

Scotland's National Marine Plan

Summary of Policies Considered in relation to the proposed Seaweed Farm for GreenSea Solutions (GSS) at East of Oronsay, Loch Sunart

5th July 2020

Scotlands National Marine Plan 2015

Summary of policies considered

The following table summarises the consideration that the applicant (GSS) has given to the policies and aims of Scotland's National Marine Plan. The left hand column sets out the policy wording from the March 2015 version of the Marine Plan and the right column sets out how this policy has been considered during the applicants planning for the development, through pre-application consultations and the License Application Process.

Policies not considered

The following policies have not been considered in bringing forward this development proposal. These policies either have no bearing on the actions of the developer and relate to the actions of regulators or third parties or relate to marine use where there is no interaction with the proposed development.

Sea Fisheries (FISHERIES 1, 2 and 5) Aquaculture (AQUACULTURE 1, 2, 4, 7, 8, 9 and 12) Recreation and Tourism (REC AND TOURISM 4 and 5) Oil and Gas (All Policies) Carbon Capture and Storage (CCS) (All Policies) Offshore Wind and Marine Renewable Energy (All Policies) Shipping, Ports, Harbours and Ferries (TRANSPORT 2-7) Submarine Cables (All Policies) Defence (Policies 2-3) Aggregates (All Polices)

GENERAL POLICIES	
NMP POLICY	CONSIDERATION AND COMMENT
GEN 1 General planning principle: There is a presumption in favour of sustainable development and use of the marine environment when consistent with the policies and objectives of this Plan.	This document demonstrates the consideration that has been given to the policies and objectives of Scotland's National Marine Plan in bringing forward the proposed development. The burgeoning seaweed farming industry in Scotland provides an exciting opportunity for a sustainable new food production system. GSS plan to use practical, non-invasive seaweed farm grids that integrate well with the local marine environment and can be scaled accordingly with site-specific requirements. This method of farming on grids will provide a sustainable alternative to the dredging of wild seaweeds, which has come under pressure in recent years.
GEN 2 Economic benefit: Sustainable development and use which provides economic benefit to Scottish communities is encouraged when consistent with the objectives and policies of this Plan.	Seaweed farming is an embryonic industry on the West Coast of Scotland, and development will allow it to provide further contribution to the economy, both locally and nationally. Furthermore, this area is heavily reliant on seasonal income during holiday periods, particularly in the summer months. A seaweed farm in this area will provide alternative employment outside of these peak periods, during seed deployment in Winter and harvest in Spring.
provides social benefits is encouraged when consistent with the objectives and policies of this Plan.	Historically, seaweed farming was a thriving industry in Scotland. By rejuvenating the industry in this area, GSS hope to encourage a sense of natural and historical well-being in both residents and visitors. We would like to allow visitors to our site, and in the future would consider providing educational tours regarding the history and future of seaweed farming as a Scottish industry.
GEN 4 Co-existence: Proposals which enable coexistence with other development sectors and activities within the Scottish marine area are encouraged in planning and decision making processes, when consistent with policies and objectives of this Plan.	

must act in the way best calculated to mitigate, and adapt to, climate change.	Apart from short seeding and harvesting periods each year, there will be little to no carbon or greenhouse gas emissions from the seaweed farm. A small amount of carbon may be sequestered from each crop. No artificial chemicals or nutrients will be required during the growth period of the crop. There is some evidence that seaweed farms of this nature may also provide protection against coastal erosion.
GEN 6 Historic environment: Development and use of the marine environment should protect and, where appropriate, enhance heritage assets in a manner proportionate to their significance.	The proposed development will not impact on marine heritage assets as set out in the National Marine Plan. The farm site sits outside the boundary of the nearby historic MPA at Mingary. There will be no interaction with, or marine activity close to, this area.
GEN 7 Landscape/seascape: Marine planners and decision makers should ensure that development and use of the marine environment take seascape, landscape and visual impacts into account.	Consideration of the Landscape, Seascape and Visual Impact of the proposed development has been given consideration in site selection by the developer. Seaweed farms are inherently low visual impact - the seaweed grid structure will be very low profile, sitting approximately two meters below the surface and barely visible to the naked eye. The only visible aspects will be marker buoys designating the outer limits of the structure, which are required to comply with marine safety regulations. The site, discreetly tucked into the eastern shoreline of Oronsay Island, will be hidden from the key tourism routes of the Ardnamurchan peninsula. Oronsay Island itself is inaccessible by road.
GEN 8 Coastal process and flooding: Developments and activities in the marine environment should be resilient to coastal change and flooding, and not have unacceptable adverse impact on coastal processes or contribute to coastal Flooding	It is considered that, as a floating structure, the proposed development is resilient to coastal change and flooding and furthermore we can foresee no negative impacts of the farm site on coastal process and flooding. It will not have an adverse impact on coastal processes and could potentially provide protection against coastal erosion.
 GEN 9 Natural heritage: Development and use of the marine environment must: (a) Comply with legal requirements for protected areas and protected species. (b) Not result in significant impact on the national status of Priority Marine Features. (c) Protect and, where appropriate, enhance the 	 In bringing forward the proposed development consideration has been given to the presence, in the wider area of protected species, and the location of the development within Loch Sunart. (a) The farm site lies within the Sunart SAC, which is protected for its rocky reef feature and wild otter population. We will work closely with Scottish Natural Heritage (SNH) to ensure that we comply with all legislation set out to protect these and other species, including (but not limited to) seals and nesting birds. Oronsay East also lies within Loch Sunart Marine Protected Area (MPA, which has the following protected features: flame shell beds,

health of the marine area.	 northern feather star aggregations on mixed substrata, and serpulid aggregations. On comparing surveillance charts provided by Nature Scotland, there are no visible conflicts between these protected features and the intended location for our site. (b) We will use 'eco-anchors' that require shorter, lighter mooring lines, which have limited interaction with the seabed during movement compared to conventional mooring systems and as a result to not cause any damage to the seabed (c) Seaweed grows without the need for chemical fertilizer or artificial nutrient. It is known to absorb waste from both terrestrial activity and other forms of aquaculture, which may be beneficial for the surrounding water quality.
GEN 10 Invasive non-native species: Opportunities to reduce the introduction of invasive non-native species to a minimum or proactively improve the practice of existing activity should be taken when decisions are being made.	The farm structure and site related equipment are to be assembled locally reducing the opportunity for INNS to be transferred onto the site from further afield. A strict biosecurity plan will be followed by employees and marine vessels working on the farm site. Fertile material for seeding will be collected from native seaweed populations found on rocky foreshores and harbours close to the farm site. Seed culture will be developed at a secure hatchery unit and transported by RIB to the farm site. Following harvest, the seaweed crop will be processed in a facility close to the site at Glenborrodale on the Ardnamurchan Peninsula.
GEN 11 Marine litter: Developers, users and those accessing the marine environment must take measures to address marine litter where appropriate. Reduction of litter must be taken into account by decision makers.	The Applicant fully supports the principles of waste minimisation and management. Within the developer's policies in relation to Marine Litter, zero tolerance of overboard waste and shoreline litter collection. Growing seaweed is an extractive form of aquaculture which is Any waste generated by the farm site will be disposed of on land through commercially approved waste disposal services.

GEN 12 Water quality and resource: Developments and activities should not result in a deterioration of the quality of waters to which the Water Framework Directive, Marine Strategy Framework Directive or other related Directives apply.	Water Quality will not be adversely impacted by the proposed development. Seaweed does not require fresh water or produce water waste during cultivation. It may be beneficial to surrounding seawater, absorbing waste products from terrestrial agricultural activities and nearby aquaculture sites.
GEN 13 Noise: Development and use in the marine environment should avoid significant adverse effects of man- made noise and vibration, especially on species sensitive to such effects.	In bringing forward the proposals the developer has considered the potential impact of noise from the site on human receptors on the shore. There will be no noise pollution from the farm site in this regard. The impact of underwater noise from boat movements and echosounders has also been considered by the developer and deemed to make no material variation to noise generated by existing used of Loch Sunart.
GEN 14 Air quality: Development and use of the marine environment should not result in the deterioration of air quality and should not breach any statutory air quality limits.	It is not considered that there will be any significant impact on air quality resulting from the proposed development.
GEN 15 Planning alignment A: Marine and terrestrial plans should align to support marine and land-based components required by development and seek to facilitate appropriate access to the shore and sea.	Terrestrial elements of the project will be undertaken using existing infrastructure at nearby Glenmore Bay, which requires no further planning. Vessels will access the farm using an existing private slipway at Glenmore Bay. Permission to use the slipway has been provided by the landowner. The applicant will work positively alongside other planning, regulation and management that affects the use of the marine area.
GEN 16 Planning alignment B: Marine plans should align and comply where possible with other statutory plans and should consider objectives and policies of relevant non-statutory plans where appropriate to do so.	
GEN 17 Fairness: All marine interests will be treated with fairness and in a transparent manner when decisions are being made in the marine environment.	GSS agree wholeheartedly with the spirit of fairness, and the importance of developing a sustainable industry that will prove beneficial socially and economically for generations to come.

be undertaken with the general public and all interested stakeholders to facilitate planning and consenting processes.	The applicant has a demonstrable track record of engaging with local stakeholders and members of the local community in Ardnamurchan throughout the project thus far, as well as the relevant marine bodies. The applicant undertook informal consultation with stakeholders and several public regulatory authorities during its initial site selection process, and during 2019 meetings with the Crown Estate prior to seeking a Lease Option.
	Prior to submitting the license application, the applicant undertook advertised local Pre- application during May 2020, this including an online PAC event. In addition other representative organisations were informed of the pre-app process, invited to attend the online PAC event and to comment and/or provide information as appropriate. These organisations included, but are not limited to, Fishermens Organisation, Royal Yachting Association (Scotland), Scottish Natural Heritage, Northern Lighthouse Board. Full details of the pre-application process undertaken are submitted in support of this Licence application.
GEN 19 Sound evidence: Decision making in the marine environment will be based on sound scientific and socio– economic evidence.	Modern seaweed farming is an emergent industry and as such there is much to learn. The applicant has sought scientific and socio-economic advice from individuals and marine bodies (including SAMS and AquaMoor) and have spent time assisting on seaweed farms on the East Coast of America, where the industry is roughly ten years ahead of our own. The applicant will continue to seek advice regarding all aspects of the project.
GEN 20 Adaptive management: Adaptive management practices should take account of new data and information in decision making, informing future decisions and future iterations of policy	With strong and decisive management practices, we will closely monitor new development in the aquaculture industry and use this knowledge to inform decision making throughout the project
GEN 21 Cumulative impacts: Cumulative impacts affecting the ecosystem of the marine plan area should be addressed in decision making and plan implementation.	We foresee no negative cumulative impacts of the seaweed farm on the surrounding ecosystem. In fact, AquaMoor have provided GSS with first-hand evidence of seaweed farms in Argyll providing excellent nursery grounds for lumpfish.

SEA FISHERIES		
NMP POLICY	CONSIDERATION AND COMMENT	
FISHERIES 3: Where existing fishing opportunities or activity cannot be safeguarded, a Fisheries Management and Mitigation Strategy should be prepared by the proposer of development or use, involving full engagement with local fishing interests (and other interests as appropriate) in the development of the Strategy. All efforts should be made to agree the Strategy with those interests. Those interests should also undertake to engage with the proposer and provide transparent and accurate information and data to help complete the Strategy. The Strategy should be drawn up as part of the discharge of conditions of permissions granted. The content of the Strategy should be relevant to the particular circumstances and could include:	CONSIDERATION AND COMMENT Impact on Commercial Fishing was considered during the preparation of the license application. Fishermen's organisations and local mobile gear fishermen were invited to comment on proposals during informal pre-application consultations in early 2020. The information provided at the early stage consultations was one factor taken into consideration in finalising site location. The site area applied in this licence application is smaller than the Crown Estate Lease Area and incorporates shorter mooring legs on the shoreward side of the proposed development in order to minimise impact on mobile gear fishermen. As part of the assessment of other marine activities taking place on the site AquaMoor has informally reviewed coverage of the area. Within this data incidence of commercial fishing activity within the site area was very low. It is not considered that the proposed development will have any significant adverse impact on the area of fishing grounds available to the commercial fishing activities. The proposed development may, however, offer additional employment opportunities for qualified skippers and crews. Potential future development of facilities in Glenmore Bay may provide additional access opportunities for other marine users in the area.	

FISHERIES 4: Ports and harbours should seek to engage with	This policy is directed at the operators of ports and harbours. Whilst GSS has not considered this
fishing and other relevant stakeholders at an early stage to	policy in bringing forward proposals it is noted that the mid to long term intention development
discuss any changes in infrastructure that may affect them.	of sustainable seaweed farming in Loch Sunart and surrounding areas could result in additional
Any port or harbour developments should take account of the	facilities being available at Glenmore Bay which would benefit commercial fishing interests of
needs of the dependent fishing fleets with a view to avoiding	proposed.
commercial harm where possible. Where a port or harbour	
has reached a minimum level of infrastructure required to	
support a viable fishing fleet, there should be a presumption	
in favour of maintaining this infrastructure, provided there is	
an ongoing requirement for it to remain in place and that it	
continues to be fit for purpose.	

AQUACULTURE	
NMP POLICY	CONSIDERATION AND COMMENT
AQUACULTURE 3: In relation to nutrient enhancement and benthic impacts, as set out under Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters, fish farm development is likely to be acceptable in Category 3 areas, subject to other criteria being satisfied. A degree of precaution should be applied to consideration of further fish farming development in Category 2 areas and there will be a presumption against further fish farm development in Category 1 areas.	This policy is directed at operators of fin fish farms. Whilst GSS has not considered this policy in bringing forward proposals it is noted that the proposed development for the cultivation of seaweed has no requirement for feed or fertilizer inputs and is an extractive type of aquaculture. There is a growing body of evidence to support the proposition that farming seaweed at a sustainable scale such as this proposal will deliver ecological and benthic improvement to a body of water.
AQUACULTURE 5: Aquaculture developments should avoid and/or mitigate adverse impacts upon the seascape, landscape and visual amenity of an area, following SNH guidance75 on the siting and design of aquaculture.	This Policy duplicates policy GEN 7. Consideration of the Landscape, Seascape and Visual Impact of the proposed development has been given consideration in site selection by the developer. Seaweed farms are inherently low visual impact - the seaweed grid structure will be very low profile, sitting approximately two meters below the surface and barely visible to the naked eye. The only visible aspects will be marker buoys designating the outer limits of the structure, which are required to comply with marine safety regulations. The site, discreetly tucked into the eastern shoreline of Oronsay Island, will be hidden from the key tourism routes of the Ardnamurchan peninsula. Oronsay Island itself is inaccessible by road.
AQUACULTURE 6: New aquaculture sites should not bridge Disease Management Areas although boundaries may be revised by Marine Scotland to take account of any changes in fish farm location, subject to the continued management of risk.	This policy is directed at operators of fin fish farms. Whilst GSS has not considered this policy in bringing forward proposals it is noted that the concept of Disease Management Areas is aligned with the biosecurity principles adhered to by GSS. Seaweed farming in Scotland is not at a scale or density that would make this a relevant issue. The applicant is focused on cultivating only native Scottish species.

AQUACULTURE 10: Operators should carry out pre- application discussion and consultation, and engage with local communities and others who may be affected, to identify and, where possible, address any concerns in advance of submitting an application.	This policy duplicates policy GEN 18 The applicant has a demonstrable track record of engaging with local stakeholders and members of the local community in Ardnamurchan throughout the project thus far, as well as the relevant marine bodies. The applicant undertook informal consultation with stakeholders and several public regulatory authorities during its initial site selection process, and during 2019 meetings with the Crown Estate prior to seeking a Lease Option. Prior to submitting the license application, the applicant undertook advertised local Pre- application during May 2020, this including an online PAC event. In addition other representative organisations were informed of the pre-app process, invited to attend the online PAC event and to comment and/or provide information as appropriate. These organisations included, but are not limited to, Fishermens Organisation, Royal Yachting Association (Scotland), Scottish Natural Heritage, Northern Lighthouse Board. Full details of the pre-application process undertaken are submitted in support of this Licence application.
AQUACULTURE 11: Aquaculture equipment, including but not limited to installations, facilities, moorings, pens and nets must be fit for purpose for the site conditions, subject to future climate change. Any statutory technical standard must be adhered to. Equipment and activities should be optimised in order to reduce greenhouse gas emissions.	Although this policy is directed at operators of fin fish farms, GSS has considered this policy in bringing forward proposals and is focused on using the most environmentally sensitive options available for all materials and equipment. It is noted that equipment that has been specified and will be supplied by AquaMoor will be in accordance with the Scottish Technical Standard and it will be certified as fit for purpose by the supplier/manufacturer. Although excessive for the needs of seaweed farming, this fin fish standard is referenced for guidance on best practice as there is not yet a relevant standard for seaweed farming.

AQUACULTURE 13: Proposals that contribute to the diversification of farmed species will be supported, subject to other objectives and policies being satisfied.	Although this policy is directed at operators of fin fish farms, GSS has considered this policy in bringing forward proposals. GSS is focused on developing a best practice model of seaweed farming which will lead the development of a sustainable seaweed industry in Scotland. The applicant recognises that there are sufficient challenges in seaweed farming to warrant undivided attention on one type of cultivation. Notwithstanding this desire to establish a new farming industry for Scotland, the applicant is supportive and will facilitate suitable opportunities for diversification if and when they arise.
AQUACULTURE 14: The Scottish Government, aquaculture companies and Local Authorities should work together to maximise benefit to communities from aquaculture development.	This policy duplicates the provisions of policies GEN 2 and 3. The proposed development is part of an ambitious project which seeks to develop several sites in the Ardnamurchan area. The long term aim is that local Social and Economic Benefit will be realised through increased employment opportunities for the wider area of Lochaber as well as direct income to community members in the Loch Sunart and Ardnamurchan area.

WILD SALMON AND DIADROMOUS FISH	
NMP POLICY	CONSIDERATION AND COMMENT
WILD FISH 1: The impact of development and use of the marine environment on diadromous fish species should be considered in marine planning and decision making processes. Where evidence of impacts on salmon and other diadromous species is inconclusive, mitigation should be adopted where possible and information on impacts on diadromous species from monitoring of developments should be used to inform subsequent marine decision making.	policy in bringing forward proposals. It is noted however that there is a growing body of evidence to suggest that the ecological enhancement generated by cultivation of seaweed in Scotland's coastal environs will potentially have a positive impacts on wild salmonids in the surrounding

RECREATION AND TOURISM	
NMP POLICY	CONSIDERATION AND COMMENT
REC & TOURISM 1: Opportunities to promote sustainable development of marine recreation and tourism should be supported.	AquaMoor's analysis of vessel traffic in the vicinity indicates limited use of the site area for boat based marine tourism. Opportunities for tourism of this nature may be improved through the proposed development which will provide an excellent educational opportunity on the many benefits if farming seaweed.
 REC & TOURISM 2: The following key factors should be taken into account when deciding on uses of the marine environment and the potential impact on recreation and tourism: The extent to which the proposal is likely to adversely affect the qualities important to recreational users, including the extent to which proposals may interfere with the physical infrastructure that underpins a recreational activity. The extent to which any proposal interferes with access to and along the shore, to the water, use of the resource for recreation or tourism purposes and existing navigational routes or navigational safety. Where significant impacts are likely, whether reasonable alternatives can be identified for the proposed activity or development. Where significant impacts are likely and there are no reasonable alternatives, whether mitigation, through recognised and effective measures, can be achieved at no significant cost to the marine recreation or tourism sector interests. 	GSS has considered this policy in bringing forward proposals. The extent of the development is small scale and therefore unlikely to have any impact on various recreation and tourism activities including but not limited to sailing, Cruise boats, sub-aqua, sea kayaking, sea angling, travel by car and coach and coastal walking.

REC & TOURISM 3: Regional marine plans should identify areas that are of recreational and tourism value and identify where prospects for significant development exist, including opportunities to link to the National Long Distance Walking and Cycle Routes, and more localised and/or bespoke recreational opportunities and visitor attractions.	Whilst it is noted that the Ardnamurchan peninsula is an important destination for recreation and tourism, the site location chosen avoids major, significant impacts on terrestrial viewpoints.
REC & TOURISM 6: Codes of practice for invasive non-native species and Marine Wildlife Watching should be complied with.	Whilst this policy is directed at Recreation and Tourism Operators, GreenSea Solutions intends to undertake staff training to ensure that boat movements are compatible with the provisions of Marine Wildlife Watching Codes of Practice to seek to mitigate the impacts of the development and on-site operations on wildlife.

SHIPPING, PORTS, HARBOURS AND FERRIES	
NMP POLICY	CONSIDERATION AND COMMENT
TRANSPORT 1: Navigational safety in relevant areas used by	Early communication with Northern Lighthouse Board ascertained that it did not have any
shipping now and in the future will be protected, adhering to	significant concerns over navigational impacts subject to the site being appropriately marked.
the rights of innocent passage and freedom of navigation	
contained in UN Convention on the Law of the Sea (UNCLOS).	No vessels involved in commercial shipping currently travel close to the proposed site area. The
The following factors will be taken into account when	proposed development is distant from any ferry routes.
reaching decisions regarding development and use:	
• The extent to which the locational decision interferes with	There is traffic related to fish farming operations elsewhere in Loch Sunart and GSS does not
existing or planned routes used by shipping, access to ports	consider that there will be any difficulty in making vessel operators aware of on site activities at
and harbours and navigational safety. This includes	Oronsay East.
commercial anchorages and defined approaches to ports.	
Where interference is likely, whether reasonable	There are no large vessel operations required at any stage during the installation or operation of
alternatives can be identified.	the site.
Where there are no reasonable alternatives, whether	
mitigation through measures adopted in accordance with	
the principles and procedures established by the	
International Maritime Organization can be achieved at no	
significant cost to the shipping or ports sector.	

NMP POLICY	CONSIDERATION AND COMMENT
DEFENCE 1: To maintain operational effectiveness in Scottish	The applicant has considered this policy in bringing forward proposals and does not consider tha
waters used by the armed services, development and use will	location of the development will impact in any way on the operational effectiveness of HN
be managed in these areas:	Armed Services.
• Naval areas including bases and ports: Safety of navigation	
and access to naval bases and ports will be maintained. The	
extent to which a development or use interferes with access	
or safety of navigation, and whether reasonable alternatives	
can be identified, will be taken into account by consenting	
bodies. Proposals for development and use should be	
discussed with the MOD at an early stage in the process.	
• Firing Danger Areas: Development of new permanent	
infrastructure is unlikely to be compatible with the use of	
Firing Danger Areas by the MOD. Permitted activities may	
have temporal restrictions imposed. Proposals for	
development and use should be discussed with the MOD at	
an early stage in the process.	
•Within Exercise Areas, activities may be subject to temporal	
restrictions. Development and use that either individually or	
cumulatively obstructs or otherwise prevents the defence	
activities supported by an exercise area may not be	
permitted. Proposals for development and use should be	
discussed with the MOD at an early stage in the process.	
Communications: Navigations and surveillance including	
radar: Development and use which causes unacceptable	
interference with radar and other systems necessary for	
national defence may be prohibited if mitigation cannot be	
determined. Proposals for development and use should be	
discussed with the MOD at an early stage in the process.	