bithe to Rubh’ a’ Mhuilt</p> <p>This area of steep coastline is out of sight of Ard Neackie and generally distant from public roads and habitation. There is an SSSI designation along most of its length and a favoured local fishing ground at its northern end. It is not however as distinguished scenically as the coast between the mouth of the River Hope and Whiten Head. The open bay to the west of Rubh a’ Mhuilt may have limited potential for shellfish farming but has relatively shallow water and is exposed to northerly winds.</p>	<p>Scope for limited shellfish farm development which is compatible with other interests and does not impede navigation through the narrows of the loch. Finfish farming not favoured in the northern half of this area because of proximity to the mouth of the River Hope – an important game fishery.</p>

Zone	Characteristics/ Constraints	Area Policy
K	<p>Outer loch: east side (mouth of the River Hope to Whiten Head)</p> <p>The coastline between the mouth of the River Hope (an important sea trout fishery) and Whiten Head has been identified as regionally important for its coastal landscape and has an impressive array of sea caves and natural arches. It is physically very exposed to northerly and westerly winds and swell so is poorly suited on technical grounds to aquaculture. The heritage value of this remote area is an important constraint. It has unusual and striking coastal landforms and geology, and is noted for its seal colonies and for interesting dive sites in the northern half of the area. Most of the waters close inshore here are favoured local creeling grounds.</p>	<p>Presumption against aquaculture development because of proximity to important game fishing river, scenic and wild land quality, and wildlife interest.</p>
L	<p>Eilean Choraidh: west side</p> <p>The uninhabited island of Eilean Choraidh is an important middle-ground feature in the views from Laid. The island is fairly low-lying and aquaculture developments involving surface gear along its western shore would tend to diminish its scale and natural appearance. Maerl beds have been noted near the southern end of the channel between the island and the Laid shore.</p>	<p>Presumption against fish farm development near west and northern shores of Eilean Choraidh.</p>
M	<p>Eilean Choraidh: east side</p> <p>The eastern shore of Eilean Choraidh, especially at its northern end, has a degree of shelter from westerly winds. It is relatively secluded - distant from habitation and public roads – and could support a limited scale of aquaculture development. The low relief of the island means however it can only readily absorb the visual impact of a relatively small area of cages or</p>	<p>Presumption in favour of small scale finfish or shellfish farming which can be accommodated without prejudice to the landscape setting of the island or other interests.</p>

NB: “Small” and “medium” scale are relative terms. However as a guide for the purpose of this plan, a finfish farm of up to about 2000 sq.m. cage area would be regarded as “small” and one of up to 4000 sq.m. would be regarded as “medium”. A “small” shellfish farm using the longline system would employ lines of up to 200m length to a maximum of 4 lines. A “medium” shellfish farm would employ up to 8 lines of 200m length each, up to 5 lines 300m each, or up to 4 lines 400m each. All other things being equal, the longer lengths of lines are harder to accommodate successfully in the landscape. A “small” shellfish farm using rafts would employ up to 4 rafts each 10m square, and a “medium” one would have up to 4 rafts each 20m square.

APPENDIX 1- EXTANT LEASES AS AT JULY 2000

CEC lease reference & approval date	Location and species	Permitted gear	Lease
SU-17-14 February 1994	Rubh Armlì <i>Mussels</i>	8x12sqm rafts	10 years
SU-17-17 November 1998	Laid <i>Mussels</i>	4x300m longlines	10 years
SU-15-5 January 1993	Port nan Con <i>Scallops</i>	5x100m longlines	10 years
XX100/693A April 1989	Sian Bay <i>Salmon</i>	14x70m cage (circumference) circles	20 years
SU-17-9 (Pre-consultation era lease)	Kempie Bay <i>Salmon</i>	20x15sqm cages	20yrs
SU-17-15 May 1997	Rubh Ard Bhaidennach (south) <i>Mussels</i>	3x200m longlines	10 years
SU-17-16 October 1998	Rubh Ard Bhaideanach (north) <i>Mussels</i>	4x340m longlines	10 years
SU-17-18 May 1999	Eilean Choraidh (eastern side) <i>Mussels</i>	3x250m longlines	10 years
SU-17-19 September 1999	Eilean Choraidh (west side) <i>Mussels</i>	6x300m longlines	10 years

APPENDIX 2- BIBLIOGRAPHY

Brady.K, Morris.C et al (1997): North Sutherland Survey: Coastal Zone Assessment. Kyle of Durness to Torrisdale Bay. Volume 1: Report for Historic Scotland

Edwards, A., Sharples, F.(1986): Scottish Sea Lochs: a Catalogue

Moss.D et al (1986): Report on a Sublittoral Survey of Loch Eriboll - (Sutherland)

Nature Conservancy Council (1990): Marine Consultation Areas: Scotland

Ridley. G (1985): Dive North-West Scotland

Scottish Executive Rural Affairs Department (1999): Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters: Policy Guidance Note

Vinycomb.V (1976): Clyde Cruising Club, Sailing Directions and Anchorages: North & North East Coasts of Scotland

APPENDIX 3 - ORGANISATIONS CONSULTED DURING PLAN PREPARATION

Aquascot Group Limited
Association of District Fishery Boards
Association for Protection of Rural Scotland
Association of Scottish Salmon Fishery Boards
Association of Scottish Shellfish Growers
Association of West Coast Fisheries Trusts
Atlantic Salmon Trust
Caithness and Sutherland Enterprise
Crofters Commission
Crown Estate
Dionard District Salmon Fishery Board
Dunstaffnage Marine Laboratory
Durness Community Council
E.G. Fishings
Eriboll Estate Trust
Federation of Highlands & Islands Fishermen
Glasgow University Archaeology Research Division
Highlands and Islands Enterprise
Highlands and Islands Fishermans Association (Static Gear)
Highlands of Scotland Tourist Board
HM Naval Base Clyde
Hope & Polla District Fishery Board
Hydro Seafood GSP
Ken & Lesley Black, Port-na-Con Guesthouse, Laid
Laid Grazings Committee
Maritime and Coastguard Agency
North & West Salmon Fishery District Boards
North of Scotland Water Authority
Northern Lighthouse Commissioners
Rispond Estate
Royal Society for the Protection of Birds
Royal Yachting Association (Scotland)
Salmon and Trout Association
Salmon Fisheries
Scottish Anglers National Association
Scottish Crofters Union
Scottish Environment Link
Scottish Environmental Protection Agency
Scottish Landowners Federation
Scottish Natural Heritage
Scottish Quality Salmon
Scottish Wildlife Trust
Sea Fish Industries Authority
Scottish Executive
 -Rural Affairs Department
 -Development Department
 -Fisheries Protection Agency
 -Transport Division
Vibel Societe Anonyme
West Highland Anchorages & Mooring Association
West Sutherland Fisheries Trust

