PROTOCOL C1 SAMPLE WATER ASSESSMENT REPORT

NAME OF GREENHOUSE	Ontario Farms Inc.	**TEST DATE**	6/1/2022
ADDRESS	255 Ontario Road, Town ON N8H 3E4		
QUALIFIED PERSON (QP)	Mary Smith	**QP SIGNATURE**	
QP CONTACT INFORMATION	Mary@smith.com		
TESTING METHOD	Dye test		

THE FOLLOWING MUST BE COMPLIANT TO PASS:

The following system(s) should be free of cross-connections or leaks:

SYSTEM	PASS/ FAIL OR VULNERABLE	NOTES
Underground Piping	Fail	Inlet C and Inlet E
Overflow in sump	Fail	Connected directly to pond

The following areas should be free of floor drains which lead to the stormwater management pond:

AREA	PASS/FAIL/ POTENTIAL DEFICIENCY	NOTES
Irrigation Room	Fail	Pits connected to stormwater management system
Pesticide Mixing Area	Vulnerable	Drain capped at time of test

Per the test(s) conducted on DATE, NAME OF GREENHOUSE does not satisfy the requirements of Protocol C1 for Category 1 Facilities.

Listed deficiencies and vulnerabilities must be fixed to receive a pass.

DEFICIENCIES

The following deficiencies must be repaired and inspected by the QP who performed the test(s) in order to receive a pass. Photographs of the deficiency are included in Appendix A.

Item	Description	Inspection Date	QP Signature
1.	Underground piping connected to storm pond via Inlet C and Inlet E must be disconnected from stormwater management system		
1.	Overflow in sump must be disconnected from stormwater pond		
2.	Irrigation Room pits must be permanently disconnected from stormwater management system		

VULNERABILITIES/ VULNERABLE AREAS

The following vulnerabilities must be repaired and inspected by the QP who performed the test(s) in order to receive a pass. Photographs of the vulnerable areas are included in Appendix A.

Item	Description	Inspection Date	QP Signature
1.	Capped drain in Pesticide Mixing Area must be removed, redirected to holding tank or filled with concrete.		

APPENDIX A

ITEM	DEFICIENCY PHOTOGRAPHS	
1.		
NOTES:	The above photographs show outlet pipe leading to the stormwater management system and pit containing the outlet.	

ITEM	VULNERABLE AREAS PHOTOGRAPHS
1.	
NOTES:	The above photograph shows the capped outlet within the floor drain.

GROWER INFORMATION SUMMARY

Greenhouse Owner Information		
Owner Name James Smith	Phone 519.555.5555	Email owner@ontariofarms.ca
Address 222 Ontario Road, Town ON N8H 3E4		
Greenhouse Operation Information		
Greenhouse Operating Name Ontario Farms Inc.		
Physical Address 255 Ontario Road, Town ON N8H 3E4		
Primary Contact Phillip Ross	Phone 519.555.6666	Email grower@ontariofarms.ca
Municipality Townville		
Types of crops grown/ product description Tomatoes, cucumbers and peppers		

INFRASTRUCTURE AND VISUAL INSPECTION SUMMARY

Item	Description				Details and Notes
Interior Inspection					
1	Describe incoming water source. Describe treatment steps, if any.				Municipal water. No additional treatment.
2	Describe the chemigation system, record type(s) of irrigation system(s) used, irrigation system layout, area covered by each and recirculation system. Obtain as-built and utility drawings for each greenhouse to be tested. Locate the chemigation system drain furthest from the main collection point to ensure entire network is being tested.				Trough and drip irrigation used throughout. Connected to recirculation system for Greenhouse 1. As-built and utility drawings provided by grower. Located chemigation system drain farthest from main collection point.
Example	a)	Flood Floors	Area:	ha	
	b)	Trough		3.5	
	c)	Trough		3.5	
	d)	Trough		3.5	
	e)	Trough		3.5	
	f)				
3	Describe additives to irrigation system (ie. Water, nutrients, pesticides, etc.				

Item	Description	Details and Notes
4	Is feedwater used indefinitely? Is storage adequate to contain the excess chemigation water collected or is disposal required? Describe disposal methods.	Feedwater used indefinitely. Storage adequate. Disposal via sewer, if required.
5	Describe pesticide application methods, i.e. foliar, if different from irrigation system.	N/A
6	Describe subsurface drainage, if any.	N/A
7	Describe production cycle(s) (ie. year-round) and when zones may be empty.	Year-round. Zones may be empty in January.

INFRASTRUCTURE AND VISUAL INSPECTION SUMMARY

Item	Description	Details and Notes
8	Examine each area and room of each greenhouse, particularly those areas where pesticides are stored and mixed including sprayer wash areas and irrigation rooms. Look for drains, pipes, holes in the floor, cracks or gaps in floor, overall maintenance level and care of irrigation system. Determine drain discharge location, if able. Note location (or evidence) of spills. Be aware of skids or objects covering floor drains. Document presence of floor drains in Floor Drain Log. Utilize same Floor Drain Log during physical testing. A site map as required in A1 and E1 of the PAS National Auditable Standards may aid in this process.	Cracks noted in floor of sprayer wash area. Overall maintenance level: good Care of irrigation system: well maintained, no evidence of leaks or spills. Drain locations recorded on Floor Drain Log.
9	Describe any major repairs to the chemigation supply and return system made since the last water assessment.	None.

INFRASTRUCTURE AND VISUAL INSPECTION SUMMARY

Item	Description	Details and Notes
Exterior Examination		
1	Describe key exterior features such ditches, ponds, wells. If water level is high, return to inspect when water level is lower.	Stormwater management pond onsite. Water level low. Outlet pipes and gabion stone visible.
2	Describe visible pipes and identify origin, if able.	No pipes noted on exterior of greenhouse
3	Describe evidence of erosion at pipe outlet, if any.	N/A
4	Describe location and volume of septic beds and septic tank.	Septic bed located in SW corner of property. Volume =

Item	Description	Details and Notes
5	Review stormwater management plan as-built drawings. Identify all manholes and catchbasins that receive stormwater from the subject greenhouse.	Reviewed stormwater management as-built drawings. Noted location of all manholes and CBs.
6	Determine if the stormwater collection system(s) discharge to a stormwater management pond or directly to a receiving watercourse.	Stormwater management collection system discharges directly to existing pond. Pond outlets to municipal drain.
7	Based on above information, is the subject system a closed-loop system?	Y/ N Yes

DYE TESTING LOG

DATE: 2022-01-18

FARM NAME AND TEST LOCATION: Ontario Farms - GH1

LOC #	LOCATION NAME OR DESCR	COLOUR	AMOUNT OF DYE	TIME DYE IN	TIME FULL SYSTEM	TIME DYE OUT	DYE IN STORM SEWER (Y/N)	DYE IN POND (Y/N)	NOTES
1	INLET A	BLUE	30mL	9:00am	9:30am	9:45am	N	N	
2	INLET B	RED	60mL	10:00am	10:45am	11:00am	N	N	
3	INLET C	BLUE	30mL	11:15am	11:45am	12:15pm	Y	Y	BLUE DYE AT POND INLET
4	INLET D	RED	90mL	12:30pm	1:30pm	1:45pm	N	N	
5	INLET E	BLUE	120mL	2:00pm	3:15pm	3:30pm	Y	Y	DYE FOUND AFTER DYE OUT
6									
7									
8									
9									
10									
11									
12									

TEST PERFORMED BY: _____ _____

PRINT NAME **SIGNATURE**

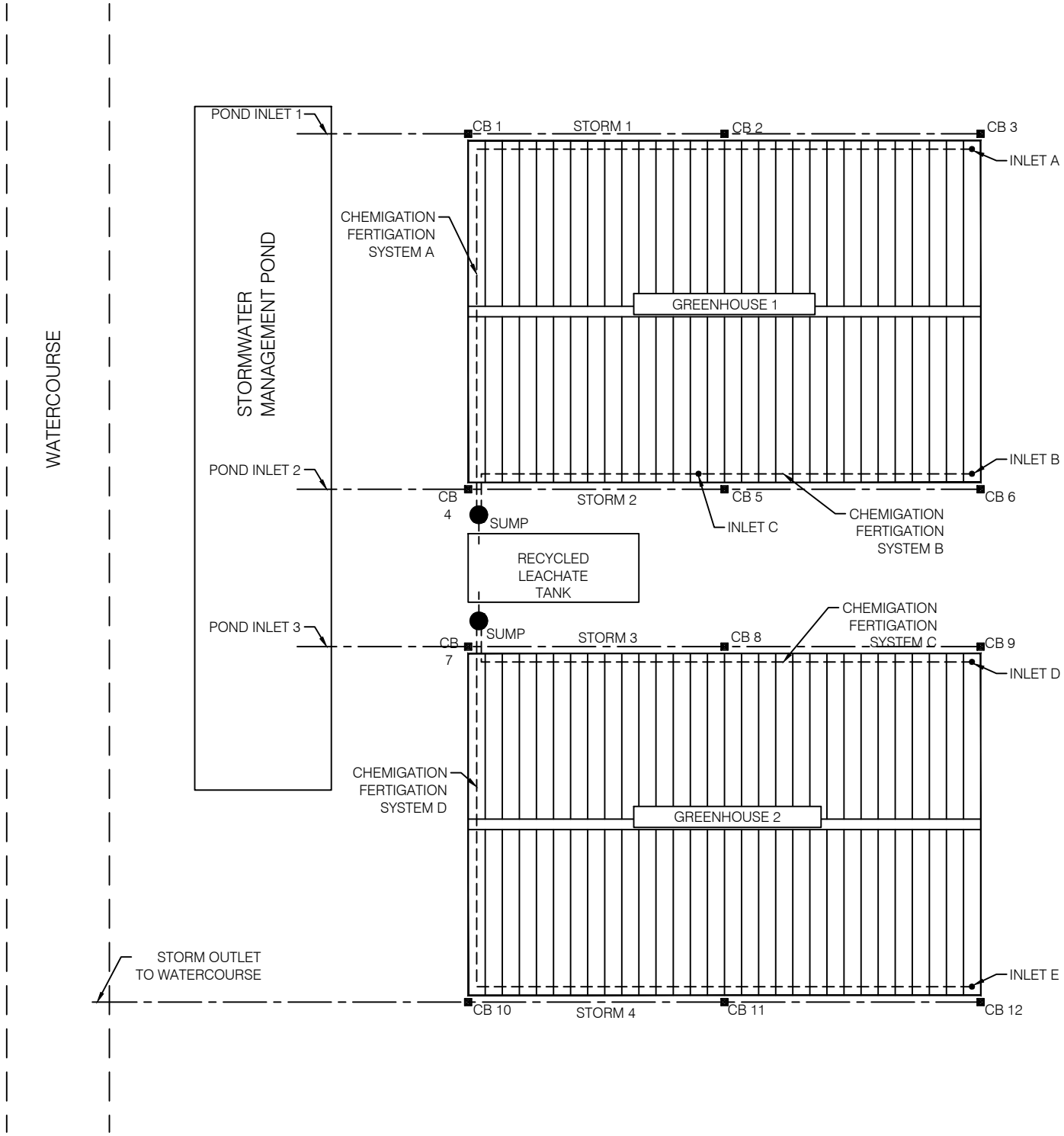
FLOOR DRAIN LOG - DYE TESTING

DATE: 2022-01-18 **FARM NAME AND TEST LOCATION:** Ontario Farms - GH1

AREA DESCRIPTION	FLOOR DRAIN (Y/N)	PHOTO (Y/N)	DRAIN TESTED (Y/N)	TEST RESULTS (IF APPLICABLE)	NOTES
GROWING AREA	N	N/A	N/A		
IRRIGATION ROOM	Y	Y	Y	DYE FOUND IN CB	OUTLET LEADS TO CB NE CORNER IRRIGATION ROOM
PESTICIDE STORAGE AREA	N	Y	N/A		VENTILATION & CATCHMENT BIN PRESENT
PESTICIDE MIXING AREA	Y	Y	Y	NO DYE IN SWM	DRAIN PUMPED TO TANK IN IRRIGATION ROOM
SPRAYER STORAGE AREA	N	Y	N/A		IN GROWING AREA
SPRAYER WASHING AREA	N	Y	N/A		IN GROWING AREA
OVERFLOW IN SUMP	Y	Y	Y	DYE AT POND INLET	OVERFLOW DIRECTLY CONNECTED TO POND
ANY OTHER OVERFLOWS	N	N/A	N/A		

TEST PERFORMED BY: _____ _____

PRINT NAME **SIGNATURE**


WATERCOURSE
STORMWATER MANAGEMENT POND
POND INLET 1
POND INLET 2
POND INLET 3
CB 1
STORM 1
CB 2
CB 3
INLET A
CHEMIGATION FERTIGATION SYSTEM A
GREENHOUSE 1
INLET B
CB 4
STORM 2
CB 5
CB 6
SUMP
INLET C
CHEMIGATION FERTIGATION SYSTEM B
RECYCLED LEACHATE TANK
SUMP
CB 7
STORM 3
CB 8
CHEMIGATION FERTIGATION SYSTEM C
CB 9
INLET D
CHEMIGATION FERTIGATION SYSTEM D
GREENHOUSE 2
STORM OUTLET TO WATERCOURSE
INLET E
CB 10
STORM 4
CB 11
CB 12