**Appendix E.2**

**Best Management Practices Plan Template**

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**Best Management Practices Plan for**

**NPDES Permit Number WAG1300XX**

**Facility Name:**

**Construction Date:**

**Prepared Date:**

**NPDES ID:**

**Facility Manager:**

In the following sections, indicate how you will achieve the specific requirements of the WA Aquaculture General Permit, by selecting the applicable boxes, and entering information as requested. Where helpful, you might attach example logs/forms used at your facility to physically show your permitting authority how you will implement BMPs to comply with the permit requirements.

### Requirements of the BMP Plan

The BMP Plan must include, at a minimum, the following BMPs. Where a particular practice below is infeasible, the Permittee will substitute another practice to achieve the same end.

#### Materials Storage

*Check the boxes to indicate which storage or spill control practices are used at your facility. Use the text fields to* ***describe the storage or spill control practices*** *if needed. Indicate any additional storage or spill control practices under “Other(s)”. Copy and paste checklist items as necessary for additional practices. For any storage or spill control practice(s) not applicable to your facility leave the check box(es) blank and type “N/A” in the text field(s).*

##### Ensure proper storage of drugs and other chemicals to prevent spills that may result in the discharge to waters of the United States.

[ ]  Store drugs and chemicals away from rearing areas, feeds, and water sources. Click or tap here to enter text.

[ ]  Store drugs and chemicals in locations that are secure, dry, void of drains, water-tight, well ventilated, and not subject to extreme temperatures. Click or tap here to enter text.

[ ]  Store feed away from rearing areas and water sources. Click or tap here to enter text.

[ ]  Store feed in locations that are secure, dry, water-tight, and not subject to extreme temperatures. Click or tap here to enter text.

[ ]  Secure storage areas to avoid tampering or vandalism. Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

##### Implement procedures for properly containing, cleaning, and disposing of any spilled materials.

[ ]  Store materials in sound, clearly labeled containers. Click or tap here to enter text.

[ ]  Keep materials stored outdoors covered. Click or tap here to enter text.

[ ]  Keep materials stored outdoors on paved areas. Click or tap here to enter text.

[ ]  Use secondary containment (e.g., berms, safety storage cabinets, drum containment systems) when storing liquids. Click or tap here to enter text.

[ ]  Maintain a spill prevention and response plan onsite that:

[ ]  Identifies individuals responsible for implementing the plan.

[ ]  Defines safety measures to be taken with each kind of waste.

[ ]  Emphasizes that spills must be cleaned up promptly.

[ ]  Specifies how to notify appropriate authorities (e.g., police and fire departments, hospitals, publicly owned treatment plants) for assistance.

[ ]  States procedures for containing, diverting, isolating, and cleaning up spills.

[ ]  Describes spill response equipment to be used. *Identify location where spill response equipment is stored:* Click or tap here to enter text.

[ ]  Is accessible to all staff. *Identify location where spill prevention and response plan is stored*: Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

***If applicable, use the following text field to describe any additional Materials Storage BMPs not captured in the checklists above.***Click or tap here to enter text.

#### Structural Maintenance

*Check the boxes to indicate which components are applicable to your facility. Use the text fields to* ***describe the components*** *and* ***indicate the frequency at which inspections or maintenance are performed****. Indicate any additional components and the frequency at which they are inspected or maintained under “Other(s)”. Copy and paste checklist items as necessary for additional components. For any component(s) not applicable to your facility leave the check box(es) blank and type “N/A” in the text field(s).*

##### Routinely inspect rearing and holding units and waste collection and containment systems to identify and promptly repair damage.

[ ]  Drains Click or tap here to enter text.

[ ]  Production Units Click or tap here to enter text.

[ ]  Life Support Systems Click or tap here to enter text.

[ ]  Feeding Equipment Click or tap here to enter text.

[ ]  Solids Control Equipment Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

##### Regularly conduct maintenance of rearing and holding units and waste collection and containment systems to ensure their proper function.

[ ]  Drains Click or tap here to enter text.

[ ]  Production Units Click or tap here to enter text.

[ ]  Life Support Systems Click or tap here to enter text.

[ ]  Feeding Equipment Click or tap here to enter text.

[ ]  Solids Control Equipment Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

***If applicable, use the following text field to describe any additional Structural Maintenance BMPs not captured in the checklists above.*** Click or tap here to enter text.

#### Record Keeping

*Check the boxes to indicate whether the record keeping practice is performed at your site. Use the text fields to* ***describe the record keeping practice*** *and* ***indicate where records are maintained****. Indicate any additional records maintained under “Other(s)”. Copy and paste checklist items as necessary for additional records. For any record keeping practice(s) not applicable to your facility leave the check box(es) blank and type “N/A” in the text field(s).*

##### Document feed amounts and numbers and weights of aquatic animals to calculate feed conversion ratios.

[ ]  Documentation on feed amounts, and numbers and weights of aquatic animals is maintained. Click or tap here to enter text.

##### Document the frequency of cleanings, inspections, maintenance, and repairs.

[ ]  Documentation on frequency of cleanings, inspections, maintenance, and repairs is maintained. Click or tap here to enter text.

##### Maintain records of all medicinal and therapeutic chemical usage for each treatment at the facility. Include the information required in the Chemical Log Sheet in Appendix D and in the Annual Reports in Appendix E.

[ ]  Records of all medicinal and therapeutic chemical usage for each treatment are maintained. Click or tap here to enter text.

##### A copy of the label (with treatment application requirements) and the Safety Data Sheet (SDS) must be maintained in the facility’s records for each drug or chemical used at the facility.

[ ]  Copies of labels and Safety Data Sheets are maintained. Click or tap here to enter text.

##### In order to show how the maximum concentrations of chlorine and/or Chloramine-T were derived (see Tables 3 and 7 for monitoring requirements), facilities must maintain records by chemical and by outfall of the approach/analyses used to determine the elapsed time from its application to its maximum (peak) effluent concentration, giving consideration to retention times within the facility.

[ ]  Records of chlorine and/or Chloramine-T use by outfall are maintained. Click or tap here to enter text.

##### Permittees must keep the records necessary to provide the water-borne treatment/calculations information required on page 6 of the revised Annual Report Template (see Appendix G).

[ ]  Records necessary to provide the water-borne treatment/calculations information required in the Annual Report are maintained. Click or tap here to enter text.

***If applicable, use the following text field to describe any additional Record Keeping BMPs not captured in the checklist above.*** Click or tap here to enter text.

#### Training Requirements

*Check the boxes to indicate training method(s) used at your site. Use the text fields to* ***describe the applicable training method(s)****. Indicate any additional training methods under “Other(s)”. Copy and paste checklist items as necessary for additional methods. For any training method(s) not applicable to your facility leave the check boxes blank and type “N/A” in the text field.*

##### Train all relevant personnel in spill prevention and how to respond in the event of a spill to ensure proper clean-up and disposal of spilled materials.

*Indicated methods used to train employees in spill prevention and response:*

[ ]  Posters Click or tap here to enter text.

[ ]  Employee Meetings Click or tap here to enter text.

[ ]  Courses Click or tap here to enter text.

[ ]  Signs Click or tap here to enter text.

[ ]  Bulletin Boards Click or tap here to enter text.

[ ]  Manuals and Standard Operating Procedures Documents Click or tap here to enter text.

[ ]  Spill Drills Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

##### Train personnel on proper structural inspection and maintenance of rearing and holding units and waste collection and containment systems.

*Indicated methods used to train employees in inspection and maintenance:*

[ ]  Posters Click or tap here to enter text.

[ ]  Employee Meetings Click or tap here to enter text.

[ ]  Courses Click or tap here to enter text.

[ ]  Signs Click or tap here to enter text.

[ ]  Bulletin Boards Click or tap here to enter text.

[ ]  Manuals and Standard Operating Procedures Documents Click or tap here to enter text.

[ ]  Other(s) Click or tap here to enter text.

***If applicable, use the following text field to describe any additional Training Requirements BMPs not captured in the checklists above.***Click or tap here to enter text.

#### Operational Requirements

##### Raceways and ponds must be cleaned at such a frequency and in such a manner that minimizes accumulated solids discharged to waters of the United States

*Check the boxes to indicate which components are applicable to your facility. Use the text fields to* ***identify and/or describe the components*** *and* ***indicate the frequency at which cleaning is conducted****. Indicate any additional components and the frequency at which they are cleaned under “Other(s)”. Copy and paste checklist items as necessary for additional components. For any component(s) not applicable to your facility leave the check box(es) blank and type “N/A” in the text field(s).*

[ ]  Nursery Tanks: Click or tap here to enter text.

[ ]  Raceways: Click or tap here to enter text.

[ ]  Ponds: Click or tap here to enter text.

##### Fish feeding must be conducted in such a manner as to minimize the discharge of unconsumed food.

*Check the boxes to indicate feeding practice(s) used at your site. Use the text fields to* ***describe the applicable feeding practice(s)****. Indicate any additional feeding practices under “Other(s)”. Copy and paste checklist items as necessary for additional practices. For any feeding practice(s) not applicable to your facility leave the check boxes blank and type “N/A” in the text field.*

[ ] Use high quality feeds and seek to minimize nutrient and solids discharges through optimization of feed formulation (in cooperation with feed manufacturers). Click or tap here to enter text.

[ ] Calculate feed conversion ratios by using feed and fish biomass inventory tracking systems. Click or tap here to enter text.

[ ] Use efficient feeding practices. Click or tap here to enter text.

[ ] Manage within the carrying capacity of the production system. Click or tap here to enter text.

[ ] Properly store feed – in areas secure from contamination, vermin, moisture, and excessive heat to maintain feed quality. Click or tap here to enter text.

[ ] Use oldest feed first, and do not store feed beyond the manufacturer’s recommended use date. Click or tap here to enter text.

[ ] Properly dispose of unused feed. Click or tap here to enter text.

[ ] Other(s) Click or tap here to enter text.

##### Fish grading, harvesting, egg taking, and other activities within ponds or raceways must be conducted in such a way as to minimize the discharge of accumulated solids and blood wastes.

*Describe the process(es) used at your facility to minimize the discharge of accumulated solids and blood wastes during fish grading, harvesting, egg taking and other activities within ponds or raceways.* Click or tap here to enter text.

##### Animal mortalities must be removed and disposed of on a regular basis to the greatest extent feasible.

*Describe the process(es) used at your facility to remove and dispose of animal mortalities on a regular basis.* Click or tap here to enter text.

##### Water used in the rearing and holding units or hauling trucks that is disinfected with chlorine or other chemicals must be treated before it is discharged to waters of the United States

*Describe the process(es) used at your facility to treat water used in rearing and holding units or hauling trucks disinfected with chlorine or other chemicals before it is discharged to waters of the United States* Click or tap here to enter text.

##### Treatment equipment used to control the discharge of floating, suspended, or submerged matter must be cleaned and maintained at a frequency sufficient to minimize overflow or bypass of the treatment unit by floating, suspended, or submerged matter; turbulent flow must be minimized to avoid entrainment of solids.

*Describe the process(es) used at your facility to clean and maintain treatment equipment used to control the discharge of floating, suspended, or submerged matter to minimize overflow or bypass of the treatment unity by floating, suspended, or submerged matter.* Click or tap here to enter text.

*Describe the process(es) used at your facility to minimize turbulent flows to avoid entrainment of solids.* Click or tap here to enter text.

##### Procedures must be implemented to prevent fish from entering quiescent zones, full-flow, and off-line settling basins. Fish that have entered quiescent zones or basins must be removed as soon as practicable.

*Describe the procedures implemented at your facility to prevent fish from entering quiescent zones, full-flow, and off-line settling basins.* Click or tap here to enter text.

*Describe procedures used to ensure fish that have entered quiescent zones or basins are removed as soon as practicable.* Click or tap here to enter text.

##### Procedures must be implemented to minimize the release of diseased fish from the facility.

*Describe the procedures implemented at your facility to minimize the release of diseased fish.* Click or tap here to enter text.

##### All drugs and pesticides must be used in accordance with applicable label directions (FIFRA or FDA), except under the following conditions, both of which must be reported to the EPA in accordance with § V., below:

###### Participation in Investigational New Animal Drug (INAD) studies, using established protocols; or

###### Extralabel drug use, as prescribed by a veterinarian.

*Discuss whether drugs and pesticides are used in accordance with applicable label directions (FIFRA or FDA).* Click or tap here to enter text.

*Describe whether any exceptions are in accordance with conditions outlined in 9 (a) and (b) above.* Click or tap here to enter text.

##### **[For Fish Passage Facilities Only]** Procedures must be identified and implemented to minimize the concentration of eugenol when water treated with Aqui-S20E is discharged to Waters of the United States.

*Describe the procedures implemented at your facility to minimize the concentration of eugenol in the discharge (e.g., denaturing, pulsed release, etc.).* Click or tap here to enter text.

##### Procedures must be identified and implemented to collect, store, and dispose of wastes, such as biological wastes. Such wastes include fish mortalities and other processing solid wastes from aquaculture operations.

*Describe the procedures implemented at your facility to collect, store, and dispose of wastes, such as biological wastes.* Click or tap here to enter text.

##### Facilities must dispose of excess/unused disinfectants in a way that does not allow them to enter waters of the United States

*Describe the procedures implemented at your facility to dispose of excess/unused disinfectants.* Click or tap here to enter text.

##### Facilities must implement procedures to eliminate the release of Polychlorinated Biphenyls (PCBs) from any known sources in the facility- including paint, caulk, or feed. If removing paint or caulk that was applied prior to 1980, refer to the EPA guidance (abatement steps 1-4) at <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/caulk/guide/guide-sect4a.htm>. Any future application of paint or caulk must be below the allowable TSCA level of 50 ppm. Facilities must implement purchasing procedures that give preference for fish food that contains the lowest amount of PCBs that is economically and practically feasible.

*Describe the procedures implemented at your facility to eliminated the release of PCBs from any known sources in your facility, including paint, caulk or feed.* Click or tap here to enter text.

***If applicable, use the following text field to describe any additional Operational Requirements BMPs not captured in the checklists or descriptions above.*** Click or tap here to enter text.