

# Farm Irrigation System Performance Checklist

### **System Overview & Pre-Operation**

Initial assessment and pre-operational checks before irrigation begins.

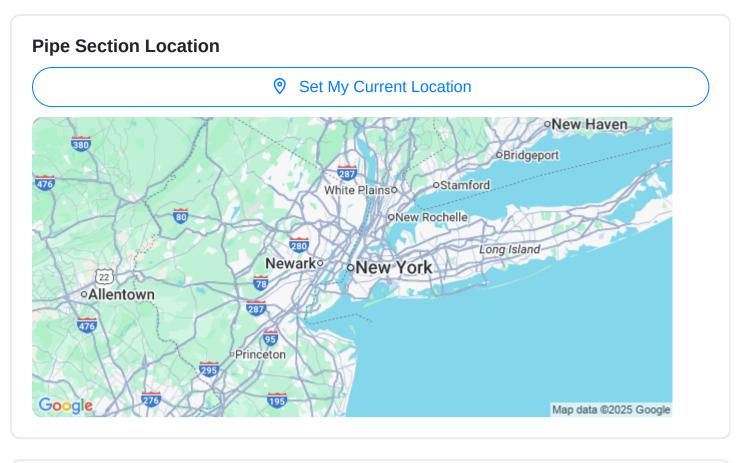
| Date of Inspection                      |  |
|---|--|
| Enter date                              |  |
|   |  |
| Time of Inspection                      |  |
| Irrigation System Type                  |  |
| ☐ Drip                                  |  |
| Sprinkler                               |  |
| Pivot                                   |  |
| Flood                                   |  |
| Area Under Irrigation (Acres)           |  |
| Enter a number                          |  |
| System Pressure (PSI) - Initial Reading |  |
| Enter a number                          |  |
| Litter a number                         |  |

| Write something   |  |
|---|--|
|   |  |
|   |  |
| System Status Before Start                                  |  |
| Operational   |  |
| Needs Repair  |  |
| Out of Service  |  |
|   |  |
| Pump Station Evaluation                                     |  |
| nspect and monitor the pump system for efficient operation. |  |
|   |  |
| Pump Inlet Pressure (PSI)                                   |  |
| Enter a number  |  |
|   |  |
|   |  |
| Pump Discharge Pressure (PSI)                               |  |
| Pump Discharge Pressure (PSI)                               |  |
| Pump Discharge Pressure (PSI)  Enter a number               |  |
|   |  |
|   |  |
| Enter a number  |  |
| Enter a number  Pump Motor Amperage                         |  |
| Pump Motor Amperage  Enter a number                         |  |
| Enter a number  Pump Motor Amperage                         |  |

| Pump Noise Level        |  |
|-------------------------|--|
| Normal                  |  |
| Slightly Elevated       |  |
| Excessive               |  |
|                         |  |
| Notes on Pump Operation |  |
| Write something         |  |
|                         |  |
|                         |  |
| Date of Inspection      |  |
| Enter date              |  |
|                         |  |
|                         |  |
| Time of Inspection      |  |

# **Pipe and Fittings Inspection**

Check pipes, joints, and fittings for leaks and damage.



# Pipe Diameter (inches) Enter a number... Pipe Material PVC HDPE Galvanized Steel Other

| Fitting Type |  |
|--------------|--|
| Elbow        |  |
| Tee          |  |
| Coupling     |  |
| Reducer      |  |
| □ Valve      |  |
|              |  |

| Description of Damage (if any)  Write something  Condition  Excellent Good  |  |
|---|--|
| Condition  Excellent  |  |
| Excellent   |  |
|   |  |
| Good  |  |
|   |  |
| ☐ Fair  |  |
| Poor  |  |
| Photo of Pipe/Fitting (if damaged)  Description:  Upload File  Prinkler/Emitter Performance  aluate the uniformity and effectiveness of sprinklers or emitters. |  |
| Sprinkler Throw Distance (feet)   |  |
| Enter a number  |  |
| Emitter Flow Rate (gallons/hour)  |  |

| Sprinkler Pattern Uniformity (Visual)    Excellent   Good   Fair   Poor                                |
|--|
| Pressure at Sprinkler Head (PSI)   |
| Enter a number   |
| Emitter Clogging?  Yes  No Possible  |
| Notes on Sprinkler/Emitter Performance   |
| Write something  |
| Water Source Quality Assess the quality of the water source for potential issues affecting irrigation. |
| pH Level   |
| Enter a number   |

| Electrical Conductivity (EC) |  |
|------------------------------|--|
| Enter a number               |  |
|                              |  |
| Nitrate Concentration (ppm)  |  |
| Enter a number               |  |
| Salinity (dS/m)              |  |
| Enter a number               |  |
| Water Appearance             |  |
| Clear                        |  |
| Slightly Cloudy              |  |
| ☐ Cloudy ☐ Murky             |  |
|                              |  |
| Additional Observations      |  |
| Write something              |  |
|                              |  |
|                              |  |
| Sampling Date                |  |
| Enter date                   |  |

## **Pressure and Flow Measurement**

Verify pressure and flow rates at various points in the system.

| System Pressure (PSI)               |  |
|-------------------------------------|--|
| Enter a number                      |  |
|                                     |  |
| Flow Rate (GPM)                     |  |
| Enter a number                      |  |
| Elevation Head (Feet)               |  |
| Enter a number                      |  |
| Pressure at Sprinkler Head 1 (PSI)  |  |
| Enter a number                      |  |
| Flow Rate at Sprinkler Head 1 (GPM) |  |
| Enter a number                      |  |
| Measurement Unit (Pressure)         |  |
| PSI                                 |  |
| ☐ kPa<br>☐ Bar                      |  |
|                                     |  |

| Measurement Unit (Flow)  |         |
|--|---------|
| ☐ GPM  |         |
| ☐ LPM  |         |
| ACH  |         |
|  |         |
|  |         |
| Post-Irrigation Assessment   |         |
| bserve crop response and identify areas for improvement after irrig          | ation.  |
| Average Soil Moisture Reading (%),   |         |
| Enter a number   |         |
|  |         |
|  |         |
| Crop Appearance - Overall Health   |         |
| Excellent  |         |
| Good   |         |
| Fair   |         |
| Poor   |         |
|  |         |
| Detailed Observations on Crop Health (e.g., signs of stress, n deficiencies) | utrient |
| Write something  |         |
|  |         |
|  |         |
|  |         |
| Irrigation Run Time (minutes)  |         |
| Enter a number   |         |
|  |         |

| Water Penetration - Evenness                         |   |
|--|---|
| Excellent  |   |
| Good   |   |
| ☐ Fair Poor  |   |
|  |   |
|  |   |
| Date of Assessment                                   |   |
| Enter date   |   |
|  |   |
|  |   |
| Maintenance & Repair Log                             |   |
| Record any maintenance performed and repairs needed. |   |
|  |   |
| Date of Maintenance/Repair                           |   |
| Enter date   |   |
|  |   |
|  |   |
| Time of Maintenance/Repair                           |   |
|  |   |
| Description of Issue/Maintenance Performed           |   |
| Write something                                      | ) |
| Write something                                      |   |
|  | ) |
|  |   |
| Parts Used (Quantity)                                |   |
| Enter a number                                       | ) |
|  |   |
|  |   |

| Parts Used (Description) |  |
|--------------------------|--|
| Write something          |  |
|                          |  |
| Labor Hours              |  |
| Enter a number           |  |
|                          |  |
| Technician Signature     |  |
|                          |  |
| Issue Resolved?          |  |
| Yes                      |  |
| □ No                     |  |