1. Procedure summary

The purpose of this SOP is to describe procedures for controlling the IABR pond TDS levels using the process water system.

1.1. Related Procedures

1.2. Procedure impacts and concerns

Safety	PPE (gloves, safety glasses)	<Additional notes>
Quality	The TDS of our ponds needs to be controlled. If it is not controlled the pond culture health could be compromised.	<Additional notes>
Delivery	Evpaporation water can be pumped via the process lift station or directly from the subnatant sump pump. Ensure that valves are in the correct position when pumping to the Evaporation area.	<Additional notes>
Environmental	The amount of water delivered to the evaporation pond needs to be monitored to maintain compliance.	<Additional notes>
Cost	If the evaporation area is not maintained, the area could be closed off and the process could be upset.	<Additional notes>
Compliance	The amount of water delivered to the evaporation pond needs to be monitored to maintain compliance.	<Additional notes>

1.3. Responsibilities and owners

Document Owner	Manage content and distribution	Timothy Langer
Process Owner	Responsible for content and process validation	Marcos Delgado
Site Manager	Responsible for implementation and conformance	Gil Jones

2. Process

2.1. Process description

This process is to control the IABR pond TDS levels using the process water system. <Additional notes>

2.2. Process diagram: Work Instruction

<Process flow diagram> <Additional notes>

<Additional diagrams, figures, and pictures to explain this procedure>

2.3. Process steps

1. If the TDS is below 15ppt
2. Add the difference in g/L to the total water system using the total volume of water in the ponds and the process water system.
3. This addition of salt is to be added to the HRP and recirculated.
1. If the TDS is above 15ppt
2. The range of the IABR sites TDS levels should be between 15 -30 ppt. As TDS increases over time a volume of water will need to be diluted.
3. Using the total volume in the ponds and the process water system (DFP and HRP) a volume determined by equation 1, a volume will need to be dumped from the process water to the evaporation ponds and then replaced by well water of a lower TDS value.

   Note: if TDS is decreasing do not dump excess process water Salt will be added to the process water.
4. The IABR site process engineer can provide the site volume from PI

Processbook.

5. **Equation 1 – Process dump volume = (TDS_{pond} * Site volume)/(15*site volume-TDS_{well})** . This will take water in the system to 15ppt.
6. Follow the Evaporation pond procedure to dump process water to the evaporation pond.
7. Follow the well water make up procedure to add well water equal to the total volume dumped.
8. Pond TDS will be managed through process water TDS reduction and continued harvest activities.

3. Required documents

3.1. Input documents

<Input document and storage instructions> <Input document number>

3.2. Output documents

<Output document and storage instructions> <Output document number>

4. Document control

4.1. Revision history

R0 – Initial Release – Timothy Langer	May 07, 2012
R1 – Updated errors – Timothy Langer	May 23, 2012

4.2. Document approval

<Name> <Approval date>

4.3. Document reviewers

<Name> <Last reviewed date>
<Name> <Last reviewed date>

5. Risk analysis

<Risk name> <Mitigation plan> <Owner> <RPN>