



Guidelines for Licensing of Recirculating Aquaculture Systems in Estonia



Guidelines for licensing

Introduction

Development of a RAS complex is subject to a complex set of licensing requirements. In addition to permits and licenses related to land use and construction of the buildings and infrastructure, its later use for aqua- and agricultural activities requires licenses. These licenses are issued by a number of different authorities (at different administrative levels) and are subject to both national as well as EU rules, necessitating a careful navigation of the procedures. The following guidelines are aimed at providing a clear and easily understandable overview of the licensing procedures, summarised visually in Chapter 0.

General legal context of agro-industrial facilities in the EU and Estonia

Multi-layered legal environment

Agro-industrial facilities in the European Union (EU) are subject to a comprehensive regulatory framework designed to ensure environmental protection, public health, and sustainable development. These rules provide for a number of procedures and permits required before an agro-industrial facility can commence its operations. Some of the rules have been established on the EU level as either Directives that need to be transposed into the national legal order or Regulations that are directly applicable. Other rules are 'purely national', i.e., established by the Estonian legislation. Therefore, the set of rules is a multi-layered one, with specific national characteristics and requirements in addition to rules also applicable in other EU member states.

Key EU rules on agro-industrial facilities

Primary EU legal instruments governing the permitting and later operation of agro-industrial facilities (including the RAS), are:

Water Framework Directive (WFD): The WFD (Directive 2000/60/EC) mandates the protection and sustainable management of water resources across the EU, which is crucial for agri- and aquaculture systems that rely on clean water sources as input and create at least some wastewater as a result of their activities.

Common Agricultural Policy and Common Fisheries Policy: these two sets of policies and corresponding legal acts provide framework rules for respectively the conduct of agriculture and aquaculture activities as well as (financial and other) public support to the companies active in these fields. The aim is to increase both the ecological sustainability as well as food security and competitiveness of EU companies.

Environmental Impact Assessment Directive: According to Directive 2011/92/EU, certain projects, including large-scale aquaculture facilities, must undergo an Environmental Impact Assessment (EIA) to evaluate their potential environmental effects before a permit may be issued for their realisation. Strategic plans, including spatial plans on the local level may be subject to Strategic Environmental Assessment, governed by Directive 2001/42/EC.

Animal health rules: Regulation (EU) 2016/429, commonly known as the "Animal Health Law," is a comprehensive legal framework that harmonizes animal health, including aquatic animal health, standards across the European Union. It was adopted to prevent and control animal diseases, including those that can be transmitted to humans. The regulation also sets out specific requirements for the aquaculture sector, including the health management of aquatic animals, traceability, and certification processes to prevent the introduction and spread of diseases within and between member states.

It should be noted here that the EU does not have an exclusive competence on aquaculture (unlike, e.g., for fisheries). The EU has, however, published a number of strategic guidelines and recommendations (more relevant detailed below in the next chapter), including:

- **2021 strategic guidelines for a more sustainable and competitive EU aquaculture**, which aim to support the growth of the aquaculture sector in alignment with the European Green Deal and the Farm to Fork Strategy. These guidelines emphasize the need for sustainability, competitiveness, and resilience in the sector. They set out key priorities, including reducing the environmental impact of aquaculture, promoting animal health and welfare, diversifying production, and enhancing the social acceptance of aquaculture practices. The guidelines also encourage innovation, digitalization, and the use of circular economy principles to optimize resource use.
- **2024 recommendations on regulatory and administrative framework for aquaculture**, which are designed to streamline and improve the regulatory environment for aquaculture across member states, making it more efficient and supportive of sustainable growth. These recommendations focus on simplifying administrative procedures, reducing bureaucratic burdens, and enhancing the clarity and consistency of regulations affecting the sector. They aim to facilitate easier access to permits, promote transparency, and ensure that regulations are proportionate to the risks involved. Additionally, the recommendations advocate for greater coordination between national and EU-level authorities.
- **2024 recommendations on planning of space and access to water for marine aquaculture**, which aim to optimize the use of maritime and freshwater resources to support the sustainable expansion of aquaculture. The recommendations highlight the importance of integrating aquaculture into broader maritime spatial planning and coastal management frameworks to ensure that space and water access are allocated efficiently and equitably. They encourage member states to identify suitable areas for aquaculture development, balancing environmental protection with economic growth, and to consider the potential impacts on biodiversity, local communities, and other maritime activities.

Key Estonian laws and regulations on agro-industrial facilities

In addition to the laws and regulations transposing the EU Directives, among which the key for agro-industrial facilities are the Water Act and the Environmental Impact Assessment and Environmental Management Systems Act, the following Estonian laws and regulations are most relevant for the establishment of new agro-industrial facilities:

- **General Part of the Environmental Code Act:** provides the framework for environmental permitting, including the provisions according to which a single environmental permit is issued for any installation which would cover all areas of activity requiring permitting (e.g., waste management, water consumption and wastewater treatment, ambient air emissions).
- **Planning Act:** regulates land use and spatial planning, ensuring that the establishment of agro-industrial facilities, including RAS, aligns with local development plans and environmental as well as socio-economic considerations. Impacts of specific land use on local ecosystems, infrastructure, and communities etc. are to be assessed at different levels of spatial planning.
- **Veterinary Act:** provides regulations that are partly aimed at supplementing the above-mentioned EU Animal Health Law, but also provides country-specific rules on protecting animal health and thereby indirectly the health and safety of consumers.
- **Nature Conservation Act:** provides rules, among others, on alien species. The law provides that individual specimen of alien species kept in artificial conditions may be relocated for keeping in artificial conditions in another location only with the permission of the Environmental Board.

Changing legislative environment around bioeconomy, circular investments and industrial symbiosis

Relevant overarching changes to the industrial policy and legislation

[EU Green Deal](#), announced by the European Commission in 2019, forms the basis for EU's policy and legislation on industrial activity (including industrial symbiosis), bioeconomy, and circular economy as well as investments in these fields. As detailed below, the EU Green Deal does not only affect EU's own policy but has also had a direct impact on the national policies and legislation adopted to achieve the aims of such policies.

A more specific policy which reflects the impact of the EU Green Deal on industry, "[A New Industrial Strategy for Europe](#)" was released by the European Commission in 2020. A high-level strategy, it nonetheless sets out some specific amendments to the regulative environment to be adopted. From the perspective of RAS, the most relevant initiatives announced were:

- Strategy for **smart sector integration** – aimed at, among other things, at ensuring that all carriers of energy, are used more effectively by linking different sectors.
- Adoption of **Circular Economy Action Plan** (detailed below).

The [EU Strategy for Energy System Integration](#) was adopted later in 2020. One of the six 'pillars' of the strategy is aimed at creating a more circular energy system, with 'energy-efficiency-first' principle at its core. Under this pillar, a crucial action was to facilitate the reuse of waste heat from industrial sites as part of the revision of the **Renewable Energy Directive and Energy Efficiency Directive** (these two are detailed below, in the next sub-chapter).

On the national level, the highest long-term governmental strategy, which among other things, addresses the industrial sector, is the [strategy "Estonia 2035"](#). The Strategy sets out 5 strategic objectives, one of which is a strong, innovative and responsible economy. The Strategy also lists changes that need to be made in order to achieve these objectives. Under the heading "Economy and Climate", it includes supporting the use of innovation and R&D, promoting sustainable bioeconomy, reducing bureaucratic hurdles to entrepreneurship, while encouraging responsible business conduct and fair competition, improving resource-efficiency and implementation of circular economy principles,

Based on the "Estonia 2035" strategy, successive governments have emphasized the need for developing Estonia's industrial sector, with the view of transitioning it to be more sustainable and circular. The coalition agreement of the current (54th) Government of Estonia aims to facilitate the establishment of new, innovative and sustainable industrial facilities. Several measures are planned for that aim, including:

- **Creating dedicated industrial zones** (together with the municipalities) where necessary infrastructure shall be built and permitting will be streamlined.
- **Reforming environmental impact assessment procedures**, with the view of streamlining the process while at the same time fulfilling all environmental requirements.
- Reducing the number of activities for which activity licences are required and simplifying the permitting and registration processes.

It should be noted that the **national rules on environmental impact assessment (EIA) have already undergone some reforms in the last few years**, with the focus on reducing time spent on consulting different public bodies and setting stricter timelines for the review of EIA-related documents by the permitting authority. For example, whereas before, EIA program and report were consulted on with public bodies before the general public, the consultation now (after amendments introduced in mid-2024) runs parallel to display of the documents to the general public. According to the explanatory memorandum of the amendments to the act, the amendments were estimated to shorten the average duration of EIA processes (assessed to be around 2 years according to a 2020 study) by 4 months.

Specific changes regarding bioeconomy, circular investments and industrial symbiosis

Bioeconomy, which can be defined as production of renewable biological resources and their conversion into food, feed, bio-based products, and bioenergy, is specifically addressed by the [EU Bioeconomy Strategy](#). This strategy, which was last updated even before the introduction of the EU Green Deal, in 2018, has 5 main goals – to ensure food and nutrition security, manage natural resources sustainably, reduce dependence on non-renewable and unsustainable resources, limit and adapt to climate change and strengthen European competitiveness and create jobs. The strategy is supplemented by an action plan on its implementation. The latter contains 14 concrete actions, many of which are relevant for the project at hand, such as launching pilot actions for the deployment of bioeconomies in rural, coastal and urban areas and assisting stakeholders in developing and deploying sustainable biobased solutions.

As regards circular economy and investments in this field, EU's [2020 Circular Economy Action Plan \(CEAP\)](#) leads the way. CEAP identifies key value chains requiring urgent, comprehensive and coordinated actions; among which is also the food, water and nutrients value chain.

When it comes to specific changes to legislative environment, the EU Bioeconomy Strategy and the CEAP have found the most concrete outlet in Estonia in the [2023 Circular Bioeconomy Roadmap](#). As the name implies, this roadmap is bringing together these two areas, which are sometimes seen as separate on the EU level. This roadmap lists, among others, necessary actions to develop the subject matter in the short term (2023-2027) as well as in the longer term (2028-2035). Among the actions for the short term, legislative framework is addressed – the roadmap calls for adjustment of the legal framework to account for the needs of the circular bioeconomy, especially streamlining the permitting processes on the national level and initiating changes on the EU level needed to facilitate the introduction of innovative, biologically-based products on the market. Additionally, the roadmap calls for review of definitions related to circular bioeconomy, such as the definition of waste, including biological waste and by-products.

As regards industrial symbiosis, then from the perspective of the current project, the most important are the amendments to rules on the use of waste heat, in particular the Directives on energy efficiency and (promotion and uptake of) renewable energy.

The revised [Energy Efficiency Directive](#) was published in the Official Journal of the European Union on 13 September 2023. The regulation, the bulk of which must be transposed in the national law by 11 October 2025 highlights the need to reuse waste heat more than the previous Directive (2012/27/EU). According to the amended regulation, the integrated national energy and climate plans should, among others, include a comprehensive heating and cooling assessment, which should be based on a cost-benefit analysis. This assessment should include information whether there is potential for use of waste heat for either district heating or in the industrial sector. Additionally, the Directive provides that a project-level of assessment of costs and benefits as regards the use of waste heat must be carried out for installations exceeding certain thresholds (e.g., industrial installations with an average annual total energy input exceeding 8 MW). Member States are also expected to remove barriers for the utilisation of waste heat and provide support for its uptake in case of newly planned or refurbished installations.

The amendments to [Renewable Energy Directive](#) published in October 2023 also highlight the use of waste heat. According to the revised Directive requires that competent authorities at all levels provide for use of unavoidable waste heat when planning, designing, building and renovating industrial and other areas. The Directive sets growth targets for renewable energy use in the industrial sector and provides that use of waste heat can, to an extent, be counted toward the fulfilment of these targets.

Licensing roadmap for RAS

Construction and operation of a recirculating aquaculture system (RAS) complex in Estonia would require several permits and notifications to be obtained from or submitted to different authorities (local government, Environmental Board, Agriculture and Food Board).

The exact number and type of permits and notifications will, in practice, depend on the exact details of the project (volumes of resources used, the source of specimen of aquaculture species used etc.). Below, we have listed permits and registrations that are most likely needed for the specific project, together with details on their scope, competent authorities, expected time spent on them etc. To provide a better overview of the different permits and their relationship, a graph on licensing of RAS as well as greenhouses and associated infrastructure is also provided below (in Section 0).

NB! The following roadmap may not include all permits required for the operation of the RAS complex after its establishment, as these shall depend on the exact details of production, including which aquatic animals are used and whether and how the aquatic organisms are processed in the complex. The roadmap focuses on permits and licenses required to commence with operations of any type of RAS complex.

Name of the permit, registration/ or procedure	Subject matter and scope	Competent authority	Expected duration of procedures	Other comments
1a. Detailed spatial plan (+SEA)	<p>Detailed spatial plan provides the most important conditions for land use in a specific area (one or several immovables), including the purpose of use, and provides conditions that need to be taken into account in the following building design and permitting. Among other things, the scope of building rights of different plots covered by the spatial plan is decided. The building rights include the maximum number of buildings, their maximum surface area and height. A single detailed spatial plan could cover both the RAS complex as well as other parts of the agro-industrial complex.</p> <p>Strategic Environmental Assessment (SEA) is not compulsory for RAS, but may be carried out as part of the detailed spatial plan procedures.</p> <p>Municipalities have a wide discretion in deciding the contents of the detailed spatial plans, mostly restricted only by higher-level spatial plans (municipal comprehensive plan, county-level spatial plans) and statutory rules on, e.g., environmental protection.</p>	Local government (municipality)	Varies (anywhere from 6 months to several years can be expected), depending on the complexity of the intended land use and whether SEA is initiated.	A detailed spatial plan for Auvere Agropark has been initiated on 25 July 2020 together with its SEA. The drafting of the plan has, however, progressed slow, with the procurement procedures intended to find necessary experts having failed in 2023.
1b. Building design specifications	<p>Building design specifications are a basis for drafting building design documentation (and thus alternative to detailed plans), needed for buildings that require building permits and civil works associated with public interest. Whereas detailed plans are required in densely populated areas and for developments with</p>	Local government (municipality)	Statutory time limit is 30 or 60 days, depending on whether public display of documents (and in some cases, a public hearing) is organised. In more complex cases, the	Building design specifications are in practice less detailed than detailed spatial plans, and requirements for public participation and consultation are less strict. These are the main reasons why the procedures are much faster and in practice often preferred by the developers.

	<p>more significant impacts, building design specifications are used in rural settings and for developments with lower impact on the surroundings.</p> <p>Like with the detailed plan, the building rights, including the maximum number of buildings, their purpose of use, height, surface area are determined in building design specifications together with necessary conditions on architectural design and engineering.</p>		municipality may extend this deadline.	
2a. Environmental permit	<p>A single environmental permit is issued for each industrial facility (e.g., a RAS complex), covering different environmental aspects (water use, waste management, ambient air pollution), in case the thresholds provided in the laws are exceeded.</p> <p>Environmental permits establish limits to the use of natural resources (e.g., extraction of surface and ground water) and emissions into the environment. The permits also include different auxiliary obligations of the operators, such as emissions' reduction measures, monitoring obligations etc.</p> <p>The competent authority has a rather broad discretion in determining whether and on what conditions to issue the permit.</p>	Environmental Board	<p>Statutory time limit for the procedures is 90 days, however, in more complex cases, the competent authority may extend the deadline.</p> <p>NB! In case an EIA is initiated, the permitting deadlines are suspended until the end of the EIA process.</p>	<p>Environmental permit is, for example, required for the following activities:</p> <ul style="list-style-type: none"> - Extraction of more than 30 m3 surface water per day - Extraction of more than 150 m3 ground water per month or 10 m3 ground water per day - Aquaculture installations with production growth of over 1 ton per annum - Production of reclaimed water from water from aquaculture - Discharge of pollutants or treated effluent in a water body or soil - Emissions of air pollutants over a certain threshold value, such as 1 ton of ammonia per annum - Waste recovery operations (with some exceptions on recovery of non-hazardous waste)
2b. Environmental Impact Assessment (EIA)	<p>Environmental impacts of an activity planned according to an application for activity permit are assessed in an EIA procedure, if the impacts may be 'significant'. The law lists some activities that are considered to have 'significant' impacts by default, whereas for all other activities, the impact assessment may be initiated on a case-by-case evaluation.</p> <p>Operating a RAS complex as such is not considered to have significant impacts by default.</p> <p>EIA process consists of several phases, most important of which are scoping (drafting and adopting an EIA program) and drafting and adopting of a final impact assessment report.</p>	Same as the issuer of the activity permit	No deadline for the procedure as a whole; in practice in 2020, an average of 22 months was expected ¹ .	<p>EIA is not considered a separate permitting procedure, but is instead 'nested' in (environmental, construction or other) permitting procedures.</p> <p>In case an SEA is carried out at the stage of detailed spatial planning, an EIA may no longer be necessary. This would be the case, when the SEA of the detailed plan has been detailed enough to give necessary information on the impacts and their mitigation measures for the permitting authority and the circumstances (e.g. environmental aspects, pressures on the environment) have not changed after the SEA was completed.</p>

¹ According to the study on the EIA system in Estonia, conducted by LEMMA OÜ, available online in Estonian: <https://kliimaministeerium.ee/sites/default/files/documents/2021-07/Keskkonnam%C3%B5ju%20hindamise%20s%C3%BCsteemi%20parandusettepanekute%20anal%C3%B5C%C3%BCs%202020.pdf>. Changes made to the EIA act in 2024 aim to reduce this by several months.

<p>3. Building permit</p>	<p>Permit required for the construction of most buildings and some civil works, defined in the Annex 1 of the Building Code.</p> <p>Building permits are based on building design documentation, prepared by the developer, which cover both the architectural and engineering aspects of the buildings.</p>	<p>Local government (municipality)</p>	<p>Statutory time limit is 30 days, which may be extended in more complex cases.</p>	<p>A building permit may cover both the main building as well as its auxiliary buildings and civil engineering works. According to Annex 1 of the Building Code, building permit is required, for example, for the construction of new:</p> <ul style="list-style-type: none"> - Non-residential buildings with a surface area of more than 60 sq. m and/or height of 5 meters; - Gas installation (e.g., LPG tank) outside of buildings. <p>For the construction some buildings, which have a smaller impact on the surroundings (e.g. electric vehicle charging infrastructure, a shelter with a surface area of 20 sq. m and construction of a fence, for which ground must be excavated), a building notice may have to be submitted instead of a building permit application. Such notices are considered to be approved within 10 days, unless otherwise indicated by the municipality.</p>
<p>4. Deforestation permit</p>	<p>In case forested land needs to be deforested for the RAS buildings or associated infrastructure, a separate permit (forest notice) must be issued to cut down the forest</p>	<p>Environmental Board</p>	<p>Forest notice is registered in 15 or 30 days, depending on whether other authorities need to be consulted or not.</p>	<p>Forest notice for deforestation must be based on a permit or other official document that allows use of the affected area that differs from regular forest management.</p> <p>Since 1 July 2024, a fee for deforestation must be paid; as of September 2024, the fee is € 4,464 per hectare.</p>
<p>5. Permit for use</p>	<p>After the construction activities have been completed, the permits of use must be applied for in cases defined in Annex 2 of the Building Code.</p> <p>The municipality shall issue the permit if the buildings and civil engineering works have been built according to the building permit and other relevant documentation and standards and the constructions can be safely used.</p> <p>If necessary, additional obligations related to operation of the building may be added.</p>	<p>Local government (municipality)</p>	<p>Statutory time limit is 30 days, which may be extended in more complex cases.</p>	<p>Like building permits, permits for use may cover more than one building. According to Annex 2 of the Building Code, permits for use are required, among others, for:</p> <ul style="list-style-type: none"> - Non-residential buildings with a surface area of more than 60 sq. m and/or height of 5 meters - Gas installation (e.g., LPG tank) outside of buildings. <p>For the use of some buildings and civil engineering works, which have a smaller impact on the surroundings (e.g. a shelter with a surface area of 20 sq. m), a notice of use may have to be submitted instead of a permit application. Such notices are considered to be approved within 10 days, unless otherwise indicated by the municipality.</p>
<p>6. Aquaculture activity permit</p>	<p>Activity permit is aimed at ensuring the fulfilment of veterinary requirements (including management of biosecurity issues)</p>	<p>Agriculture and Food Board</p>	<p>Statutory time limit is 90 days</p>	<p>An on-site visit is conducted as part of the permitting procedure.</p>

	established by different EU regulations (such as Regulation 2016/429 and Delegated Regulation 2020/691) and the Veterinary Act.			<p>Permitted companies must have a valid and up-to-date biosecurity management plan, which must be adopted within 30 days of permitting at the latest (however, the Agriculture and Food Board recommends adopting it before applying for the permit).</p> <p>Parallel to the permitting, the location of the RAS complex will be registered with the Agricultural Registers and Information Board (PRIA). No separate application is needed, as the form for applying for the permit already includes necessary data.</p>
7. Food producer's permit	<p>Food producer's permit or notification is aimed at ensuring food safety. The permit is required if food is 'handled' in the facility. The term 'handling' is quite broad and includes for aquaculture processes such as removal of intestines or other organs from the specimen grown, filleting of fish etc. Freezing and packaging of whole specimen is also included under the term. On the other hand, permit is not required if the specimen are only grown in the RAS complex and after being removed from water they are directly handed over to another processor, who transports them out of the complex. In that case, the 'downstream' processor has the obligation to hold a food producer's permit.</p> <p>A food producer's permit is issued if the activity complies with relevant EU regulations, such as Regulations 852/2004 and 853/2004.</p>	Agriculture and Food Board	Time limit for issuing the permit is 30 days, which may be extended by another 30 days in more complex cases.	<p>In case a permit needs to be applied for, it should include the plan of the premises and rooms, together with the locations of equipment and plans of water and sewage pipelines in the building(s). The routes of movement of food, packaging, waste and employees should be marked on the plan of rooms. Several other documents, e.g., plan for cleaning and disinfecting the rooms and equipment and pest control plan need to be submitted with the application for permit.</p> <p>It should be noted that in case a food producer's permit is not required, no notification has to be submitted either, as the activity is already sufficiently covered by the aquaculture activity permit.</p>

Licencing roadmap for aquaponics and greenhouse systems

Aquaponics and greenhouse systems, whether alone standing or functionally related to the RAS complex, have a somewhat less rigorous permitting scheme, due to the fact that as no animal or fish species are grown, the veterinary risks do not have to be addressed. On the other hand, permitting requirements that relate to the construction of buildings and issues such as wastewater, air pollution and waste management may still be relevant, depending on the details of construction and operation of the complex.

Name of the permit, registration/ or procedure	Subject matter and scope	Competent authority	Expected duration of procedures	Other comments
1a. Detailed spatial plan (+SEA)	See above. In case a detailed plan is drafted for the RAS complex, it would be reasonable to cover adjacent aquaponics and greenhouse systems in the same detailed plan.	Local government (municipality)	Varies (anywhere from 6 months to several years can be expected), depending on the complexity of the intended land use	See above for details on the spatial plan initiated in this case.

			and whether SEA is initiated.	
1b. Building design specifications	See above. In practice, for stand-alone greenhouse and aquaponics systems, building design specifications would probably be used. However, if they are a part of a larger complex, a detailed spatial plan could be justified (as has been decided in this instance)	Local government (municipality)	Statutory time limit is 30 or 60 days, depending on whether public display of documents (and in some cases, a public hearing) is organised. In more complex cases, the municipality may extend this deadline.	See above.
2a. Environmental permit / notification	See above. As in practice, the RAS complex and aquaponics and/or greenhouse systems may be operated by different operators, the latter would also have to apply for different environmental permits, if these are necessary. Environmental permits for the aquaponics and/or greenhouse systems may be needed in case these are responsible for discharging of pollutants or treated effluent in a water body or soil. It should be noted that if reclaimed water from aquaculture would be used in the aquaponics and/or greenhouse systems, they would have to notify the Environmental Board of this activity and have the activity registered under the Water Act.	Environmental Board	Statutory time limit for the procedures is 90 days, however, in more complex cases, the competent authority may extend the deadline. NB! In case an EIA is initiated, the permitting deadlines are suspended until the end of the EIA process.	See above.
2b. Environmental Impact Assessment (EIA)	See above. Operating aquaponics or greenhouse systems is not considered to be an activity with significant environmental impacts by default. A case-by-case assessment would depend, among others, on the surface area of the buildings, amounts of waste water created etc.	Same as the issuer of the activity permit	No deadline for the procedure as a whole; in practice in 2020, an average of 22 months was expected ² .	See above.
3. Building permit / building notification	See above.	Local government (municipality)	Statutory time limit is 30 days, which may be extended in more complex cases.	See above. In practice, the main buildings used for aquaponics or greenhouses would probably require a building permit.
4. Deforestation permit	See above.	Environmental Board	Forest notice is registered in 15 or 30 days, depending on whether other authorities need to be consulted or not.	See above.
5. Permit for use	See above.	Local government (municipality)	Statutory time limit is 30 days, which may be extended in	See above. The main buildings most probably require a permit for use as these would exceed the

² According to the study on the EIA system in Estonia, conducted by LEMMA OÜ, available online in Estonian: <https://kliimaministeerium.ee/sites/default/files/documents/2021-07/Keskkonnam%C3%B5ju%20hindamise%20s%C3%BCsteemi%20parandusettepanekute%20anal%C3%B5C%C3%BCs%202020.pdf>. Changes made to the EIA act in 2024 aim to reduce this by several months.

			more complex cases.	thresholds for height and/or surface area (5 m and 60 sq. m. respectively)
6. Food producer's notification	A food producer's notification has to be submitted, if an operator grows vegetables or fruits and sells them for consumption or further processing. The notification is aimed at enabling overview and supervision of the facilities.	Agriculture and Food Board	Not applicable	Unlike the food producer's permit, the operator does not have to wait for an approval to commence with its activity. However, the operator must follow the obligations found in the Food Act and associated EU Regulations, most importantly, introduce and follow a self-checking procedure, summarised in a written self-check plan.

Licensing roadmaps for other related facilities

Both the RAS complex as well as aquaponics and greenhouse systems require a number of associated facilities to function. These include, most importantly, the power lines, communications cables, water and sewage pipelines, pipelines carrying heat from the nearby energy production complex, roads and fencing surrounding the complex. Although operating these facilities would mostly not require permits other than permits for use of structures, some permitting by the local government or other authorities would still be required.

Please note that although a separate environmental permit is not required for other related facilities, the use of water and sewage pipelines may be covered by an environmental permit.

Name of the permit, registration/ or procedure	Subject matter and scope	Competent authority	Expected duration of procedures	Other comments
1a. Detailed spatial plan (+SEA)	See above. It should be noted that many networks (power lines, communications cables water pipelines, heat supply pipelines, roads) might extend outside the area that is reasonable to cover with the detailed spatial plan, in which case these could be covered by separate building design specifications.	Local government (municipality)	Varies (anywhere from 6 months to several years can be expected), depending on the complexity of the intended land use and whether SEA is initiated.	See above for details on the spatial plan initiated in this case.
1b. Building design specifications	See above. As noted on the previous line, it would be reasonable to use building design specifications for facilities extending beyond the territory of the RAS and aquaponics/greenhouse complex.	Local government (municipality)	Statutory time limit is 30 or 60 days, depending on whether public display of documents (and in some cases, a public hearing) is organised. In more complex cases, the municipality may extend this deadline.	See above.
3. Building permit / building notification	See above.	Local government (municipality)	Statutory time limit is 30 days, which may be extended in more complex cases.	Building permits are required, among others, for constructing <ul style="list-style-type: none"> - Publicly accessible private roads - Bridges, viaducts and tunnels - District heating pipelines that need to be audited - Power cables with voltage of at least 35 kV

				<ul style="list-style-type: none"> - Sewage treatment plant with the capacity of at least 50 human equivalents <p>Building notification is required for:</p> <ul style="list-style-type: none"> - Communication cables and lines - Water and sewage pipelines other than pipelines that are a part of the public water supply and sewerage - Sewage treatment plant with the capacity of less than 50 human equivalents - Fences and gates, if excavations works are also needed
4. Deforestation permit	See above.	Environmental Board	Forest notice is registered in 15 or 30 days, depending on whether other authorities need to be consulted or not.	See above.
5. Permit for use / notification of the use of construction works	See above.	Local government (municipality)	Statutory time limit is 30 days, which may be extended in more complex cases.	<p>See above. Permits for use are required for:</p> <ul style="list-style-type: none"> - Publicly accessible private roads - Bridges, viaducts and tunnels - District heating pipelines that need to be audited - Power cables with voltage of at least 35 kV - Sewage treatment plants <p>Notification of use is required for:</p> <ul style="list-style-type: none"> - Communication cables and lines - Water and sewage pipelines other than pipelines that are a part of the public water supply and sewerage
6. Food producer's notification	<p>A food producer's notification has to be submitted, if an operator grows vegetables or fruits and sells them for consumption or further processing.</p> <p>The notification is aimed at enabling overview and supervision of the facilities.</p>	Agriculture and Food Board	Not applicable	<p>Unlike the food producer's permit, the operator does not have to wait for an approval to commence with its activity.</p> <p>However, the operator must follow the obligations found in the Food Act and associated EU Regulations, most importantly, introduce and follow a self-checking procedure, summarised in a written self-check plan.</p>

Visual summary of the permitting procedures

