

Microalgae in Switzerland

Environmental Permitting

At the federal level, the main legislative instrument for environmental permitting is the Environmental Protection Act (Umweltschutzgesetz). The permitting procedure involves the plant operator submitting an application file to the Cantonal permitting authority. For new plant, the Umweltschutzgesetz incorporates a requirement for environmental compatibility assessment under the Verordnung über die Umweltverträglichkeitsprüfung legislation. Proposers of certain new developments or significant modifications to existing developments are required to provide an assessment of the likely environmental impacts as part of the commune building permit procedure. Cantons and communes are obliged to take into account other federal laws in the assessment process, including: The Noise Control Act (Lärmschutzverordnung); The Clean Air Act (Luftreinhalteverordnung);

The Water Bodies Protection Law (Gewässerschutzgesetz) and The Energy Law (Energiegesetz).

Main implementing legislation	Primary implementing agency	Permit types
Federal Environmental Protection Act (Umweltschutzgesetz) Environmental Compatibility Assessment Act	Canton government agency	Environmental/building permit

Key Points to consider:

1. What is the size of the facility?
2. What services exist already on the site?
3. Is the site located close to dwellings / environmentally sensitive areas / sites of special scientific interest?
4. Are any discharges produced by the site? Will significant amounts of waste be stored on site?
5. Are there any concerns about noise?
6. Are there any emissions from site?

First step:
- Contact Canton environment agency

Planning

The general legal structure is determined by the federal Raumplanungsgesetz (Land Use Planning Law) which provides the overarching framework for lower levels to follow. Other important federal laws with relevance to planning applications include the Environmental Protection Law (Umweltschutzgesetz), Environmental Compatibility Assessment Act, Noise Control Act, Clean Air Act, Water Bodies Protection Law and the Energy Efficiency of buildings Law. Each of the 26 Cantons has its own building laws and development plans that include landscape, residential areas, transport, public utility infrastructure and public buildings. Applications for a building permit are determined by Cantonal legislation but administered locally. The local planning authority then assesses the application and can request modifications to the plans. The application is published for public consultation before approval.

Main implementing legislation	Primary planning authority	Planning mechanism
Federal Raumplanungsgesetz Cantonal legislation	Local authority/Commune	Building permit

Key Points to consider:

1. What size is the facility?
2. Is the site located close to dwellings / environmentally sensitive areas / sites of special scientific interest?
3. Are any discharges produced by the site?
4. What services exist already on the site?
5. Is the site likely to cause nuisance - e.g. noise above levels of agricultural machinery / odour / light above dense street lighting?

First step:
- Contact Local Planning Authority

Regulatory Issues

Regulatory issues are very much dependent on end use of biomass. Please consult the relevant factsheet for further information. Factsheet #15. Algae as Feedstock for Energy Generation - European fuel quality and other bioenergy legislation are explained

Factsheet #16. Algae as Feedstock for Chemicals - this covers REACH and other pertinent legislation

Factsheet #17. Algae as Feedstock for Food or Feed - FEMAS and other regulations for entering the food chain are described in more detail.

Key Points to consider:

1. What inputs have gone into the production process: are any classified as waste?
2. What is the target end use of the algal biomass?
3. What further processing steps are required?