State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N, Olympia, WA 98501-1091 • (360) 902-2200 • TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA

July 16, 2014

Mr. Kevin Bright, Permit Coordinator
Icicle Acquisition Subsidiary, LLC
DBA American Gold Seafoods
Post Office Box 669
Anacortes, Washington 98221

Re: 2014 Finfish Aquaculture Operations Permit

Dear Mr. Bright:

Thank you for your recent correspondence to Mr. John Kerwin regarding your application for a 2014 Finfish Aquaculture Operations Permit. The documents attached to that correspondence included the following: (1) 2014 Finfish Aquaculture Plan of Operations; (2) Employee Guidance for Routine Handling Procedures to Minimize the Potential for Escapement; (3) Fish Escapement Prevention Plan (updated June 2014); (4) Fish Escape Reporting and Response Plan (updated June 2014); and (5) Regulated Finfish Pathogen Reporting Plan (June 2014). These documents were submitted to the Washington Department of Fish and Wildlife (Department) to fulfill the requirements detailed in Washington Administrative Code (WAC) 220-76-100. These five documents represent the permit requirements you must fulfill. In addition, as required in the document titled "Regulated Finfish Pathogen Reporting Plan (June 2014)" you are required to develop a Regulated Finfish Pathogen Reporting Plan by October 31, 2014 and a management plan that describes containment actions which will be taken in the event a regulated or exotic pathogen is causing mortality on site. This plan must be completed and on file with the Washington Departments of Ecology and Fish and Wildlife no later than October 31, 2014.

After reviewing the submissions noted above, I am pleased to inform you that the application for a permit that allows Icicle Acquisition Subsidiary, LLC to continue to conduct marine finfish aquaculture in Washington State has been approved. This letter, and the outlined conditions, will serve as your permit.

Permit Conditions:

- In accordance with WAC 220-76-100, this permit is valid for a period of five years from the date of this correspondence.
- The permitted operations must conform substantially to the descriptions set forth in the Plan of Operations (enclosed).

- The species of fish that may be raised at each of the eight identified net pen locations is limited to Atlantic salmon, *Salmo salar*.

- Transgenic fish, as defined in Department regulations at WAC 220-76-100, are not permitted.
- State and federally required pathogen certifications and screenings shall be timely obtained and updated as needed.

- Transport permits must be obtained and followed in connection with the movement of hatchery fish to the identified net pens.

- Reared fish shall be marked as described in the Plan of Operations and annual reference samples sent to the Department.

- The permitted operations shall implement and follow the submitted Fish Escape Prevention Plans (enclosed). Proposed updates to this plan shall be submitted to the Department for prior approval. An annual fish release report shall be submitted in writing to the Department and the Washington State Department of Ecology (WDOE) no later than the last business day of January each year.

- All employee or contractors with responsibility for handling reared fish shall be trained and provided guidance as set forth in the submission entitled Employee Guidance For Routine Handling Procedures To Minimize The Potential For Escapement.

- The 2014 Fish Escape Reporting and Response Plan (enclosed) shall be implemented. For each Significant Fish Release where fish recovery is determined to be feasible, the company shall submit a Fish Recovery Response Report that describes the recovery efforts and their effectiveness. The Report shall be submitted to the Department and WDOE within five working days after termination of recovery efforts, and to local government officials identified by management for the affected farm site.

- The draft June 2014 Regulated Finfish Pathogen Reporting Plan (enclosed) shall be implemented until a revised plan is submitted on or before October 31, 2014, at which time the revised plan shall be fully implemented.

- Failure to substantially comply with these conditions shall be grounds for termination and revocation of the permit. Upon written notice of a violation, Icicle Acquisition Subsidiary, LLC shall undertake those steps necessary to cure the violation within the time period identified. Failure to timely and substantially cure the violation may result in a final termination/revocation notice. Notice of a violation and/or notice of a final termination/revocation shall be deemed served on the day it is placed in the U.S. mail to the permit coordinator identified at the top of this letter unless written notice of a change in the permit coordinator for Icicle Acquisition Subsidiary, LLC has previously been provided to the Department. Permittee may contest a decision to terminate this permit by filing a Notice of Appeal with the Department addressed to the Director in accordance with the provisions of the Administrative Procedures Act (Chapter 34.05 Revised Code of Washington) and as specified in WAC 220-125-050.

Should you have any additional questions, please contact Mr. John Kerwin at (360) 902-2681.

Sincerely,

Philip Anderson
Director

Enclosures

cc: John Kerwin

2014 Icicle Acquisitions Subsidiary, LLC
DBA American Gold Seafoods

Fish Escape Prevention Plans

(Updated June 2014)

I. IDENTIFICATION OF NEW TECHNOLOGIES AND MATERIALS TO MINIMIZE STOCK ESCAPEMENT

The following list represents a few examples of new technologies and materials that Icicle Acquisitions Subsidiary (IAS) will continue researching, developing and implementing at the aquaculture facilities to reduce the risk of fish stock escapement. Icicle Acquisition Subsidiary is serious about minimizing the risks of accidental fish escapes and updating operational procedures that achieve this goal.

- Heavier (210-60 minimum) gauged nylon netting material standards
- Extra chafe netting around the surface perimeter of pens
- Heavy barrier nets to avoid marine mammal predation
- Weighting systems to separate fish nets from barrier nets
- Underwater camera systems to view fish stocks in the pens
- Semi-Rigid plastic barrier netting
- Improved cage structure designs and scheduled replacements

II. SUMMARY OF PAST AND CURRENT IMPROVEMENTS OF EXISTING FACILITIES TO MINIMIZE ESCAPEMENT

The Company has made the following improvements toward further safeguarding their operations from accidental fish escape; 1.) Continually rotating new fish containment nets into the inventories at all the marine sites and retiring older nets, 2.) Replacing and/or improving the perimeter predator barrier netting all the net pen sites, 3.) Replacing the entire floating cage systems with new designs as needed, 4.) Inspections, maintenance and replacement of the mooring systems components with new components as needed and, 5.) Reviewing and updating all Fish Escape Response and Reporting Plans, and the Spill Prevention and Pollution Prevention Plans for WDOE and WDFW. These physical and operational improvements have been carried out to reduce the risks of fish stock escapes and to improve the safety, and working conditions for our employees. Icicle Acquisition Subsidiary is committed to further improving the safe and sustainable operation of their aquaculture facilities. The following is a synopsis of what will be Icicle Acquisitions' ongoing practice and future procedures to reduce the risk of fish escapement.

A. Bainbridge Island Sites

The Bainbridge Island sites (Fort Ward, Orchard Rocks and Clam Bay) are utilizing state of the art pen systems manufactured by Pro Ocean Technology, ASA. These types of cage are designed for high energy locations and can withstand wave heights of over twelve feet. The cages utilize a steel pontoon that runs the entire length of each walkway. This innovation creates a more rigid platform that allows the Company to deploy a heavy pipe frame structure under water that holds the predator netting solidly in place. The heavy pipe frames keep both the predator netting and fish nets tight and separated in the strong currents of Rich Pass. This single improvement significantly reduces the fish stock mortalities caused by sea lion and seal predation. In addition to this, the risks of fish containment nets being torn open by any predators or large floating debris is also greatly reduced. IAS is committed to systematically replacing the containment nets as they are retired with new materials which meet or exceed the above specified 210-60 grade netting. The nets utilized by the IAS farms now have been upgraded to a heavier nylon blend netting or other new materials which have extremely high break strengths. This improvement has both reduced the risk of predator holes in the netting, as well as the possibility of chafe holes occurring from floating debris.

B. Port Angeles, Cypress Island and Hope Island Sites

The Port Angeles, Cypress Island (Sites 1, 2 and 3), and Hope Island (Site 4) cage structures have all been replaced using Marine Construction and Wavemaster manufactured cage systems. Marine Construction and Wavemaster are both leading manufacturers of marine net pens throughout the world. New designs and materials have been incorporated into these cage systems that make them significantly stronger than the previous generations of cage designs. The typical cage design incorporates 2.13 meter wide walkways around the outside perimeter of the cage complex. The walkways are twice as wide as the previous generation of fish cages used by the Washington industry, and have significantly more floatation incorporated into their construction. The increased floatation allows the use of much heavier net weighting designs that are more capable of holding the fish nets rigid and tight in strong currents. The wide walkways also allow for a greater physical separation between the predator nets and the fish containment nets. All fish pen containment nets for these sites have also been upgraded to the heavier nylon blend netting materials or other new net materials. Increased capacities of anchoring equipment have been deployed at all the sites over the past 5 years. All of these factors help contribute towards reducing the risk of fish stock loss from the aquaculture sites.

III. ROUTINE PROCEDURES AND BEST MANAGEMENT PRACTICES TO MINIMIZE THE RISK OF ESCAPEMENTS

This section is broken down into subsections, each of which corresponds to an area that has the potential for a significant accidental fish release. Each subsection contains a discussion of Best Management Practices (BMPs) and routine procedures that are currently utilized to minimize and prevent fish releases from Icicle Acquisitions Subsidiary operated net pens. It is the Company's policy that prevention of accidental fish release is assigned the highest priority, and that all employees receive training in these measures. Copies of these Plans and Procedures are posted at the farm sites and are intended for all employees to review. Section III is to be read in

conjunction with the attached **Employee Guidance for Routine Handling Procedures to Minimize the Potential for Escapement.**

A. Moorage System

- On-site personnel are responsible for the visual checking of surface lines, hardware and mooring points. All employees are instructed to be observant and aware of their surroundings, and to look for any potential mooring system problems. Any defective components shall be replaced or repaired immediately. An annual thorough inspection of the main cage structure will be performed by site personnel.

- After any major storm event, or in the event of a pen system being struck by a vessel or large object, all surface mooring connections and structural cage components will be inspected and any damaged components repaired immediately.

- High-current-end mooring points will be visually inspected underwater every three years by divers or by remotely operated underwater cameras. All other moorages are to be visually inspected every six years. Refitting the anchors with new hardware, line and chain constitutes a visual inspection, since the gear will be pulled to the surface to perform this type of work. Records of inspections are to be kept on site, along with records of repairs and refits. Anchoring maintenance schedules will be established and closely followed.

- Redundancy and over capacity shall be utilized in the moorage system. Accurate drawings and descriptions of the equipment used, dates of deployment and other relevant information shall be kept by site managers.

B. Damage Caused by Floating Debris

- Routine visual inspections for holes in the surface (top 3-5 feet) of netting will be performed by the site personnel on a regular basis. Any breaches or potential problems (logs, debris) shall be immediately resolved.

- Chafe guards will be used on the outside perimeter of fish nets to prevent chaffing as needed. The deployment of predator barrier nets (predator nets) is recognized to reduce the vulnerability of the fish nets being damaged by floating debris, and can be used in place of, or in addition to, chafe guards. In addition, log booms may be deployed around the outside perimeter to also help deflect any floating debris when necessary.

- Divers are instructed to be observant and visually check for holes in the net surfaces during their routine fish mortality collection dives performed each week. Routine mortality dives are to be performed at a minimum of one dive per week per individual pen. There is to be no variance from this minimum standard unless, the safety of the dive operation is threatened by weather or other physical

conditions. If any holes are found the diver will immediately make repairs. Divers shall carry net mending needles with them at all times as to facilitate immediate repairs if necessary.

- Before use, all nets (new or used) are to be inspected for holes, manufacturing defects or visually weak areas. A log will be maintained on site which will record the date of manufacture, a description of the net, the location of the net (pen number) and any other pertinent information on the netting. The typical lifespan of the netting material is six years in normal use. Net integrity shall be monitored by site managers and nets are to be retired from service if they are determined to be at the end of their functional lifespan.

C. Damage Caused by Predation

- Icicle Acquisitions Subsidiary will use nets with a minimum of 210/60 nylon netting or other equivalent material.

- Fish mortalities shall be collected a minimum of twice per week, and more frequently if necessary. The frequent removal of fish mortalities is recognized to reduce the potential for attracting predators toward the pens.

- Divers shall be instructed to always observe the netting for any holes or potential problems each and every time they are diving in and around the fish pens. Divers shall carry net needles and twine with them when diving the pens, in order to facilitate quick repairs if necessary.

- Divers shall perform thorough inspections of the net floors and walls whenever there is evidence that a predator attack on that specific pen has occurred. Excessive presence of marine mammals near the pen, the behavior of fish stocks, and/or the visual sighting of a marine mammal with prey (salmon) in its' mouth are all sufficient reasons to warrant a dive check on the suspected pens.

- Barrier nets (predator nets) are recognized to help prevent marine mammal predation. Such nets will be used at certain times of the year and on the certain locations that have a higher incidence of predation. Predator nets must be removed periodically for maintenance or repair and should be scheduled at times of the year when less marine mammal activity is anticipated or the site is being fallowed. Each predator net will be designed specifically for the environmental conditions experienced at the particular site. These nets should be periodically checked for breaches and any damage immediately repaired.

- New netting materials, net treatments, designs and weighting systems shall be continually investigated with the objective of further securing fish stocks and minimizing the loss of fish due to predation and/or escapement.

D. Site Security

- Night watchmen and/or other security devices shall be utilized to help prevent theft or loss of fish stocks and equipment. Security cameras may be used at all the sites in the future.

- Pen sites are to be properly lighted with U.S. Coast Guard approved navigational warning lights. Nighttime personnel are responsible for checking that navigational lights are working properly.

E. Transport or Handling Loss (see also attached Employee Guidance)

- Secondary containment nets are to be used in areas where the process of fish handling could potentially release fish by spills or other accidents. Catch nets are to be placed under braile harvest operations, grading tables, and smolt transfer operations, in areas where there is the most potential for accident causing an escapement.

- Hoses, pipes and chutes are to be secured tightly before fish are transported through them. Potential escapement areas are to be identified by the site staff and monitored during the transfers.

- Environmental conditions such as tide and weather are to be given top priority so that movement of fish stocks can be carried out safely.

IV. PROCEDURES TO MINIMIZE ESCAPEMENTS WHEN REARING VESSELS, PENS OR CAGES ARE MOVED, REPAIRED OR MANIPULATED

It may be necessary to move or otherwise manipulate net pen systems for several reasons, including but not limited to: (1) routine maintenance or repairs; (2) permit requirements; (3) husbandry practices; or (4) adverse water conditions. This Section IV contains procedures for movements that are planned and not due to emergency conditions. Movement of the entire cage complex during cases of adverse water quality conditions is not considered a viable option by American Gold Seafoods. Therefore procedures for emergency movement of net pens during algal blooms have not been developed for the purposes of this document. Development of new equipment and methods of mitigating stock mortalities in the event of adverse water conditions will be employed as an alternative to towing the net pens. The following subsection A.) Describes procedures for moving net pens in non-emergency situations; while subsection B.) Describes alternative measures to moving net pens during adverse water conditions.

A. General Procedures for Moving Net Pens in Non-Emergency Situations

- On-site personnel shall carefully coordinate with management personnel regarding the need to remove fish stock from pens in connection with movement, repair or manipulation of the pen systems. In general, fish stocks should be

removed prior to performing any operation with or on the pen system that may result in a significant threat to its structural integrity. Removal of fish stock will alleviate the possibility of accidental release due to damage to the net or cage structures during the operation.

- Prior to moving a net pen system containing fish to a different site or reorientation in the same site, on-site personnel shall review current and applicable bathymetric information, including N.O.A.A. charts, to determine that there exist adequate depth and lack of underwater obstructions and hazards along the intended route of travel. In the case of relocations or other significant movements, the planned route shall be laid out on a chart and discussed with the operator of the tugboat or other vessel assisting in the move, prior to the operation commencing.

- If company employees and vessels are used in moving a portable pen containing fish, the employees shall be fully briefed in advance of the operation and review the applicable charts or diagrams if needed for the move.

B. Adverse Water Conditions Mitigation Measures Utilized to Prevent Towing of Fish Pens

- In the past, the primary reason for emergency movement of net-pen systems was to mitigate the effects of water quality degradation caused by toxic phytoplankton blooms. The Company has decided that the towing of entire net pen systems is not a viable option. The physical size of the newer pen systems and the integrated predator nets would make towing an entire cage system very difficult. Newer technology and methods to mitigate losses due to algae blooms shall be utilized rather than towing an entire net pen complex. Mitigation equipment such as air lift pumps, compressors, surface agitators, tarps and improved plankton forecasting methods shall be utilized. The equipment plans and procedures for its use shall be set up prior to each bloom season by the site managers. Employees shall be knowledgeable of the equipment and proper deployment.

- The reduced or suspended feeding of fish stocks prior to exposure to high plankton counts is recognized as the best way to increase the survival of the cultured fish stocks. Management shall error on the side of caution by taking fish stocks off feed when toxic plankton blooms are detected and conditions warrant this type of mitigation. The on site personnel are responsible and have the authority to alter feeding as conditions warranted.

- The salmon farms utilize periodic aerial surveys of toxic phytoplankton blooms as a forecasting tool. During the times of year that plankton blooms are most prevalent, aerial surveys shall be performed to identify known "hot spots" and provide advanced warning to the farm sites of adverse water conditions.

- An employee responsible for plankton monitoring at each location shall be available, at least five days per week from May 15 to September 15 of each year, for the purpose of sampling, analyzing and predicting water quality conditions.

The employee shall be trained in the identification and quantification techniques necessary to properly ascertain the presence and severity of a harmful algae bloom (HAB). A criteria list shall be posted at each site that sets guidelines for HAB action levels. The employee will oversee the related sampling at the farm sites and coordinate closely with on-site personnel and management in the identification and tracking of blooms using all available information. The on-site personnel have the authority to alter feeding as conditions warrant.

- If any employee receives information that any site may be threatened by a HAB event, he or she shall immediately notify management. Monitoring and mitigation measures are to be increased accordingly in order to prevent stock loss.

V. PROCEDURES FOR ROUTINELY TRACKING THE NUMBER OF FISH

- Pursuant to American Gold Seafoods inventory control procedures, fish shall be tracked and monitored on a data base. Icicle Acquisitions Subsidiary will periodically update and improve inventory tracking procedures and ensure that responsible employees are well trained in this regard.

- During their stay in the rearing pens, fish shall be observed from the surface by site personnel on a routine basis while feeding, diving for mortalities, or other husbandry practices. Any significant changes in visual surface behavior or feeding responses shall be reported to site managers. Fish mortalities shall be removed by divers or other means from the fish pens a minimum of twice per week. When mortalities are collected from each pen, the number of mortalities is recorded by site personnel in log books and subtracted from the total population of the pen on a weekly basis.

- During their saltwater residence, the fish can be re-enumerated during the growing cycle. A significant breach of net integrity and/or other extraordinary events will be cause to alert staff that a potential emergency stock loss has occurred. Several methods of physically counting may be utilized in re-enumerating a pen. Electronic counters and hand counters are the two primary methods used by the industry at estimating the number of fish. The **Icicle Acquisitions Subsidiary, LLC- Escape Reporting and Response Plan** will cover those emergency procedures.

VI. PROCEDURES FOR PERIODIC REVIEW

IAS Management shall review the various plans on an annual basis to determine if any revisions are needed.

VII. SUBMISSION OF ANNUAL FISH RELEASE REPORT

Icicle Acquisitions Subsidiary shall submit an Annual Fish Release Report to the Washington Department of Ecology and the Washington Department of Department of Fish & Wildlife, by the last day in January of each year. The report shall summarize, by month and pen site, the number, age class, disease and medication history, and cause of all known fish releases to waters of the State. The report shall include to the extent possible, all known releases, including Significant Fish Releases as defined in the Icicle Acquisitions Subsidiary Fish Escape Reporting and Response Plan. IAS will summarize in the report the actions taken over the previous year to minimize the release of farmed fish to waters of the State.

Icicle Acquisition Subsidiary, LLC
DBA American Gold Seafoods

2014 Fish Escape Reporting and Response Plan

Updated June 2014

I. DEFINITION OF "SIGNIFICANT FISH RELEASE"

A "Significant Fish Release" shall mean a release of 1,500 or more fish, whose average weight exceeds 1 kg., or 3,000 or more fish shows average weight is equal to or less than 1 kg., in a single incident.

II. EMERGENCY CONTACT LIST

In the event of a Significant Fish Release, as defined above, Icicle Acquisitions Subsidiary employees shall utilize the following emergency contact list:

Vice President Aquaculture:	Alan Cook	206-384-9017
General Manager Main Office:	Innes Weir	206-402-2247
Anacortes Office:	Kevin Bright	360-391-2409
Cypress Island Sites:	Shaughn Hollcroft	360-305-1520
Bainbridge Island Sites:	Rick Safford	206-452-9638
Hope Island Site:	Tom Glaspie	360-391-9504
Port Angeles Sites:	Randy Hodgin	360-461-3694
Washington Dept. of Fish & Wildlife:	Main Office	360-902-2200
WDFW Aquaculture Coordinator:	John Kerwin	360-902-2681
Washington Dept. of Ecology:	Lori LeVander	425-649-7039
Dept. of Ecology NW Region:	24 Hour Line	425-649-7000
Dept. of Ecology SW Region:	24 Hour Line	360-407-6300
WDNR Aquaculture Coordinator:	Jeff Schreck	360-374-6131
National Marine Fisheries Service:		206-553-0633
Northwest Indian Fisheries Commission:	Bruce Stewart	360-438-1180
Washington State Dept. of Health		360-753-5992

III. EMERGENCY PROCEDURES FOR DETERMINING AND REPORTING A SIGNIFICANT FISH RELEASE

A. Investigation

- If a pen is suspected of having a breach in net integrity large enough to result in a large fish escapement, the fish will be monitored closely using underwater video and/or surface observations for any signs that a Significant Fish Release has occurred. Signs such as unexplained decrease in feed response, reduced schooling behavior, and farmed fish swimming on the outside of the pen are examples that a large reduction in the number of fish from a pen may have occurred. If the farm management team decides that a Significant Fish Release has occurred, the suspected pen or pens are to be inspected by divers no later than 24 hours after making that determination. If this conflicts with the safety of the dive personnel because of any hazardous conditions such as extreme tides, extreme storms or nightfall, the safety of the dive team is to be given priority and the dive inspection carried out as soon as conditions allow. The following sections cover the emergency procedures if a significant escapement has occurred.

- If an employee has reason to believe that a Significant Fish Release has occurred, the employee shall immediately report the possible occurrence to management. Telephone numbers for such reporting shall be posted at each site.

- Management shall investigate and determine whether a Significant Fish Release has occurred, based on one or more of the following factors (not listed in any order of priority): (1) observations of fish response inside the net-pen; (2) observations of farmed fish outside the net-pen; (3) feed intake; (4) review of inventory information, method of inventory, and any other pertinent information; (5) observations of significant net holes or other breaches of net-pen integrity; (6) abnormally high presence of predators; and (7) any other reasonable indication of a Significant Fish Release.

B. Reporting Procedures

A positive determination by management that a Significant Fish Release has occurred shall constitute "knowledge" on the part of Icicle Acquisitions Subsidiary that a Significant Fish Release has occurred and shall trigger the reporting and recovery procedures contained in this Plan. Within 24 hours of Icicle Acquisitions Subsidiary management having knowledge that a Significant Fish Release has occurred, the company shall submit an Accidental Fish Release Report, in the format specified in Subsection C below, to the Washington Departments of Fish and Wildlife (WDFW) and the Washington Department of Ecology (WDOE) and to other local government officials. A "Contact List" of pertinent local officials shall be maintained at each site. The Accidental Fish Release Report shall also be submitted to the Washington Department of Health, if there has been a recent use of medicated feed on the reported escaped farmed fish as determined under Section IV of this Plan (See Procedures for Determining Medicated Feed Usage).

C. Accidental Fish Release Report Format

Fish Release Report No.: _____ Age Class of Fish: _____

Location: _____ Disease History: _____

Date of Release: _____ _____

Date of Submission: _____ Medication History: _____

Number of Fish: _____ _____

Species of Fish: _____

Avg. Weight of Fish: _____ Employee Signature: _____

Cause of Release: _____ Employee Position: _____

IV. PROCEDURES FOR DETERMINING MEDICATED FEED USAGE IN ESCAPED FISH

Under requirements of the Washington Department of Ecology NPDES permits, each site maintains a Disease Control Chemical Use Log and/or fish inventory system which records all medicated feed used at the site. If medicated feed is used on a pen, the amount fed, the type of treatment, and last date of use will be recorded in the log books and/or in the inventory system. Examples of the minimal withdrawal times prior to human consumption for two antibiotics used on food fish are: Oxytetracycline- 21 days from last day of treatment; Romet- 42 days from the last date of treatment. In the event of a Significant Fish Release, management will review the feeding records with respect to any current medication history. If it is determined that the fish are still within the above recommended withdrawal periods, the Department of Health will be notified as described above.

V. EMERGENCY PROCEDURES TO MINIMIZE FISH RELEASES

- All farm site areas will have a licensed scuba diver available to respond to any problems that may result in net damage and the subsequent release of fish stocks. The immediate repair of any breach in netting that could result in fish escapement is to be given top priority by site staff. Icicle Acquisitions Subsidiary will maintain a staff of divers and/or contract divers to accomplish the safe emergency repairs in a quick and efficient manner. Each site will carry stocks of net needles, twine, extra netting and spare line to assist divers in net repairs. A list of divers and phone numbers is to be available at the sites and to the site managers.

- If an escapement event can be minimized without the use of divers, Icicle Acquisitions Subsidiary employees are instructed to immediately attempt any and all such measures to minimize any further losses of fish stocks. Examples of such emergency measures are as follows: (a) pulling a net wall out of the water if the hole is near the surface; (b) suspending a piece of spare netting, or seine nets over the area where a net breach occurred to block passage; and (c) changing the shape of the affected fish pen to block access to the area where hole(s) may be located.

- Accidental fish release information **shall be reported** to management. Specifically, the following information shall be reported and maintained in a log book and/or tracking spreadsheet:

    1. Date of accidental release;
    2. Pen number(s);
    3. Estimated number of fish accidentally released;
    4. Age class and size;
    5. Disease and medication history;
    6. Cause of release; and
    7. Actions taken to minimize or stop the release.

VI. PROCEDURES FOR RECOVERY OF ESCAPED FISH

Each farm site shall have procedures for recovering escaped fish that are based on the requirements of this Section. The sites will have posted contact numbers for various fishing boats and processors that can be contacted in case of an emergency.

A. Recapture Procedures

1. The site's first priority shall be to determine and correct the cause of the fish release through repair and closure of the net hole(s), securing of net pens, and other appropriate response actions. The site's second priority shall be to determine whether a Significant Fish Release has occurred.

2. Upon the company acquiring knowledge that a Significant Fish Release has occurred, management shall make a determination regarding whether recovery of escaped fish through recapture is feasible. Such a determination shall be made on the basis of whether visual observations and other relevant information indicate that the escaped fish are sufficiently concentrated in an area where recapture of a significant number of fish is probable using commercial netting techniques. If the determination is positive, the company shall commence the recapture measures described below.

3. The company's management shall contact the Washington Department of Fish and Wildlife (WDFW) to seek approval for measures to recover escaped fish in the area of the escapement. Such measures may include the use of company skiffs and seine nets and/or contracted Tribal and commercial fishing vessels. Authorization by WDFW must be obtained before commencing any recapture efforts of the farmed fish.

4. Upon receiving authorization from the WDFW, the site shall immediately commence recovery of fish through one or more of the following actions: (1) use of company skiffs and seine nets; (2) contacting the Northwest Indians Fishery Commission to advise Tribal fishermen of the potential recovery process; and/or (3) contacting and engaging the services of commercial fishing boat operators to advise them of the recovery process. Whenever possible, recapture shall be accomplished using company skiffs and seine nets which are immediately available on-site.

5. If deemed appropriate by the company and the WDFW, the site shall contact the Northwest Indian Fishery Commission and local commercial fishermen to advise them

of the possible recovery process to recapture escaped fish in the event of a Significant Fish Release. Management shall develop and maintain a list of helpful contacts to facilitate any recovery efforts.

6. The site shall continue recapture efforts until Icicle Acquisitions Subsidiary management and/or the WDFW personnel determine that further recovery efforts are no longer practicable due to dispersal of the fish or reduction of their numbers due to recapture or for other reasons.

7. Within five working days of terminating fish recovery actions, the company shall submit the Fish Recovery Response Report to local government officials identified for that site, and to the WDFW and WDOE. The format for this report is described in the following Subsection.

B. Fish Recovery Response Report

For each Significant Fish Release where fish recovery is determined to be feasible, the company shall submit a Fish Recovery Response Report that describes the recovery efforts and their effectiveness, in the format appearing below. The Report shall be submitted within five working days after termination of recovery efforts to the WDFW and WDOE, and to local government officials identified by management for the affected farm site.

Icicle Acquisitions Subsidiary, LLC

Fish Recovery Response Report

Reference to Fish Release Report No.:_____

Inclusive Dates of Attempted Recovery: _____

Date of Submission of Report: _____

Type of Recovery Efforts Made by Farm Personnel, Contractors and Others: _____

_____

_____

Description of Recovery Gear Used: _____

_____

Describe Area(s) of Attempted Catch: _____

_____

_____

Total Catch of Escaped Fish: _____

Incidental Catch of Wild Fish (Species and Numbers):_____

_____

_____

Employee Name and Signature: _____

Employee Position: _____

Icicle Acquisitions Subsidiary, LLC

Accidental Fish Release Report Form

Fish Release Report Number: _____

Date of Release: _____

Date of Submission to Agency: _____

Location of Release: _____

Number of Fish Escaped: _____

Species of Fish: _____ Year Class of Fish: _____

Avg. Weight of Fish: _____

Disease History: _____

Medicated Feed History (type and date of last treatment): _____

_____

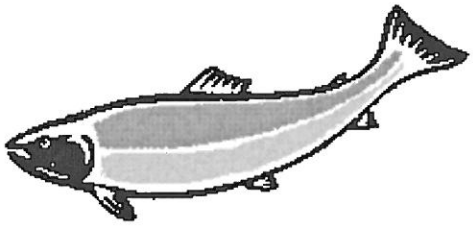
Cause of Release: _____

_____

Employee Name and Signature: _____

Employee Position: _____

The Accidental Fish Release Form is to be submitted to WDFW, WDOE and WDOH in the event of a Significant Fish Escape.



2014 ICICLE ACQUISITION SUBSIDIARY, LLC
DBA AMERICAN GOLD SEAFOODS
(Updated June 2014)

EMPLOYEE GUIDANCE FOR ROUTINE HANDLING PROCEDURES TO MINIMIZE THE POTENTIAL FOR ESCAPEMENT

The following guidance has been developed for Icicle Acquisition Subsidiary, LLC employees to utilize in their day-to-day functions. By following these basic procedures, Icicle Acquisition Subsidiary (IAS) farm staff can greatly reduce the risks of accidental fish escapements from ever occurring at the saltwater sites.

Every farm staff member is responsible for knowing the content of this guidance and where to access it. *Regular review* of the guidance is essential in understanding how to **prevent escapes** and how to **respond appropriately** if an accident does occur.

This guidance manual is to be used in conjunction with the 2014 Icicle Acquisition Subsidiary- Fish Escape Prevention Plan, and the 2014 Icicle Acquisition Subsidiary- Fish Escape and Reporting Plan.

Fish Handling Procedures Designed to Prevent Escape

Except for ensuring human safety, **secure containment of fish in nets is to be the highest priority activity at the Icicle Acquisition Subsidiary sites**. Any fish handling procedure in marine fish farming involves some level of risk of fish escapement. **It is incumbent on all farm staff, service people and contractors to minimize this risk through:** *careful planning, preparation, adoption of strict handling procedures, proper use of quality equipment and ongoing supervision and maintenance of the handling event.*

Care and attention in handling of fish is of course essential in **reducing stress** and injury potential to the fish as well. Proper handling will provide both short and long term benefits in improved fish health and growth potential.

I. GENERAL PROCEDURES THAT WILL APPLY TO ALL FISH HANDLING PROCEDURES TO MINIMIZE ESCAPE POTENTIAL

- Carefully **planning** the operation to minimize the amount of time and distance fish are required to travel.
- **Preparation and assembly** of equipment so that it is stable secure and "fish-friendly."
- Supplying containment under and around any part of the handling operation which prevents **any** possibility of fish escape.
- **Inspecting** the equipment and procedures **before** commencing to ensure their integrity and soundness.
- **Communicating** plans and procedures to all personnel before beginning.
- Undertaking fish handling only when environmental conditions **are suitable**.
- **Observing** the event to make sure that any problems are dealt with immediately.
- **Takedown** of the equipment and resetting of net pens will be done with care and attention and **inspected for completion** by the site supervisor.
- Any **anchor lines detached** to facilitate a handling event are to be **reconnected** without delay.

II. SPECIFIC PROCEDURES FOR HANDLING EVENTS

Over the life cycle of a farmed fish, handling events undertaken at the farming sites during the marine production phase may include: Smolt transfers, Swim Over, Grading, Counting and Harvesting

A. Smolt Transfers

- Farm staff needs to have made sure that predator nets and net pens in the docking/ offload zone are adequately weighted so they will **not** be drawn or deflected into the propeller or other boat fittings by prop suction or tide.
- **Communication** is critical at this time, and a **farm staff** must indicate clearly where the vessel can dock safely.
- Large vessels are to be **tied securely to the system mainframe** and as close to the system as conditions allow.
- The vessel captain has the ultimate responsibility for berthing and exiting safely.
- Escape security in the case of pumping fish off is provided by lashing the out feed hose tight to the pen system mainframe with the hose end well into the receiving net pen.
- When the vessel captain and site supervisor have **inspected and passed** the out feed system, offloading may begin.
- **Progress** of the offload will be **monitored closely** and the equipment inspected regularly to ensure that any process failure is dealt with immediately.

B. Swim-Over Movements Between Pens

A **swim-over** method may be used to transfer fish from one pen to another and is particularly useful where a very **low stress move requiring little equipment** is desirable. In the operation, fish move from an origin pen through a shallow **swim over tunnel section** formed under a pen system walkway by mating the original net pen **jump portion**. Other planning considerations during the movement of fish are that the tide flow is minimal, weather must be favorable and a substantial amount of time allocated for the fish to swim across without being rushed.

- **Ensure** that environmental conditions are favorable and time allowed for the move is adequate.
- **Examine** the jump portions of both net pens that are in the swim over area for holes and repair any that are found.

- After a **successful final net and rigging security check**, the process of moving fish through the tunnel may begin, with seining and/or net shallowing and cork lining providing the motive force.
- **Constant supervision by experienced staff** of the entire procedure is mandatory.
- When the transfer of the required fish through the tunnel is complete, the *origin* end of the tunnel is pulled up and re-secured above the water, **the tunnel is verified as clear of remaining fish**, and the *destination* end of the tunnel is pulled up and secured.
- A **final inspection** is to be done to ensure net security.

C. Grading Operations

Over the life cycle of farmed salmon, the fish may be size graded. A number of techniques and equipment types are available to achieve the goal of sorting fish. **Size grading** can usually be accomplished with **mechanical equipment** which isolates fish based essentially on their length, and width. Grilse grading is generally accomplished by manually grading fish based on visual appearances. In this method, visual cues and examination of the body shape by experienced personnel provide the main selective criteria.

1. General Rules That Apply to All Grading Operations

- The need to **account for unfavorable environmental conditions** like extreme weather, strong tides and to provide for working in daylight hours if at all possible.
- The level of energy will **rise** with **increasing fish size and maturity level.** Appropriate equipment for the size of the fish is necessary to ensure safe handling.
- Providing a **catch net** well supported off the deck to form a basin capable of *retaining the size of fish being graded* and **fitting the net** under and around all parts of the operation which pose a risk of fish escapement.

2. Size Grading

As discussed, Icicle Acquisition Subsidiary uses **a range of mechanical equipment** to grade for size separation. 'Belt graders', 'bar graders' and combination 'belt and bar graders' such as the 'Melbu' unit may all potentially be used at some point in production. In addition, manual size grading by visual appearance will also be utilized.

Characteristics that all **grading operations** have in common include a means of supplying fish to the grading unit or vessel. The method of lifting fish in the grader might be an airlift system, vacuum stage pump, centrifugal pump, crane operated wet brailer, hand brailing with a dip net or a grade seine net.

- Whatever method is used, inspecting the integrity of all elements of the unit and lashing of any hose or pipe connections must be done in advance, and *a fish-free test run* be performed to verify safe and secure operation of the handling method.

- Electronic or manual means of enumerating fish. If used, electronic counters must be of adequate size for the fish being graded to ensure they do not constrict the fish flow and cause potential fish escapement.

D. Harvesting

Coming at the end of the production phase is the requirement to load and transport fish from the grow out facility to the processing plant. A **well boat** is the normal method.

1. Procedures and Precautions to be Followed in Harvesting Fish

- Unloading of harvest fish will often take place *at night* so that fish will arrive at the processing plant to best take advantage of processing staff availability.

- Any **preparation** for the harvest event that can be done in **advance** (e.g.: moving of anchor lines, advance shallowing of net pens, laying out of the seine net, unrigging of jump lines, compressor maintenance, etc.) is to be completed in **daylight hours** to reduce risks to staff safety and fish security.

- On arrival at the marine farm site, procedures must be followed to ensure that the well-boat does not damage the net pens or cage structures on docking.

- Farm staff needs to ensure in advance that predator nets and net pens in the docking/loading zone are adequately weighted so they will **not** be drawn or deflected into the propeller or other boat fittings by prop suction or tide.

- **Communication** is critical at this time, and a site staff must indicate clearly where the vessel can dock safely.

- Large vessels are to be **tied** securely to the **system mainframe** and as tight to the system as conditions allow.

- The vessel captain has the ultimate responsibility for berthing and exiting safely.

- Any of several methods of unloading harvest fish may be employed. Wet brailers, very large centrifugal or vacuum cycle pumps and, airlift systems can be used to transfer harvest fish from the net pen onto the well vessel. These systems must be secured as described in Grading section above and pre-tested for security and function before fish are sent through them.

- As in any handling procedure, **the best defense against fish loss and escape will be the deployment of a suitable catch net under and around any element of the process which poses any risk of fish escaping.** Wet brailer bags and fittings, transfer hose and fittings and vessel hold 'jump fences' all need regular inspection for integrity.

- Constant **supervision** of the on load procedure is required to ensure that no problems develop.

- When the loading of harvest fish is complete, the farm personnel are to make sure that the vessel *exits* from the docking area without damaging nets or containment structures.

2014 Fin Fish Aquaculture Plan of Operation

Updated June 2014

Icicle Acquisition Subsidiary, LLC
DBA American Gold Seafoods

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June 2014

Overview of the Existing Aquatic Farming Operations

Icicle Acquisition Subsidiary, LLC is a Washington based aquaculture company doing business under the name American Gold Seafoods (AGS). The company employs over 80 full time people and has operations in five different counties (Clallam, King, Kitsap, Skagit, and Thurston). The marine aquaculture sites have been rearing salmon in Puget Sound for over 30 years now and cultivate the fish from egg incubation to harvest sized fish for the commercial market place. Aquaculture operations like these supply a quality fresh salmon product to seafood consumers throughout the entire year.

The company owns two freshwater hatcheries located in southwest Washington that produce salmon smolt (juveniles) for the marine net pen facilities. Captive brood stock is used to produce ova for incubation at the hatcheries. The brood fish are screened for disease throughout their life cycle and as they are spawned to produce the next generation. After fertilization, it takes approximately 3 years to culture the eggs into marketable harvest sized adult fish. Production fish are harvested, processed, packaged and then shipped out fresh to seafood customers located across the United States. The company can produce over ten million pounds of fresh farmed salmon each year and is dedicated to producing high quality salmon in an environmentally sustainable manner. Sustainable aquaculture operations are recognized by the United Nations Food and Agriculture Organization (2014 UNFAO World Fisheries and Aquaculture Report), as a way of increasing the global food supply to meet an ever increasing human population.

American Gold Seafoods has a proactive and cooperative history of improving the environmental sustainability of the farming operations. Codes of Practice; Best Management Practices (BMP's); environmental monitoring; performance based standards; Pollution Control Plans; and the cooperative development of the Washington Department of Fish and Wildlife-Marine Fin Fish Aquaculture Rules, are all examples of Icicle Acquisition Subsidiary ongoing commitment to a sustainable and responsible aquaculture operation.

I. PLAN OF OPERATION FOR WASHINGTON NET PEN FACILITIES

The management and the employees of American Gold are committed to the goal of reducing the risks of accidental losses of fish stocks from AGS marine net pen facilities. The following is a synopsis of the operational and environmentally protective procedures that are currently in effect, or will be incorporated the marine facilities.

A. Species, Stock and Race of Cultured Fish

The species of fish that will be raised at all eight locations (Attachment A) of the Icicle Acquisition Subsidiary net pen facilities will be Atlantic salmon, Salmo salar. Atlantic salmon stocks have become highly domesticated with the recent development of a salmon aquaculture industry over the past thirty years. Atlantic salmon are the predominant species commercially reared in marine fin fish aquaculture facilities throughout the world. Selective breeding of captive brood stock for multiple generations has made Atlantic salmon easier to cultivate in captivity than the Pacific salmon species. The Atlantic salmon stocks used by AGS originate from brood stock lines that have been have been selectively bred for over 30 years. Past research has shown Atlantic salmon do not successfully crossbreed with the Pacific salmon species. This biological barrier significantly reduces the risk of escaped farmed Atlantic salmon from being able to interfere with the genetic makeup of the Pacific Northwest salmon stocks. Domesticated Atlantic salmon stocks are an ideal candidate for cold water marine net pen aquaculture.

B. Fish Health Certifications and Screenings

Pathogen certifications and screenings are required under federal and state regulations to ensure that aquaculture products do not introduce fish pathogens into Washington State. AGS hatcheries and brood fish undergo screenings each year by an independent veterinary service for pathogen free certification. AGS applies for a WDFW Fin Fish Transport Permit for the movement of juvenile fish from the hatcheries to the marine net pen facilities. Brood stock are routinely screened throughout their captive growing cycle and at spawning for viral and bacterial pathogens. Negative results from those samples are necessary for the issuance of a Transport Permit from the WDFW.

C. Otolith Marking

AGS otolith marks all Atlantic salmon it uses at the marine sites. All fish hatched by AGS undergo a marking procedure developed in conjunction with WDFW personnel. Fry at the hatchery receive the same treatment that uniquely imprints the otiliths and identifies them as AGS fish stocks. Reference samples are sent in each year to WDFW for their identification records. This methodology has been successfully tested with cooperation from WDFW staff, and has become a standard operating procedure with AGS hatchery staff since December 2003.

D. Transgenic Fish

Transgenic fish, as defined in WDFW regulations at WAC 220-76-100, will not be used at any of marine net pen facilities.

E. Operational Procedures for Escape Prevention, Reporting and Recapture

Copies of the updated **2014 Icicle Acquisition Subsidiary, LLC Escape Prevention Plans**; the **2014 Icicle Acquisition Subsidiary Escape Reporting and Recapture Plans**; and the **2014 Icicle Acquisition Subsidiary Employee Manual on Escape Prevention** are included with this renewal application for WDFW. These plans were developed in compliance with both the Washington Department of Ecology's NPDES permit requirements, and the Washington Department of Fish and Wildlife. Copies of these updated plans will also be submitted to the Washington Department of Ecology for their records and in compliance with each facility's NPDES permits.

Provisions for the development of a Regulated Finfish Pathogen Reporting Plan and a Fish Mortality Action Plan are included with this document in cooperation with the Washington Department of Fish and Wildlife. The Regulated Finfish Pathogen Reporting Plan and Mortality Action Plan serve as outlines for the development of reporting plans, operational plans and disposal plans by October 31, 2014. Additionally, the company will continue to work with the Washington Department of Fish and Wildlife, the U.S. Fish and Wildlife Service and the U.S. Department of Agriculture-Animal and Plant Health Inspection Service (USDA, APHIS) in the ongoing surveillance for *Infectious salmon anemia virus* (ISAV). American Gold Seafoods is committed to raising healthy fish stocks and will continue to proactively work to reduce the risk of disease at the aquaculture facilities.

ATTACHMENT A

Facility Name	WDOE NPDES #	WDFW Aquatic Farm #	Facility Location	Lat/Lon	Water Body I.D. Number
Port Angeles	WA 004089-4	8225-01	Port Angeles Harbor, Ediz Hook Clallam County	48 08' 23" 123 25' 07"	WA-18-0020
Fort Ward	WA 003153-4	8530-01	Rich Passage NW of Beans Point Kitsap County	47 34' 30" 122 31' 30"	WA-15-0030
Orchard Rocks	WA 003154-2	8530-01	Rich Passage NW of Beans Point Kitsap County	47 34' 30" 122 31' 50"	WA-15-0030
Clam Bay	WA 003152-6	8530-01	Rich Passage, Manchester, WA Kitsap County	47 34' 15" 122 32' 25"	WA-15-0030
Site 1	WA 003156-9	8218-02	Deepwater Bay, Bellingham Channel Skagit County	47 33' 16" 122 41' 01"	WA-PS-0010
Site 2	WA 003157-7	8218-03	Deepwater Bay, Bellingham Channel Skagit County	48 33' 26" 122 41' 05"	WA-PS-0010
Site 3	WA 003158-5	8723-01	Deepwater Bay, Bellingham Channel Skagit County	48 33' 39.8" 122 40 46"	WA-PS-0010
Site 4	WA 003159-3	8218-04	Skagit Bay North Hope Island Skagit County	48 24' 28" 122 33' 32"	WA-PS-0010

2014 Icicle Acquisition Subsidiary, LLC

DBA American Gold Seafoods

Regulated Finfish Pathogen Reporting Plan

(June 2014)

A. Disease Reporting Plan Submittals and Requirements

The Permittee must:

1. Prepare and submit to the Washington Departments of Ecology and Fish and Wildlife (WDFW) a Regulated Finfish Pathogen Reporting Plan by October 31, 2014. The Permittee must submit a paper copy and an electronic copy (PDF file). The plan and any subsequent revisions become effective 30 days following submission;
2. Review the plan at least annually and update the Plan;
3. Send any changes to the plan to Ecology and WDFW;
4. Follow the plan and any supplements throughout the term of the permit; and
5. Keep a copy of the plan on each site and make available to Ecology and WDFW upon request.

B. Disease Reporting Plan Components

The disease reporting plan must include the following information and procedures relating to the reporting of regulated fish pathogens at the marine net pens. The plan must include:

1. A description of a reporting system the Permittee will use to immediately notify facility management, WDFW, Ecology and any other appropriate state, federal, and local authorities of the confirmed positive identification of a regulated fish pathogen, and provisions to provide a written follow-up report within three days;
2. A description of operator training, equipment, and facilities available for responding to the positive identification of a regulated fish pathogen at the net pens;
3. Management Procedures to mitigate an occurrence of a regulated fish pathogen including;
    a. Identification and risk assessment of the regulated pathogen;
    b. Handling and transfer of infected live fish from the individual pens that have a confirmed positive identification for the regulated pathogen;
    c. Loading and unloading operations to sanitarily remove dead fish from the pens which have been confirmed positive for a regulated fish pathogen;
    d. Measures, disposal facilities, employee training and equipment for the appropriate response; and
    e. Management plans for the harvest and/or culling of the live fish population which have been confirmed positive with the regulated fish pathogen.

The Permittee may submit plans and manuals required by other agencies which meet the intent of this section.

C. Fish Mortality Removal Action Plan

All fish rearing facilities will be required to have a management plan on file with the Washington Departments of Fish and Wildlife and Ecology that describes containment actions which will be taken in the event a regulated or exotic pathogen is causing mortality on site. These Management plans will be reviewed every five (5) years, or more often if necessary, and should contain the following elements:

1. Process, including names and telephone numbers, of notifying WDFW, DOE and other regulatory authorities of the pathogen detection;

2. The confirmed detection of a Regulated Finfish Pathogen (WAC 220.77.020 20) requires notification to WDFW within one (1) working day;

3. Establishment of a pathogen containment area including containment and/or disinfection procedures to prevent the spread of the regulated fish pathogen on equipment and contaminated materials out of the areas affected by the pathogen;

4. Disposal procedures for dead fish; and

5. A list of sanitary mortality disposal sites including contact phone numbers.

Dead fish must be removed from the net pens on a schedule based on best rearing practices. In the event of increased fish mortalities caused by an endemic regulated pathogen, mortalities must be removed from the effected pens at an accelerated rate above the routine mortality removal schedule up to 6 times per week. In the event of a confirmed exotic finfish pathogen not known to occur in Washington State waters, the live fish populations in the pens which have been confirmed to be infected with the exotic pathogen must be sanitarily removed from the site in a timeframe that is agreed to by WDFW. In either situation, the site will be under quarantine pursuant to WAC 220-76-070 (2) until it is completely depopulated.