

POLICY ZONE E: BONAWE QUARRY TO ARDMADDY BAY

LANDSCAPE CHARACTERISTICS

The landscape in Policy Zone E is sheltered, narrow fjord like with relatively still water, although strongly north and west winds can funnel up the glen. The northern shore is particularly wooded, with modest areas of semi-natural woodland and some commercial forest. The southern shore has some areas of unimproved pasture around the River Noe and Inverliver Bay. The rugged landscape has a strong sense of naturalness, and the sense of remoteness increases as the loch extends inland away from Taynuilt. The quarry and shoreline development features as part of the landscape at the south western end of loch.



SEASCAPE CHARACTERISTICS

Policy Zone E has an enclosed and sheltered feel. The maritime character is limited to a small intertidal reach and presence of shell fish lines and some modest marine based activity. The rocky coastal edge rises steeply from the water directly to high mountains creating a strong sense of enclosure. The indented shoreline, with well defined small scale bays is emphasised by promontories and occasional islands. Sections of coast have a mix of mud, sand and pebble.

ACCESS

Accessibility is limited to rough private coastal roads on either side of the loch and via boat. There are a number of private slipways/piers in this zone, including a slipway/pier at Port na Mine, a small jetty south of Port an Dobhrain, a slipway at Inverliver Bay, and a pier near Dail.

VISUAL AMENITY

The views focus along the length of loch, and are frequently elevated, encountering each bay individually in sequence. Dramatic peaks rise directly from the water's edge and are reflected in the loch surface with frequent panoramic views.

SETTLEMENTS

Settlement is very sparse, limited to a few individual houses on the south side of the loch. A bothy at Cadderlie is run by the Mountain Bothies Association.

CURRENT USES

Refer to policy zone E map for locations of current activities.

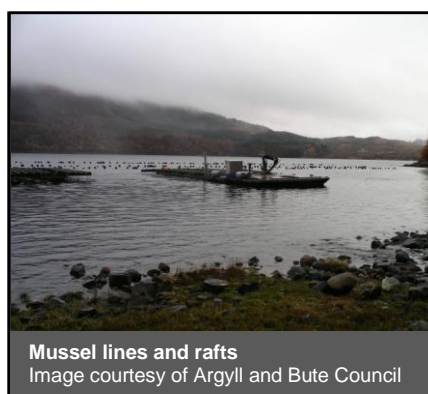
Aquaculture

A considerable number of shellfish and finfish leases are present in this policy zone. Details for each site are listed in the following table. Dawnfresh Farming Ltd. operate their trout farm sites from a shore base at Inverawe (Port na mine).



Current Aquaculture Sites						
Location/Site Name	Species	Consented Equipment	Maximum Biomass	Operator	Shore-base Location	Development Status
Port na Mine	Trout	10 x 60 m circumference cages plus 4 x feeder rafts	455	Dawnfresh Farming Ltd.	Inverawe	Active
*Inverawe East	Trout	6 x 50 m circumference cages, plus 4 x (10 m x 10 m) cages for trout, plus 7 x 12 msq mussel rafts and 4 x 220 m longlines, for shellfish	250	Dawnfresh Farming Ltd.	Inverawe	Active
*Inverawe West	Trout	Equipment as above	250	Dawnfresh Farming Ltd.	Inverawe	Active

*All equipment at Inverawe East and West is in rotation.



Current Aquaculture Sites						
Location/Site Name	Species	Consented Equipment	Maximum Biomass	Operator	Shore-base Location	Development Status
North of Barran Dubh	Mussels	6 x 300 m plus 2 x 200 m longlines		Celtic Sea Ltd.	Taynuilt	Fallowed/ not active
Sròn nam Feannag	Mussels	1 x 9 msq mussel raft, plus 3 x 220 m and 2 x 180 m longlines		Kames	-	Fallowed/ not active
South west of Sgeir Lag Choan	Mussels	17 x 12 msq mussel rafts		Forera	-	Fallowed/ not active
North east of Sgeir Lag Choan (Craig Point)	Mussels	8 x 150 m longlines		Black Isles Seafoods	-	Fallowed/ not active
Craig Bay and Camas na Cùirte	Mussels	2 sites with 23 x 200 m longlines (over both sites)		Celtic Sea Ltd.	Taynuilt	Fallowed/ not active
Port Mor	Mussels	6 x 12msq mussel rafts plus 5 x 100 m longlines		Black Isles Seafoods	-	Fallowed/ not active

Fishing

Creeling activities occur close to the shore, north from Balure and Rubh' Àird an Droighinn coastlines leading up to Aird Trilleachan in Policy Zone F.

Recreation

Angling

Sea angling is common at the south end of the policy zone, and a number of shore based marks are present on the north side of the loch. These are accessed from the private road to Barrs. A number of these locations have been affected by litter left by anglers/campers. Boat angling is also popular in this part of Loch Etive with charter, hire and private boats normally launching from Taynuilt.

Sailing

Recreational boating and to a lesser extent, sailing occur throughout the policy zone. Charter boats also utilise this part of the loch. There are four recognised anchorages.

Diving

There are six scenic dive sites and two wrecks in this policy zone: Rubh' Àird an Droighinn; Island of Sgeir Lag Choan; McKinley's Cliff; Rubha na Creige; Port na Mine Cliff-Face and the seal haul-out site at Àird Eilein. The first wreck is located at Rubh' Àird an Droighinn and the second at Port na Dobhrain. Boat access is generally advisable for the majority of upper loch dive and wreck sites, although McKinley's Cliff, Rubha na Creige and Port na Mine Cliff-Face can be accessed via the shore.

Coastal Paths

A proposed core path/coastal path commences at Bonawe and finishes at Glen Etive. There is also a coastal path (right of way) to Port Na Mine that commences from Inverawe Country Park.



Commercial Shipping

Timber transshipment vessels, operated by Scottish Woodlands Ltd pass through Policy Zone E, whilst en-route to the transshipment pier at Glen Etive.

Infrastructure and Discharges

Coastal infrastructure in this policy zone is all privately owned and there are no consented discharges via sea outfalls present. There are four private moorings at Rubh' Àird an Droighinn. The Scottish Association for Marine Science have a scientific monitoring buoy, located in the Bonawe deep basin, which is connected by cable to the shore as part of an ongoing long-term monitoring project¹.

DESIGNATIONS

Refer to policy zone E map for areas covered.

Argyll & Bute Development Plan (Structure and Local Plan) Designations

- The entire coastline (south of Rubha Bharr and Ardmaddy Bay to Rubh' Àird an Droighinn) is classified as Sensitive Countryside.
- The land stretching south east of Balure to Inverawe Country Park is a Rural Opportunity Area.
- The coastal hinterland adjacent to this policy zone is part of the North Argyll Area of Panoramic Quality.

¹ <http://www.hypox.net/>

Other Designations

- The coastal strip, Rubh Àird an Droighainn to Cadderlie and Barran Dubh of is part of the Loch Etive Woods Special Area of Conservation (SAC), designated for its broad-leaved, western acidic Oak woodland, mixed and Yew woodland.
- Bonawe to Cadderlie SSSI is notified for its upland oak woodland and Caledonian igneous rock and Barran Dubh SSSI for its upland Oak Woodland and bryophyte assemblage.
- The Loch Etive Marine Consultation Area covers the entire marine area of this policy zone.
- The 'Loch Etive Coastal Strip' Shellfish Growing Water and Loch Etive Shellfish production Area encompasses the entire marine areas of this policy zone.

BIODIVERSITY

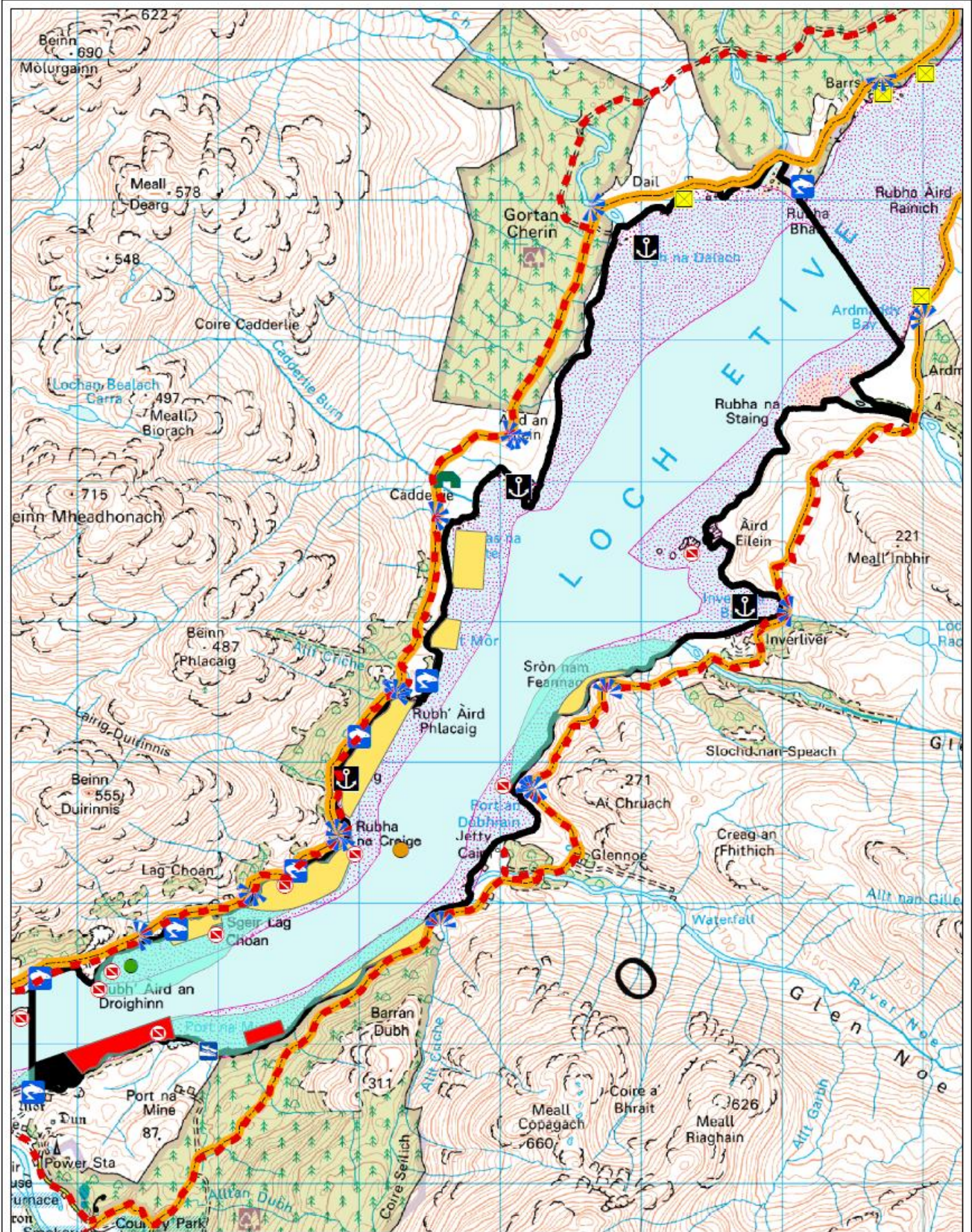
- The River Kinglass is the largest river in this policy zone and supports sea trout and salmon. The smaller rivers Noe and Liver, Abhain Dalach and Alt Easach are primarily habitats for recruitment of sea trout.
- The skerries at Àird Eilein (Currachd Liath & Sgeirean Inverliver) are an important haul-out site for common seals, with 27 seals counted by the Sea Mammal Research Unit in August 2007.
- Otter and seabirds are often sighted along the coast at Àird Eilein close to Inverliver Bay. East of Dun Mor is a sensitive breeding site for Grey Heron.
- The Barran Dubh SSSI is one of the remaining fragments of ancient semi-natural upland oak woodland around Loch Etive.
- Steep bedrock cliffs are present just south of Rubha na Creige. Known as Mackinley's cliff, this rock wall and boulder slope extends to over 40 m depth and supports shallow water communities of mussels and filamentous green algae, followed in deeper water by a community characterised by the brachiopod *Neocrania anomala* and solitary ascidians (seasquirts), sea anemones, cup corals and polychaetes.
- *Rhododendron ponticum* can be found spreading at Barrs and Glen Etive on the west shore of this policy zone.

HISTORICAL FEATURES

Coastal and marine historic features identified within and adjacent to this policy zone are:

- Dun Leigh, dun 200 m East, North East of Balure - a scheduled ancient monument.
- Inverawe House - category B listed building.
- Unscheduled sites include: Glen Kinglass, Furnace; Aird Eilean Enclosure; and Corn drying kiln, Inverliver.

POLICY ZONE E MAP – Current Uses & Activities

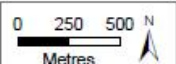


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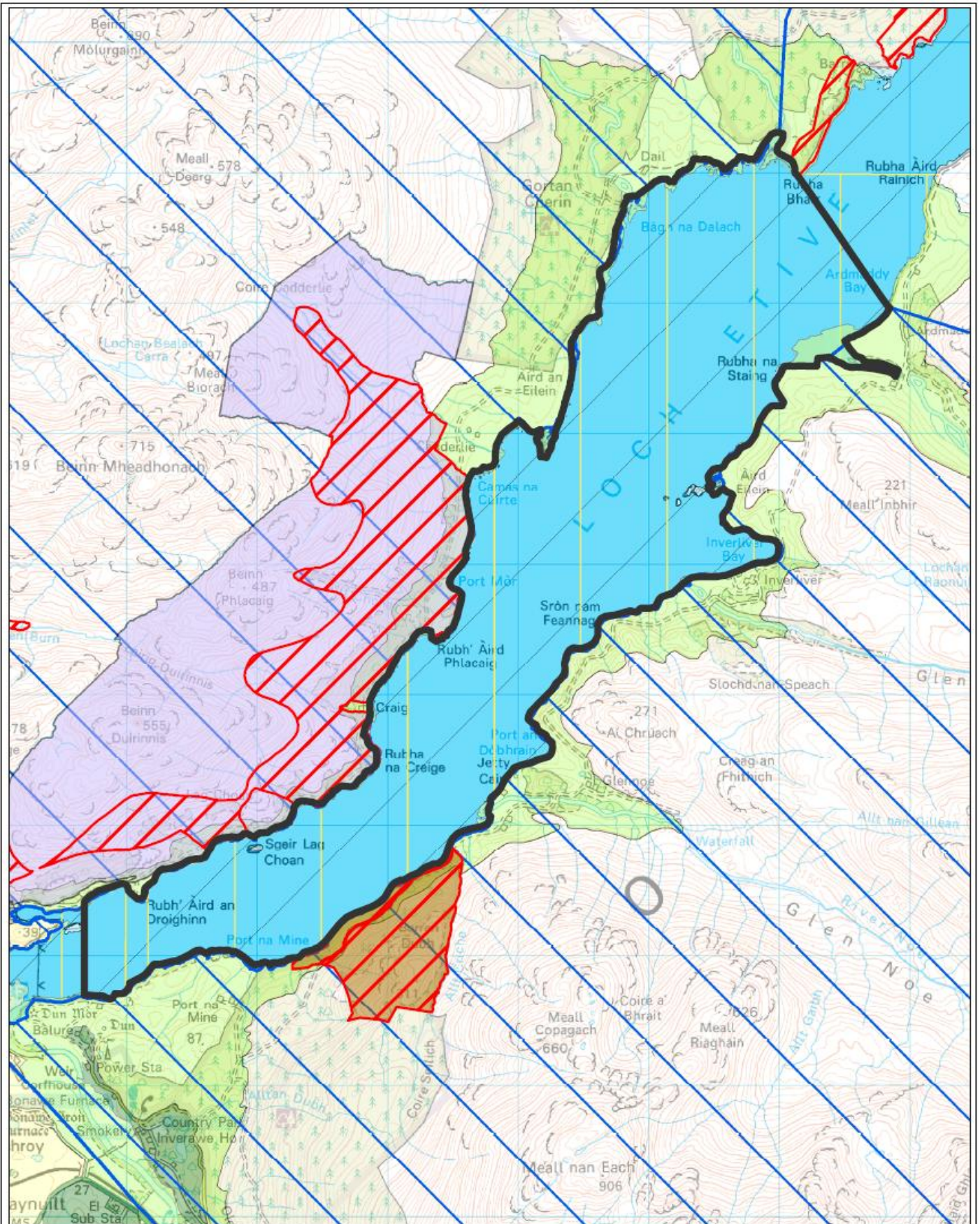
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|--------------------------|---------------------------|---------------------------|-------------------------|------------------|--|
| Aquaculture Sites | Commercial Fishing | Recreation | Bothy | Anchorage | Infrastructure & Discharges |
| ■ Finfish | ■ Creeling | ○ Dive sites | ■ Bothy | ⚓ Anchorage | ■ Pier/Jetty |
| ■ Shellfish | | ■ Preferred angling areas | ■ Coastal walking route | ⚓ Slipway | ○ Research Mooring |
| ■ Mixed Species | | ■ Shore fishing | ■ Proposed Core Path | ⚓ Viewpoint | ○ Private Mooring |



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POLICY ZONE E MAP – Designations



Legend

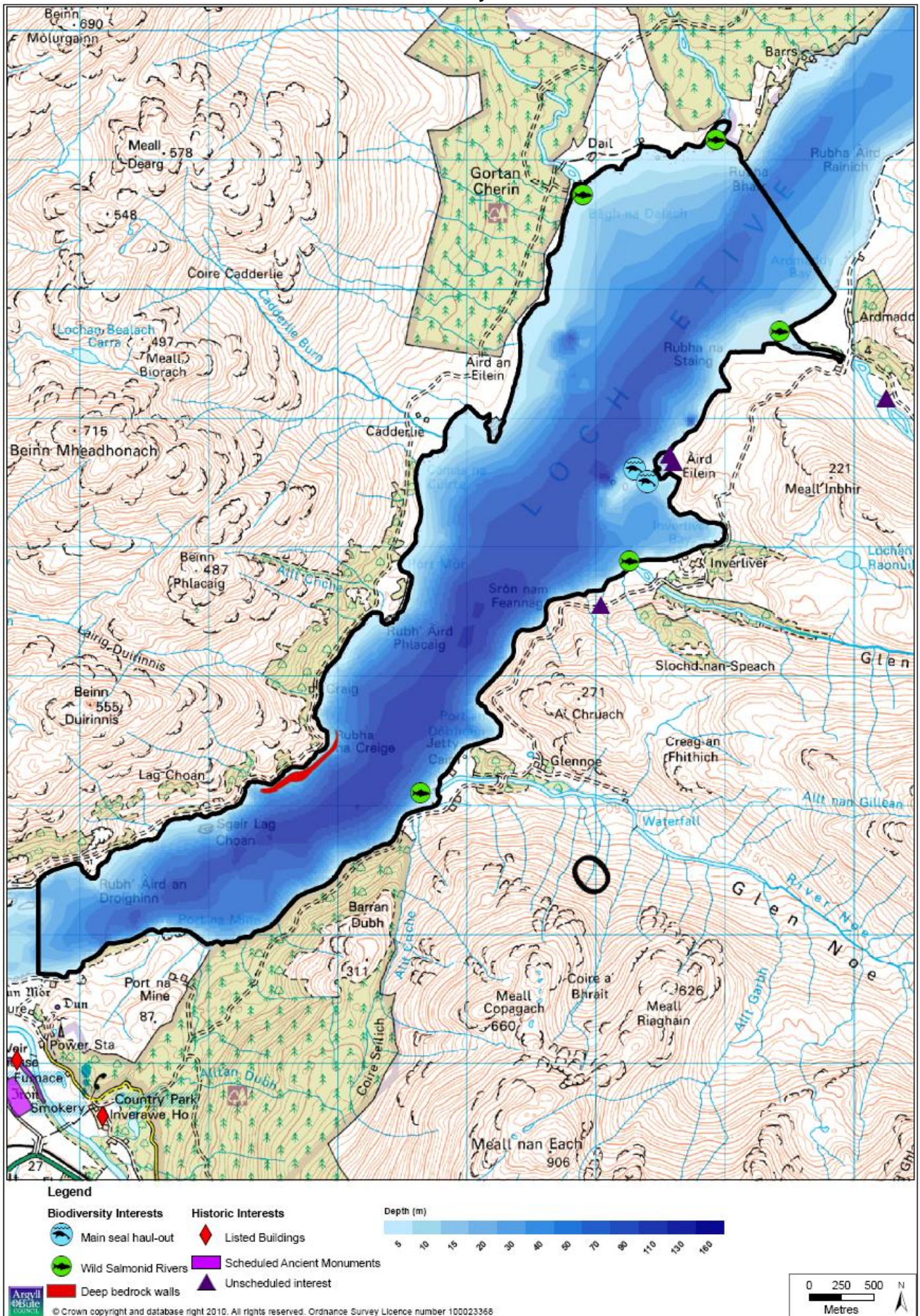
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| Development Plan Designations | Sensitive Countryside | Other Designations | Marine Consultation Area |
| Countryside Around Settlement | Very Sensitive Countryside | Loch Etive Woods SAC | Shellfish Growing Area |
| Rural Opportunity Area | Settlement Zones | Barran Dubh | Shellfish Production Area |
| | Areas of Panoramic Quality | Bonawe to Cadderlie | |



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POLICY ZONE E MAP – Biodiversity Interests & Historic Features



OPPORTUNITIES AND CONSTRAINTS FOR FUTURE USE AND DEVELOPMENT

Opportunities²

<i>Future Use</i>	
Aquaculture	The 'Loch Etive Coastal Strip' Shellfish Growing Water extends throughout the length of the policy zone and coastal water quality should be maintained at an appropriate standard for shellfish growing or ranching.
Forestry management	Deconiferise the Cadderlie forest area after felling and revert to native woodland and open ground, leading to improvements for landscape and biodiversity.
Recreation	Better promotion of established coastal paths and walking routes in the area and potential to incorporate historic, cultural and wildlife interests into wildlife tours and boat trips.
	Linking the core path (Bonawe to Glen Etive) with the West Highland Way, National Cycle Route at Taynuilt and Oban to Fort William cycle route, as a circular off-road cycle route. This could be considered as a potential aspirational route in the Argyll and Bute Core Path Plan.
	Promote the need for responsible behaviour in order to manage and reduce existing problems of litter from recreational users.
Access	Collection and drop off of visitors by boat wishing to walk or cycle part of the area.
Scientific Research	Continued monitoring of the deep water basin east of Bonawe Narrows as an observatory site looking at the effect of bottom water renewal frequency and duration on climate-driven hypoxia (low oxygen conditions) in a sea loch with limited tidal exchange.

<i>Development</i>	
Aquaculture	Opportunity to maximise operations and production in this part of the loch through consolidation or rationalisation of existing sites.
Timber Transhipment	Upgrading of old pier/jetty at Barrs or Dail to transport timber by barge from the Forestry Commission plantations at Cadderlie and Barrs.

Constraints

<i>Future Use</i>	
Height restriction (Boat access)	Air draught restriction at Connel Bridge and at Bonawe Narrows limits the size and design of commercial vessels which can visit this part of the loch for timber extraction.
Wildlife (Habitats and species)	Recreational and commercial activities need to ensure they do not adversely affect the important features of the Loch Etive Woods SAC, Barran Dubh and Bonawe to Cadderlie SSSI, and sensitive wildlife such as otters. The protection and preservation of existing flora and fauna may be enhanced by the level of inaccessibility.
Access	Timber extraction in this policy zone is restricted to transport by sea as upgrading road access to the nearest public road would be prohibitive.
	Vehicular access to the shore is restricted to single lane tracks of variable quality running up to Barrs on the north side of the loch and Glen Kinglass on the south.

² Opportunities identified are indicative, subject to obtaining the required consents, and do not preclude development applications and activities elsewhere.

Recreational boating	There are no access points for launching boats or moorings in this policy zone.
Areas sensitive to disturbance	Common seals and seabirds utilising the skerries at Àird Eilein could be disturbed by boats and other water craft, and people landing on the islands.

Development	
Landscape	The intimate scale of small bays is easily dominated by marine development.
	The remote rugged landscape, generally undeveloped and relatively inaccessible is dominated by a sense of naturalness which can be compromised by marine development.
	Panoramic views from elevated footpaths, particularly on the south shore of the policy zone are sensitive to marine development.
	Organic forms and irregular shapes characterise this landscape and geometric structures are therefore more prominent.
	Existing aquaculture development is already very extensive, occupying almost every bay and the foreground to most views.
Historic interests	The coastal setting of Dun Leigh, dun 200m ENE of Balure is sensitive to poorly sighted marine and coastal development.
Wild Migratory Salmonids	New salmon or trout farms in this policy zone would increase the risk of interactions between farmed and wild salmonids, from disease and escapes.
Hydrography	The sides of the loch slope steeply in the western part of this policy zone, making anchoring of aquaculture sites difficult and the stability of sediments may be an issue.
Water exchange	Limited water exchange in this policy zone may restrict aquaculture development in terms of availability of plankton for shellfish and flushing of excess waste/nutrients from finfish farming.
Natural Heritage	Seals and seabirds could be disturbed by marine development immediately adjacent to the skerries at Àird Eilein (Currachd Liath and Sgeirean Inverliver).
Commercial fishing	Access to creel fishing ground could be restricted by additional marine development.

POLICY GUIDANCE³

Where the following policy guidance indicates general support or a presumption in favour of development, this will be subject to any proposal being consistent with the general policies detailed in Section 4 of this plan.

	Justification/comments
1. Support efforts of mussel farming companies in management of <i>Mytilus trossulus</i>.	The eradication and management of <i>Mytilus trossulus</i> is key to the future of a sustainable mussel farming industry in Loch Etive.
2. The culture of seaweed and use of polyculture is	There is interest from some existing aquaculture companies in growing algae, either alongside

³ Policies do not preclude the submission of development applications in areas where presumption against development has been identified.

encouraged.	existing production or as an alternative to mussel farming.
3. Future proposals to consolidate or reorganise existing development sites will be supported where proposals are consistent with Policy LE AQUA 1.	<p>Future consolidation/rationalisation of existing developments may offer the greatest opportunity for maximising production of trout and mussel farming in Loch Etive.</p> <p>There may be opportunities to reduce the number of developed bays while increasing the size of some existing sites.</p>
4. Presumption against new aquaculture developments in addition to existing sites.	<p>Potential to accommodate additional marine aquaculture development has not been identified in this policy zone, largely due to number of existing sites (developed & undeveloped) and this part of the loch is therefore considered to have reached landscape capacity.</p> <p>The most appropriate locations are already developed and some existing development occupies locations which are considered to be sensitive to development.</p>
5. Safeguard SAMS research buoy in Bonawe deep water basin.	In order to avoid damage to research equipment, recreational or commercial vessels should not tie up to this buoy.
6. Support for timber transshipment from Cadderlie and Barrs.	Current road infrastructure is not suitable for timber transport by road.
7. Presumption against marine development immediately adjacent the skerries Currachd Liath and Sgeirean Inverliver.	These skerries are a haul out site for up to 30 common seals and are visited regularly by local tour boat operators. Marine development close to these skerries may disturb this species.

ADDITIONAL GUIDANCE ON DEVELOPMENT OPPORTUNITIES

TABLE PZE - Guidance on location, scale and other considerations

Development Type	Location	Suggested Maximum Scale	Comments
Aquaculture consolidation/rationalisation	n/a	n/a	<p>Proposals should be consistent with Policy LE AQUA 1.</p> <p>Particular consideration should be given to:</p> <ul style="list-style-type: none"> opportunities to reduce the number of developed bays while maintaining production by increasing the size of other sites; any available spatial guidance on areas that are most suitable for development; potential environmental benefits, including landscape, habitats and species and wild migratory salmonids; potential benefits in terms of site management, including disease control and escapes; potential benefits to communities and commercial and recreational activities; and increased economic viability and socio-economic benefits. <p>The west of this zone is a transitional landscape leading from the economic activity around Taynult/Bonawe to a more remote and rugged landscape to the east. The easternmost density of</p>

			<p>aquaculture compromises the more remote qualities. Preference therefore for reducing development in the eastern part of this policy zone alongside increasing development in the western part.</p> <p>Any proposal to significantly increase trout farming in this policy zone should consider whether the increased nutrient and waste input would exacerbate naturally occurring low dissolved oxygen levels.</p>
Timber transshipment	Barrs/Dail	n/a	Any improvements to or redevelopment of the existing pier/jetty should take account of existing recreational use of this infrastructure.

CONSULTATION FOR DEVELOPMENT OPPORTUNITIES

Prospective developers (during pre-application scoping) and Council planning officers (during assessment of applications) are encouraged to consult with the following individuals and organisations in addition to the normal statutory consultees. A list of statutory consultees for different development consents and licences is listed in Appendix VII. Contact details for statutory and non-statutory consultees are provided in Appendix VIII.

Consultees	Aquaculture	Timber transshipment
Ardchattan Community Council	✓	✓
Ardchattan Estate	✓	✓
Argyll District Salmon Fishery Board	✓	
Argyll Fisheries Trust	✓	
Black Isles Seafoods	✓	
Celtic Sea Ltd	✓	
Dalriada Diving	✓	
Dawnfresh Farming Ltd.	✓	
Forera Ltd	✓	
Inverawe Estate	✓	
John and Ronnie Campbell (Marine Pilots)	✓	✓
Kames	✓	
Petard Investments Limited	✓	
Scottish Canoe Association	✓	
Scottish Federation of Sea Anglers	✓	✓
Scottish Sea Angling Conservation Network	✓	✓
Scottish Sub-Aqua Club	✓	
Small Isles and Mull Inshore Fisheries Group	✓	✓
Taynuilt Community Council	✓	