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| **Farm Name:**  **F-4.1 Water System Risk Assessment Log Signature/date of Person writing plan: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­\_ Signature/date of Supervisor review: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | Effective Date: \_\_\_\_\_\_\_  Document #: \_\_\_\_\_\_\_  Revision #: \_\_\_\_\_\_\_  Revision Date: \_\_\_\_\_\_\_ |

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| **Water System Risk Assessment. We perform a *Water Systems Risk Assessment***   * Seasonally * And any time there is a change made to the system or a situation occurs that could introduce an opportunity to contaminate the system   The risk assessment addresses potential physical, chemical, and biological hazards and hazard control procedures for the water distribution system. | | | | | | | |
| **If your answer to a question indicates a risk of a food safety hazard, then further understanding, conducting a risk assessment and/or Preventive or Corrective Action(s) are needed to minimize possible contamination.** | | | | | | | |
| **Area of Potential Risk with Water System and Use** | **Yes** | **No** | **NA** | **What is the potential risk identified?** | **Likelihood**  **(Circle One)** | **What Preventive/Corrective Action(s) will you use to minimize the risk?** | **Date/Initials** |
| Is the source of water used for irrigation clearly identified? |  |  |  |  | Low  Medium  High |  |  |
| Is the potable water source clearly identified with laboratory testing to support no detectable levels of generic *E.coli*? |  |  |  |  | Low  Medium  High |  |  |
| Are water distribution systems monitored and maintained and currently in working order? |  |  |  |  | Low  Medium  High |  |  |
| Is the method of water used in irrigation and fertigation identified? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used in the application of plant protection products (PPPs) considered? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used in any other pre-harvest treatment such as sun damage mitigation, frost protection and misting considered? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used during harvest considered? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used during the transportation of the product being considered? (e.g., water transfer systems, dump tanks) |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used during hydro-cooling, sorting or washing of the product considered? |  |  |  |  | Low  Medium  High |  |  |
| Is a sanitizer added to the wash water? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of ice or water used in production of ice used to top produce considered? |  |  |  |  | Low  Medium  High |  |  |
| Is the quality of water used in facility and equipment cleaning procedures considered? |  |  |  |  | Low  Medium  High |  |  |
| Are human and animal waste water systems separate from the irrigation water system? |  |  |  |  | Low  Medium  High |  |  |
| In the case where a gas engine is used to pump water, a drip plan is used to prevent irrigation water contamination |  |  |  |  | Low  Medium  High |  |  |
| **Municipal Water Only:**  Most recent water test results requested from municipality and on file? |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:** Uncontrolled wildlife access |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:**  Surface run-off during times of heavy rain or melting snow |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:**  Irrigation water is applied by overhead coming into direct contact with the edible portions of the crop |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:**  Sanitary condition of the irrigation water holding/storage tank is addressed |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:** In the case where a gas engine is used to pump water, a drip plan is used to prevent irrigation water contamination |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:**  Sanitary condition of the irrigation hoses is addressed |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:** Acceptable irrigation water test results on file? (</=235 MPN - Direct Contact with Edible Portions of Crop; </= 576 MPN – No Direct Contact) |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:** At least three (3) acceptable water test results/year on file if you are renewing your GAP certification (yearly), for previous years? |  |  |  |  | Low  Medium  High |  |  |
| **Surface Water Only:** Are historical surface water test results on file? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** Well is in good order with no cracks or damage? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** Is there potential for agricultural runoff based on well location? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** If the septic system located close to the well? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** Are procedures in place to ensure sanitary conditions of the well water holding/storage tank are addressed? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** Is a backflow prevention device installed and properly functioning? |  |  |  |  | Low  Medium  High |  |  |
| **Well Water Only:** Well is in good order with no cracks or damage |  |  |  |  | Low  Medium  High |  |  |
| **PERTAINS TO ALL WATER SOURCES:** | | | | | | | | | |
| Are there any potential physical contamination concerns not mentioned above? | |  |  |  |  | Low  Medium  High |  |  | |
| Are there any potential chemical contamination concerns not mentioned above? | |  |  |  |  | Low  Medium  High |  |  | |
| Are there any potential biological contamination concerns not mentioned above? | |  |  |  |  | Low  Medium  High |  |  | |

Source: Carolina Farm Stewardship Association: Fundamentals of On-Farm Food Safety

https://www.carolinafarmstewards.org/wp-content/uploads/2019/07/CFSA\_2019-FoodSafetyManual\_Final.pdf