 **Nayland College** 

Level 2 Earth & Marine Science

#### *Is salmon farming sound?*



#  http://t3.gstatic.com/images?q=tbn:ANd9GcQiqD-AgLq6EmnVP6nCRLdesAxBmJtKBa4T1mZdr8BpNsAJ_5LrzA http://hairymussel.co.nz/wp-content/uploads/2010/08/100609_asphoto_12330.jpg

# http://t1.gstatic.com/images?q=tbn:ANd9GcRaKGJGnifd7vj_Lj17c0lG7T9WujXDlf4ajXbmkRQaMvoK5KmIaA http://t0.gstatic.com/images?q=tbn:ANd9GcTK2YcYmb5-b3scGsA6G2Yf0-ArLsZCWfryJumK3KlEB0z9YrW6

# Achievement Standard 90811 Version 3 Credits: 4

Explain how human activity in a biophysical environment has consequences for a sustainable future

Due Date : TBC

**Introduction**

Since humans first arrived in New Zealand their impact on natural ecosystems has been considerable. We need to eat, this leads to environmental impacts. Currently there is a move to increase the number of salmon farms in the Marlborogh Sounds.

In this assignment you are to **research** and **prepare a report** that discusses the **consequences** of **salmon farming** in the **Marlborough sounds** in relation to a **sustainable future.**

**Conditions:**

*You will have approximately 3 weeks to complete this task. Within that time you will hear from stakeholders. You will also have class time (approx 6 periods) where you can carry out further research, process information and data, and prepare your report.*



**The research bit….**

**1** Using a map, **show the location** of key features that are affected by salmon aquaculture

**2** Research information so that you can **describe the biophysical nature of the environment** using annotated diagrams, flow charts, paragraphs, photos, etc. You will need to include information on at least two systems:

* the **ecological system:** the important parts of the marine foodweb and how each part affects others
* and **economic**: what do people use this area for and what is the contribution to the economy
* The **Hydrological** systems – currents, depth, nutrient inputs, clarity, etc

**3 Describe the activity (salmon aquaculture)** – what is it, what happens, where does it happen, why does it happen there? Why are they looking at moving some of the farms?

**The report bit….**

*This bit is where you describe salmon farming and explain the consequences, and where you bring it all together . You will need to cover the things from 1,2 and 3above but you will then also have to describe, explain and analyse the consequences (ie the effect) of the human activity :*

Using the information from tasks 1-3, **present a report** that discusses a range of **consequences** of this activity on the biophysical environment with relation to aspects of **sustainability** - environmental, social, cultural and economic.

Remember your report must relate to the **sustainable future of the environment**.

***It is level 2, it is not meant to be easy!***

*Your report must be mostly in* ***your own words****. This will show you understand the ideas in the material you have found. It is expected that a significant part of your report will be made up from other peoples ideas – acknowledge them. Where you are using the ideas of others (even in your own words) you should acknowledge this in a proper fashion. Where you use information from a source in its original form it should be in quotation marks and acknowledged. Photos, diagrams, maps, graphs and tables used in their original form should also be acknowledged.*

*By the way, it might be nice to add some images to make your report look flash. However, what is assessed is your understanding of the* ***consequences of human activity in relation to a sustainable future***

Explain how human activity in a biophysical environment has consequences for a sustainable future involves:

* explaining the characteristics of a biophysical environment, including the ecological system and a physical system it interacts
* outlining the human activity being undertaken in the biophysical environment and investigating the consequences of the activity for the sustainability of the environment
* drawing conclusions about the consequences of the human activity for a sustainable future

**and for E**

* drawing insightful conclusions about the wider implications of how human activity in a biophysical environment has consequences for a sustainable future. The conclusions may include projections of future impacts and consideration of options for actions that show personal and social responsibility for a sustainable future.

Marking sched below

**Assessment Schedule: EfS/2/2\_A2 - Generic Template**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | Evidence/Judgements for achievement | Evidence/Judgements for achievement with Merit | Evidence/Judgements for achievement with Excellence |
|  | **Describe** consequences of human activities within a biophysical environment in relation to a sustainable future. | **Explain** consequences of human activities within a biophysical environment in relation to a sustainable future. | **Discuss** consequences of human activities within a biophysical environment in relation to a sustainable future. |
| 12 | * Map shows key features related to the activity selected
* At least 2 systems described. (ie ecological and land use)
 |  |  |
| 3 |  Activity is described  |  |  |
| 4 | Consequences are identified and described **in terms of aspects of sustainability.**  | Consequences are fully explained **in terms of aspects of sustainability**. This will include **reasons** as to how or why human activity has had consequences on the biophysical environment. | Consequences are discussed **in terms of aspects of sustainability**. This will include **evidence of understanding the links between the biophysical environment and the human activity.** It may involve justifying decisions, making judgements, stating opinions, considering implications, projecting future impacts, evaluating options, comparing and contrasting, analysing or suggesting alternatives, as appropriate. |