ASC Salmon Standard v1.4

Disclaimer: This text provides an explanation of the ASC Salmon Standard v1.4, in plain English with minimal jargon. It is not intended for use in certification. Only the official standard document is valid for certification purposes. ASC is bringing together its twelve species-specific standards into one robust Farm Standard to provide greater consistency across all species covered by ASC. The ASC Farm Standard will be operational in 2025

The ASC Salmon Standard is structured in eight chapters, that cover seven principles for farms and an additional section that applies to smolt (juvenile salmon) producers. It has the following requirements:

PRINCIPLE 1: Comply with all applicable national laws and local regulations

Principle 1 is intended to ensure that all farms aiming to be certified against the ASC Salmon Standard meet the national legal obligations in the country they are based in. This principle has **one criterion** that is about compliance with all applicable local and national legal requirements and regulations related to land and water use, tax laws, labour laws and regulations, and regulations and permits concerning water quality impacts.

PRINCIPLE 2: Conserve natural habitat, local biodiversity and ecosystem function

Principle 2 addresses the potential impacts of salmon farms on natural habitats, biodiversity, and ecosystems. It includes **five criteria**:

2.1 (Seafloor protection): Farms should set an area around the farm, called the Allowable Zone of Effect (AZE), where some impact is allowed. Outside this zone the farm must check the seafloor sediment on oxygen levels, the number and type of animals, and the types of larger animals, like worms and crustaceans and maintain these indicators of seafloor health at certain levels.

2.2 (Water quality): Farms must monitor dissolved oxygen levels and maintain certain minimum levels. They must also prove they operate in areas with good water quality. If regional water quality ratings exist, they need evidence of "good" or "very good" ratings. If not, they should monitor nitrogen and phosphorus levels as access nutrients may cause harmful algal blooms that cause oxygen depletion. Farms must also monitor the amount of fish waste and uneaten feed and have strict controls over chemical use to avoid pollution and protect the ecosystem.

2.3 (Nutrient release): Farms must limit the release of "fines" (uneaten feed and organic matter), which contribute excess nitrogen and phosphorus to the water.

These nutrients can cause algal blooms, reducing oxygen and creating "dead zones" harmful to marine life.

2.4 (Impact on sensitive areas): Farms cannot operate in protected areas or places with High Conservation Value Areas (HCVAs), such as marine-protected zones, migration routes, or endangered species' habitats (some exceptions apply). Farms must assess how their operations could affect local ecosystems and endangered species and take steps to minimise harm and monitor the success of these actions.

2.5 (Interaction with wildlife): Farms must not use acoustic devices that could harm marine mammals like dolphins, whales, or porpoises. They should not cause the death of endangered or protected mammals and birds. If they need to take lethal action against predators, it should only be after non-lethal methods have been tried, and with approval from management and authorities. Farms are limited to eight lethal actions in two years, with no more than two involving marine mammals. All lethal actions must be reported publicly, and farms must show they are taking steps to reduce future occurrences.

PRINCIPLE 3: Protect the health and genetic integrity of wild populations

Principle 3 ensures salmon farms protect wild fish health by managing disease and parasites, preventing escapes, and carefully selecting farm locations. Farms can spread diseases and parasites like sea lice to wild fish, leading to population declines, and escaped salmon can weaken wild populations' genetic health. Locating farms near wild habitats increases these risks, so the principle includes **four criteria** to address these issues.

3.1 (Managing parasites and pathogens): Farms must join an Area-Based Management (ABM) scheme, where multiple farms in a region collaborate to manage diseases, parasites, and treatment resistance. Farms must set sea lice limits, both for the whole ABM area and for individual farms, which are reviewed yearly. In areas with wild salmon, these limits are adjusted to protect wild fish, particularly during sensitive periods like migration. Farms must cooperate with NGOs, researchers, and governments to study the impact of their practices on wild fish, especially wild salmon. They must collect and share data on salmon migration and sea lice levels found on wild fish species, which they should publicly disclose. Farms are required to regularly monitor sea lice on their fish and share results within seven days. During key periods, sea lice levels must stay below set limits. If levels exceed the thresholds, farms must notify the certification body and reduce lice levels within 21 days, or their product will lose certification.

3.2 (Preventing introduction of non-native species): Aquaculture can introduce non-native species that may become harmful invasive species. If a non-native species is being farmed, the farm must show that it was commercially produced in the area before July 2012 (effective date of the ASC Salmon Standard). Farms

must also provide evidence of recent scientific research on the risks of these species establishing in the local environment. When cleaner fish are used for sea lice control, the species must be native to the area.

3.3 (No use of transgenic species): These are salmon species that have been genetically modified by adding genes from other species to give them new traits, mainly faster and more growth. They pose significant risks to wild fish and ecosystems if they escape, and their use is prohibited.

3.4 (Preventing escapes of farmed salmon): Escapes of farmed salmon can harm wild fish populations and the ecosystem. Farms are allowed a maximum of 300 escaped fish per production cycle, with one rare exception in a 10-year period for an escape event beyond the farm's control. Farms must use accurate counting methods to track the number of fish in their pens. Any unexplained loss of farmed salmon must be publicly disclosed. Farms must have a plan to prevent escapes and train employees on it, covering aspects like net strength, mesh size, predator control, and maintaining farm structures.

PRINCIPLE 4: Use resources in an environmentally efficient and responsible manner

Principle 4 addresses negative impacts that come from resource use, including feed and non-therapeutic chemical inputs. This principle has **seven criteria.** The feed requirements are an interim solution until the Feed Standard becomes fully effective from 31st of October 2025 from which point all ASC certified farms must source and use only ASC compliant feed produced by ASC certified feed mills.

4.1 (Traceability): Farms must verify the origins of feed ingredients that make up over 1% of the feed.

4.2 (Use of wild fish in feed): Farms must limit fishmeal and fish oil from wild fish to specific ratios to reduce dependence on wild fish for farmed fish production.

4.3 (Sustainable sources of marine raw materials): All fishmeal and fish oil in the feed used by farms must come from sustainably certified fisheries by 2025, with interim standards for sustainable sourcing and bans on illegal fishing or endangered species.

4.4 (Sustainable sources of non-marine raw materials): Farms must ensure that the feed mills that produce their feed have a responsible sourcing policy for all ingredients, use certified sustainable soy, and disclose any genetically modified plant materials in feed.

4.5 (Non-biological waste): Farms must ensure waste is recycled or disposed of properly without harming surrounding communities.

4.6 (Energy consumption and greenhouse gas emissions): Farms must measure and document energy use, track emissions, and account for emissions from feed.

4.7 (Non-therapeutic chemicals): Farms using copper-treated nets must avoid cleaning nets at sea, test copper levels in the sediment, and use biocides approved by recognised regulatory bodies.

PRINCIPLE 5: Manage disease and parasites in an environmentally responsible manner

Principle 5 is about reducing the negative effects of salmon farming related to diseases, parasites, and the use of treatment chemicals. It is also about practices to handle fish to maintain their health and welfare. This principle has **four criteria**:

5.1 (Survival and health of farmed fish): Farms must have a health management plan, regular visits from a veterinarian and fish health manager, and proper handling of dead fish. It also sets limits on mortality rates from diseases and requires plans to reduce fish deaths each year.

5.2 (Therapeutic treatments): These are chemicals used to manage diseases. Farms must keep records of all treatments, avoid banned chemicals, and report treatment use publicly. They must gradually reduce medicinal treatments, follow Integrated Pest Management (IPM) practices, and monitor parasiticide levels. Antibiotics can only be used when necessary and must be limited to three per cycle, with no use of antibiotics important for human health.

5.3 (Treatment resistance): Farms must test for drug resistance if treatments fail and switch to other approved treatments or harvest the fish if resistance is found. Farms with multiple treatment options must rotate treatments to prevent resistance.

5.4 (Biosecurity measures): Farms must put in place measures to prevent disease from spreading. They must use fish from the same year group, report any disease outbreaks, increase monitoring, and follow the Aquatic Animal Health Code of the World Organisation for Animal Health to promote safe and sustainable practices for farming aquatic animals. If a notifiable disease is found, farms must remove affected fish, inform other farms, and share the findings publicly.

PRINCIPLE 6: Develop and operate farms in a socially responsible manner

Principle 6 focuses on ensuring that farms treat their workers fairly and respectfully. It has **12 criteria**:

6.1 (Freedom of association and collective bargaining): Farms must allow workers to join trade unions, select their representatives, and collectively negotiate for better conditions, wages, and benefits.

6.2 (Preventing child labour): Farms must ensure no child labour (under 15 years old, or older if required by local law) is used. Workers aged 15-18 should not do hazardous work, have limited working hours, and their hours must not interfere with education.

6.3 (Preventing forced labour): Farms must ensure no forced, bonded, or compulsory labour is used. Workers should be free to leave the workplace, and their personal documents must not be held by the farm.

6.4 (Preventing discrimination): Farms must have policies and practices to prevent discrimination based on factors like sex, race, or other characteristics. If discrimination occurs, it must be corrected.

6.5 (Health and safety): Farms must provide health and safety training annually, ensure proper use of protective gear, conduct risk assessments, and record accidents with corrective actions. Employers are responsible for covering work-related injuries and accidents not covered by national law. Any diving work can only be performed by certified divers.

6.6 (Wages): Farms must pay at least the minimum wage, work towards paying a basic needs wage, and have clear and transparent wage-setting and conflict resolution policies.

6.7 (Labour contracts and subcontracting): Farms must provide contracts to all workers and ensure temporary contracts don't deny benefits or rights. Subcontracted workers must also have socially responsible practices.

6.8 (Conflict resolution): Farms must have accessible, fair, and confidential grievance procedures and address complaints within 90 days.

6.9 (Disciplinary practices): Farms should avoid excessive or abusive disciplinary actions. Disciplinary actions should focus on improving behaviour, with no fines or actions that harm workers' physical or mental well-being.

6.10 (Working hours and overtime): Farms must comply with laws on working hours (max 48 regular hours, 12 hours overtime). Overtime should be voluntary, limited, and paid at a premium rate.

6.11 (Education and training): Farms must regularly train staff on fish care, farm management, escape prevention, and health and safety relevant to their roles.

6.12 (Corporate social responsibility policies): Farms must have social responsibility policies covering all salmon operations in the region, including facilities for smolt production, growing, and processing

PRINCIPLE 7: Be a good neighbour and conscientious citizen

Principle 7 focuses on how farms engage with people living around the farm and has **three criteria**:

7.1 (Community engagement): Farms must regularly consult with community representatives, have policies for resolving complaints, and notify the community when chemicals are applied for disease treatment, including any associated health risks.

7.2 (Respect for Indigenous cultures and territories): Farms must consult Indigenous communities in accordance with laws and negotiate agreements with them regarding farm operations.

7.3 (Access to resources): Farms must not restrict access to vital resources for surrounding communities without approval and must assess their impact on this access.

SECTION 8: Requirements for suppliers of smolt

Section 8 describes the requirements for smolt production (juvenile salmon). Smolt producers must meet the following standards based on the seven principles described above.

P1 (Laws and regulations): Follow local laws on water use, discharge, and labour.

P2 (Biodiversity): Assess how farming affects the environment and limit phosphorus release to a certain level.

P3 (Wild fish protection): Only produce non-native species if they have been farmed in the area before July 2012. Limit escapes to 300 fish per cycle, with one exception in 10 years. Use accurate counting methods for tracking fish in pens.

P4 (Resource use): Have a policy for managing non-biological waste (e.g., plastics, feed bags). Do an energy-use assessment and track greenhouse gas emissions.

P5 (Disease management): Have a fish health plan approved by a vet. Vaccinate for high-risk diseases if vaccines are available. Test smolt for diseases before moving them to farms. Limit antibiotic treatments to three per cycle and avoid using antibiotics critical for human health. Follow international health guidelines (OIE Aquatic Animal Health Code).

P6 (Worker rights): Follow fair labour practices and have policies to protect workers, based on criteria in 6.1 to 6.11.

P7 (Community engagement): Regularly engage with the local community and have a system for handling complaints. Consult with Indigenous groups as required by law.

For open production (net-pens): Only use cages for species native to the area and be certified under the ASC Freshwater Trout Standard.

For semi-closed/closed production: Monitor water quality and maintain oxygen levels at a certain level. Track small animals downstream from discharge to ensure they are healthy. Manage waste (sludge) properly to prevent pollution.