



Allen Harim Foods, LLC  
Harbeson Processing Plant  
18752 Harbeson Road  
Harbeson, DE 19951

**WATER ALLOCATION PERMIT RENEWAL APPLICATION**  
**ATTACHMENT 6**  
**WATER CONSERVATION PROGRAM**

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## **WATER CONSERVATION PLAN**

### **SUMMARY**

This Water Conservation Plan for the Allen Harim Foods, LLC (Allen Harim), Harbeson, DE facility provides for areas and volumes of water use to be documented and benchmarked, and for water savings strategies to be implemented based on the documented benchmarks and metrics. It also focuses on actions to be taken to ensure employee awareness regarding water conservation.

Allen Harim understands the environmental as well as the economic cost of water consumption and the benefits associated with using water more efficiently. Accordingly, Allen Harim seeks to identify and implement water-saving measures in order to meet our commitment to operating sustainably.

### **WATER USAGE**

Water is used for many purposes at the Harbeson poultry plant including, but not limited to, boiler feedwater, sanitary use, and poultry processes such as scalding, washing, chilling, and cleanup. This currently equates to roughly 6-gallons of water per bird and over 500,000,000 gallons of water per year. All water that is not consumed in process operations is treated and subsequently discharged to Beaverdam Creek.

The primary metric for evaluating water usage will be gallons per bird (gpb) processed. Allen Harim will evaluate this normalized water usage metric at a frequency of approximately once per month and will assess water usage for both regular operating days as well as startup/shutdown days. Additional metrics will be developed as needed.

### **WATER CONSERVATION AWARENESS**

There will be a cost savings associated with reducing the amount of water used in the processing operation, in terms of both the withdraw and treatment of the water and the subsequent treatment and discharge of it after use. The monetary savings associated with water conservation, however, are not the only benefits of reducing water consumption. It also fits within Allen Harim's social responsibility to lessen environmental and social impacts. These three pillars of sustainability – economic health, environmental stewardship, and social equity – guide Allen Harim's Water Management

Program. A critical element of this program is water management awareness, which is designed to increase visibility of water usage and raise awareness of the need to conserve water amongst facility personnel.

## **WATER MANAGEMENT PROGRAM**

### **Steps Involved in the Water Management Program**

1. Establishment of the Water Management Team
  - a. The team is responsible for the distribution of water usage and water conservation information.
  - b. The team currently consists of the following positions:
    - i. Senior Director of Operations
    - ii. Director of Operations / Plant Manager
    - iii. Environmental Manager
    - iv. Maintenance Manager
    - v. Assistant Maintenance Manager
    - vi. Shift Managers
2. Commencement of Water Conservation Awareness Training
  - a. E.g. Signage encouraging water conservation principals throughout the facility, notation of water conservation projects in the Allen Harim newsletter, and discussion of water conservation tasks at staff meetings (e.g. leak repair).
3. Publication of Program Results
  - a. E.g. displaying the water usage metric (gpb) on a Visual Performance Board.
4. Perform Annual Review of Water Management Program Results
  - a. To be performed by the Water Management Team.

## **INITIATIVES TO ASSIST IN REDUCING WATER CONSUMPTION**

- Record water well withdraws and total water withdraw on a daily basis;
- Periodically calibrate flow meters and measure bi-directional flow where feasible;
- Review, approximately monthly, the water usage metric at times of startup and shutdown and also on regular operating days;
- Annually conduct water conservation awareness training with front line supervisors;
- Regularly, at least monthly, inspect pipelines and pumps to identify and repair any leaks in the water transmission system
- Use nozzles on all water sprays;
- Reduce the use of high-pressure hoses and sprays where feasible;
- Use dry cleanup methods where feasible in lieu of water washdown;

- Don't let water run continuously unless necessary (e.g. shutdown water during lunch break or periods of inactivity);
- Close water valves on equipment that will be non-operational for a specified period;
- Prioritize water reuse and water reuse systems where feasible, including:
  - Lock-out potable water make-out to operational processes in which the supply and quality of reuse water is adequate (e.g. scalders);
  - Decrease the downtime of the water reuse system, including weekend shifts;
- Tune automated subsystem controls to reduce water usage, including:
  - Replace pneumatic valves with float control valves for level control;
  - Increase total water contact time by increasing water residence time where applicable (e.g. Chiller);
- Update potable water system controls to more precisely trim at the pressure setpoint; and,
- Consider other capital improvements that will reduce water consumption.



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**WATER ALLOCATION PERMIT RENEWAL APPLICATION**  
**ATTACHMENT 7**  
**DROUGHT EMERGENCY PLAN**



Allen Harim Foods, LLC  
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## **DROUGHT EMERGENCY PLAN**

### **PURPOSE**

To conserve and allocate water during times of drought or water shortage.

### **SUMMARY**

This drought emergency plan for Allen Harim Foods, LLC, Harbeson, DE provides for the actions to be taken during times of drought in order to reduce water consumption. This plan as well as the measures undertaken by the active Water Management Team at Allen Harim serves to ensure that water conservation is actively addressed at all times including times of drought.

### **PRIORITY USES**

If a drought emergency is declared by a regulatory agency, Allen Harim will evaluate production levels as well as evaluate water use throughout the plant to determine where reductions are both feasible and appropriate. Uses of water will be identified including, but not limited to boiler feedwater, poultry processing, processing area sanitation, and wastewater treatment. The identified uses will be prioritized to ensure that water withdrawals are reduced wherever appropriate and feasible. If the need to reduce water withdraws arises during a drought emergency, the following is a prioritized, sequential list of water uses that are to be reduced or suspended:

1. Exterior/grounds sanitation and irrigation;
2. Drinking water supply (imported bottled water to be used in lieu of water fountains);
3. Wastewater treatment (provided that sufficient capacity is available to temporarily store wastewater);
4. Poultry process water, including sanitation, (reduce production levels or if, necessary, suspend production); and,
5. Boiler Feedwater (only during a plant shutdown when temperatures are at least 8 degrees F above freezing).

If a Drought Emergency is declared, Allen Harim will review the water reuse efficiency and, when feasible, seek to optimize the rate of water reuse.

## **WATER USE RESTRICTION SCHEDULES**

Water use restrictions will be instituted if possible in order to minimize Allen Harim's use of water during times of drought.

## **IMPLEMENTATION PROCEDURES**

If a drought emergency is declared by a regulatory agency, the Water Management Team will call a meeting within 3 calendar days to evaluate the water usage and determine priority uses. Recommendations of the Water Management Team will be implemented by appropriate department personnel. The Water Management Team will meet on a weekly basis as long as a drought emergency continues to review action status and determine if additional steps are appropriate.

## **ALTERNATE SOURCES OF WATER**

No alternate sources of water have been identified for this plant.