

WATER CONSERVATION AND DROUGHT
EMERGENCY MANAGEMENT PLAN REPORT
FOR GOLF COURSES/IRRIGATION

PERMITTEE: Atlantic Golf Management PROGRAM INTEREST NO.: 4035 PS

CONTACT NAME: John Boyer DATE: 11/21/22

ADDRESS: 4181 Atlantic Ave, Farmingdale, NJ 07727

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Submit to: Mail Code 401-04Q
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420

See your Water Allocation Permit for your submittal schedule

NOTE: You must read and complete all sections of the worksheet. Your Water Allocation Permit requires water conservation and water management activities that you may not usually consider in this context but no section may be omitted.

Please discard your file copies of the previous worksheets and/or delete or update computerized forms. Your report must be submitted on an exact replica of this worksheet, either a photocopy or a computerized version, with the original kept on file for future reference. An incomplete worksheet will be returned to you. If there is not enough space provided for your information, additional pages should be used.

I. WATER CONSERVATION COMPONENTS

A. WATER SYSTEM

1. Allocation: 9.63 mgm, 1000 gpm, 33 mgy
(entering irrigation system)
2. Sources of water:
number of wells 0
number of surface intakes 1
number of irrigation system intakes 1
total number of on site ponds 1
bulk purchases N/A mgd, _____ mgm, _____ mgy

3. Metering: (circle one)
 well Yes No NA
 stream Yes No NA
 pond/lake Yes No NA
 head of irrigation system Yes No NA
 bulk purchase Yes No NA
4. Date of last meter calibration: River 4/6/22 Pond 8/26/22
5. System Storage: All on site ponds 9 mg
 Irrigation system storage _____ mg
6. Pumping Schedule: 8-10 hours/day, 9pm to 6am
7. Interconnections: No. of _____, size _____" NA
8. Monitoring wells (if any): list well permit numbers, local ID and depths
 (attach separate sheets)
 NOTE: DO NOT INCLUDE THE PRODUCTION WELLS LISTED ABOVE
9. Source of potable supply (public water supplier, or well name/permit numbers, if self-supplied) Wall Township

B. ANALYSIS OF WATER USE

1. Demand: Report demand from the most recent year for which you have complete data as the base year; identify the years the data refers to.

USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Base Year 20 <u>21</u>	<u>2.907</u>	<u>12.609</u>
Previous Year 20 <u>20</u>	<u>2.419</u>	<u>8.835</u>
Peak Year (of last 5) 20 <u>21</u>	<u>2.907</u>	<u>12.609</u>
Peak Year (of last 10) 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>

PROJECTED USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Next Year 20 <u>22</u>	<u>9.63</u>	<u>33</u>
5 Year 20 <u>26</u>	<u>9.63</u>	<u>33</u>

2. Actual Use:
 lake/pond level maintenance 0 %
 irrigation 100 %
 potable 0 %
 other (explain) 0 %

3. Attach water balance.
Provide a simple diagram which indicates source, areas of use, amounts used in each, etc.

C. WATER CONSERVATION PRACTICES

1. Irrigation System:

- a. number, type, and capacity of nozzles 372, Toro, See Attached
- b. number of heads in use at one time 12-20.
- c. average duration of irrigation cycle 5-15 (min.) (hr.)

2. Irrigation requirements:

Area	# Acres	Acres Irrigated	Grass Type	%Low Water Use Grass
Tees	<u>3.5</u>	<u>3.5</u>	<u>Rye/Blue</u>	<u>0</u>
Greens	<u>2.75</u>	<u>2.75</u>	<u>Bent/Poa</u>	<u>50</u>
Fairways	<u>28</u>	<u>28</u>	<u>Rye/Blue Fescue</u>	<u>30</u>
Approaches	<u>.75</u>	<u>.75</u>	<u>Rye, Blue, Fescue</u>	<u>30</u>
Rough	<u>30</u>	<u>30</u>	<u>Rye, Blue, Fescue</u>	<u>30</u>
Other _____	<u>125</u>	<u>0</u>	<u>Rye, Blue, Fescue, Woods</u>	<u>-</u>
Total	<u>190</u>	<u>65</u>		<u>-</u>

3. Moisture sensing devices type N/A
location _____

4. Are evapotranspiration rates used to calculate irrigation water needs? Please provide details.

No

5. Is any recycled/reused or treated wastewater used? If not, please indicate why not and provide details.

No

D. WORKER EDUCATION/AWARENESS

List methods employed to educate workers on methods to save water during day to day operations:

See Attached

Note: If more space is required for explanation please attach additional sheets as needed.

II. DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Note: This section should cover the procedures you follow in periods of low rainfall in your area or when local officials impose restrictions. The restrictions that apply when a drought emergency is declared by the Governor are not to be listed here.

A. ALTERNATE SUPPLIES

1. Storage, backup supplies, equipment and interconnections on standby status:

N/A

B. ACTION PROCEDURES

1. Order in which irrigation of different areas is curtailed or stopped.

See Attached

2. Other methods of dealing with an interruption of your supply.

IRRIGATION

WORKER EDUCATION/AWARENESS

While mowing and daily inspection of course looking for any wet spots out of the ordinary. Pro shop rangers also keep an eye out for us. If a leak is present we isolate area with gate valves and repair as necessary. If an area is getting too much water we can cut back the time on our computer program and or turn the head itself off. Also monitoring the weather through the weather channel.

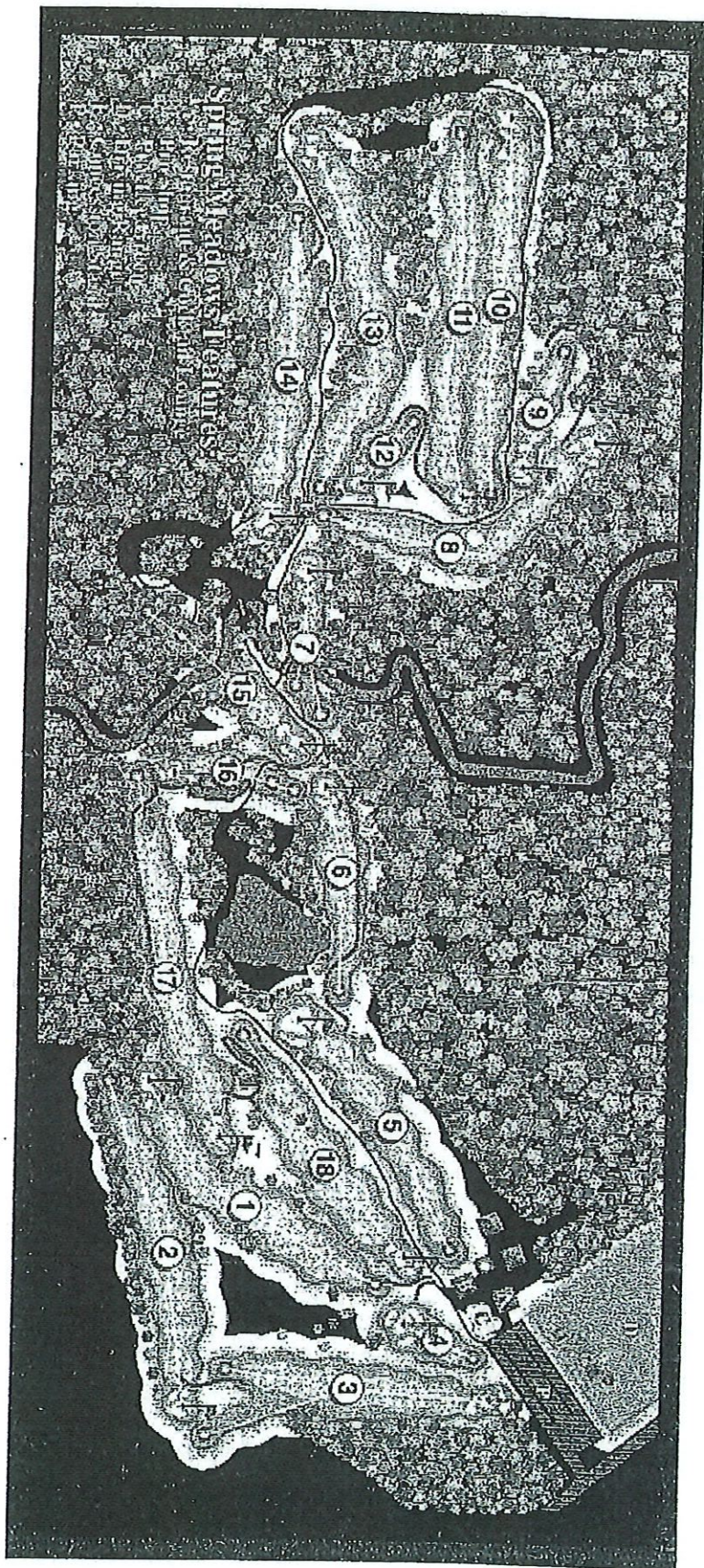
DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Section B. -- Action procedures

1. Action we may take before emergency is declared.

Example.

1. Cut back on the amount of irrigation on certain areas.
 2. More hand watering.
 3. Monitor water use on a daily basis.
-
2. A. Raise the height of cut.
B. Reduce the number of mowing per week.
C. Determine areas most critical to play.



Large Turf

SPRINKLERS

650/670 Series Sprinklers

(650 Series) 56-86 Radius (17-26m)
(670 Series) 70-102 Radius (21-31m)

Features

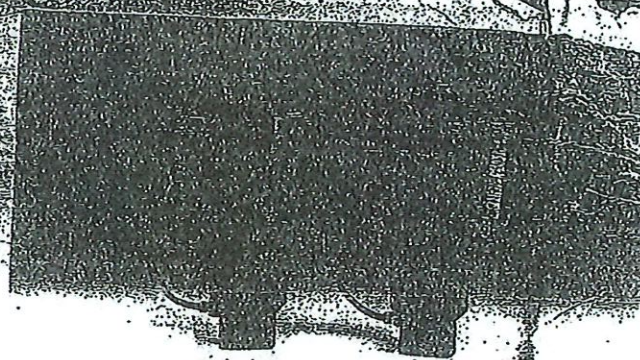
- 3 standard pressure regulation settings available to ensure consistently accurate nozzle performance regardless of elevation
- 65 PSI (4.5 Bar) and 80 PSI (5.5 Bar) (electric) and 6.9 Bar (electric)
- 3 body styles/activation types available to fit every application:
 - Electric V.I.H. Normally Open Hydraulic V.I.H. and Check-O-Matic
 - Manual control at the sprinkler: On-Off-Auto (electric and normally closed)
 - Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure electric
- Time-proven gear-drive design
- All internal components serviceable from the top of the sprinkler
- Large selection of nozzles available
- Durable engineering plastic and stainless-steel construction

650 Specifications

- Radius: 56-86" (17-26m)
- Flow rate: 13.0-43.7 GPM (49-165 LPM)
- 1 1/2" (40mm) female-threaded inlet
- Arc selections:
 - 60° x 120° full-circle, two-speed
 - 180° x 180° full-circle, two-speed (two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit options:
 - Part No. 650-00 (flat flange)
 - Part No. 650-01 (round flange)
- Dimensions:
 - Height: 11" (280mm)

670 Specifications

- Radius: 70-102" (21-31m)
- Flow rate: 31.9-66.8 GPM (121-253 LPM)



650 Series
Electric
Valve-In-Head

670 Series
Check-O-Matic

- 1 1/2" (40mm) female-threaded inlet
- Full-circle

- Rubber cover kit option:
 - Part No. 670-00 (flat flange)
 - Part No. 670-01 (round flange)
- Dimensions:
 - Height: 11" (280mm)

Base Pressure	Nozzle Set 70		Nozzle Set 71		Nozzle Set 72		Nozzle Set 73		Nozzle Set 74	
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	70	31.9	70	34.9	71	38.7	72	41.2	73	44.4
55	73	33.6	73	36.9	74	40.2	75	43.0	76	45.7
60	76	35.5	78	39.5	79	43.7	80	47.8	81	50.3
65	78	36.9	80	41.1	83	46.3	84	51.0	86	53.5
70	80	38.4	82	42.7	85	47.9	86	52.6	89	58.2
75	82	39.7	83	44.1	87	49.4	89	54.5	91	58.9
80	84	41.2	86	45.6	89	51.0	92	57.9	96	59.6
85	86	42.5	88	47.1	91	52.0	94	57.9	96	61.4
90	88	43.8	87	48.5	92	54.5	95	59.8	99	63.4
95	90	45.0	89	49.8	94	55.5	97	61.3	100	65.0
100	92	46.2	90	51.3	95	57.3	98	62.8	102	66.8

Rad = Feet GPM = Gallons per minute

Pressure regulation
Nozzles not recommended at this pressure
Sprinkler radius of throw per ASAE standard S398.1

Base Pressure	Nozzle Set 51	Nozzle Set 55	Nozzle Set 58	Nozzle Set 61	Nozzle Set 64	Nozzle Set 67	Nozzle Set 70	Nozzle Set 73	Nozzle Set 76	Nozzle Set 79
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	56	13.0	61	16.4	64	17.8	65	22.4	66	24.7
55	56	13.6	62	17.2	65	18.7	67	23.6	68	25.9
60	57	14.2	62	18.0	67	19.6	70	25.1	73	28.3
65	57	14.8	63	18.7	68	20.4	71	26.1	73	28.1
70	58	15.4	64	19.4	69	21.1	72	27.0	75	29.7
75	58	15.9	64	20.0	70	21.9	74	27.9	76	30.5
80	59	16.4	65	20.7	71	22.6	75	28.8	78	31.7
85	60	17.0	66	21.3	72	23.6	76	29.6	79	32.6
90	60	17.5	68	21.9	74	24.5	77	30.6	81	34.5
95	61	18.1	69	22.5	75	25.5	78	31.3	81	34.1
100	61	18.6	70	23.1	76	26.4	79	32.1	82	35.3

Rad = Feet GPM = Gallons per minute

Pressure regulation
Nozzles not recommended at this pressure
Sprinkler radius of throw per ASAE standard S398.1

Specifying Information

6XX XX XX N			
Body	Thread	Valve Type	Nozzle
650	0-NPT 5-BSP	1-Normally Open Hydraulic 2-Check-O-Matic 6-Electric	650 54 55 56 57 58 59
670	4-Full-Circle		670 70 71 72 73 74

For Example:
When specifying a 650 Series Sprinkler with a full-circle, 2-speed (60°-180°) arc, NPT threads, #54 nozzle, an electric valve and pressure regulation at 80 PSI (5.5 Bar), you would specify:
656-06-54

*Electric and normally closed models only

690 Series Sprinkler

73'-108' Radius (22-33m)

Features

- 2 standard pressure-regulation settings available to ensure consistently accurate nozzle performance — regardless of elevation:
 - 80 PSI and 100 PSI (5.5 and 6.9 Bar) (electric)
- 3 body styles/activation types available to fit every application:
 - Electric VIH. Normally Open Hydraulic VIH and Check-O-Matic
 - Manual control at the sprinkler, On-Off-Auto (electric)
 - Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure (electric)
 - Time-proven, gear-drive design
 - All internal components serviceable from the top of the sprinkler
 - Large selection of nozzles available
 - Durable engineering plastic and stainless-steel construction

Valve-In-Head Activation Types

Electric

- Pressure-regulation feature available to ensure that all sprinklers operate at the same pressure — regardless of elevation changes
- Manual On-Off-Auto control at the sprinkler
- Individual sprinkler control for more precise watering

Normally Open

- Individual sprinkler control for more precise watering
- Hydraulic control capability with sophisticated electronic/electric control systems
- Ideal for all dirty water applications — irrigation water is not used for control
- Lightning resistant

Check-O-Matic

- Requires separate remote control valve
- Maintains 37' (11.3m) elevation change
- Eliminates low-head drainage

690 Series Electric Valve-In-Head

Specifications

- Radius: 73'-108' (22-33m)
- Flow rate: 40.5-82.2 GPM (153-311 LPM)
- 1 1/2" female-threaded inlet
- Arc selections:
 - 90°, 150°, 165°, 180°, 195°, 210°, 360° fixed arcs
 - 60°/120° full-circle, two-speed
 - 180°/180° full-circle, two-speed (Two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit option:
 - Part No. 690-01
- Dimensions:
 - Height: 16" (405mm)

690 Series Performance Data

Base Pressure	Nozzle Set 90		Nozzle Set 91		Nozzle Set 92	
PSI	Rad	GPM	Rad	GPM	Rad	GPM
70	82	48.6	91	57.2	96	67.5
75	85	49.8	94	59.2	98	70.7
80	87	51.0	96	61.2	100	74.0
85	88	52.5	97	64.3	102	76.1
90	89	54.1	98	67.3	105	78.0
95	89	55.6	99	70.4	106	80.2
100	90	57.1	100	73.4	108	82.2

Rad = Feet GPM = Gallons per minute
 * = Nozzles not recommended at this pressure
 Sprinkler radius of throw per ASAE standard S308.1

Specifying Information

690 Series Sprinkler				
Arc		Valve Type	Nozzle	Pressure Regulation
1—90°	A—60°	1—Normally Open	90	8—80 PSI
2—180°	B—65°	Hydraulic	91	(5.5 Bar)
4—Full-Circle	C—95°	2—Check-O-Matic	92	1—100 PSI
6—Full-Circle	D—110°	6—Electric		(6.9 Bar)
2-Speed (60°-120°)				
8—Full-Circle				
2-Speed (180°-180°)				

For Example:

When specifying a 690 Series Sprinkler with a 180° arc, an electric valve-in-head, #91 nozzle and pressure regulation at 80 PSI (5.5 Bar), you would specify:

692-06-918

For Example:
 When specifying a 690 Series Sprinkler with a 180° arc, an electric valve-in-head, #91 nozzle and pressure regulation at 80 PSI (5.5 Bar), you would specify:

692-06-918

*Electric models only.

WATER CONSERVATION AND DROUGHT
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PERMITTEE: Atlantic Golf Management

PROGRAM INTEREST NO.: 4035PS

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I. WATER CONSERVATION COMPONENTS

A. WATER SYSTEM

1. Allocation: 9.63 mgm, 1000 gpm, 33 mgy
(entering irrigation system)
2. Sources of water:
number of wells 0
number of surface intakes 1
number of irrigation system intakes 1
total number of on site ponds 1
bulk purchases N/A mgd, _____ mgm, _____ mgy

3. Metering: (circle one)
- | | | | |
|---------------------------|------------|----|-----------|
| well | Yes | No | <u>NA</u> |
| stream | <u>Yes</u> | No | NA |
| pond/lake | <u>Yes</u> | No | NA |
| head of irrigation system | Yes | No | <u>NA</u> |
| bulk purchase | Yes | No | <u>NA</u> |
4. Date of last meter calibration: 10-2018 Pond, 5-3-2014 Stream
5. System Storage: All on site ponds 9 mg
Irrigation system storage _____ mg
6. Pumping Schedule: 8-10 hours/day, 9pm to 6 am
7. Interconnections: No. of _____, size _____" NA
8. Monitoring wells (if any): list well permit numbers, local ID and depths
(attach separate sheets)
NOTE: DO NOT INCLUDE THE PRODUCTION WELLS LISTED ABOVE
9. Source of potable supply (public water supplier, or well name/permit numbers, if self-supplied) Wall Twp

B. ANALYSIS OF WATER USE

1. Demand: Report demand from the most recent year for which you have complete data as the base year; identify the years the data refers to.

USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Base Year 20 <u>19</u>	<u>3.082</u>	<u>10.011</u>
Previous Year 20 <u>18</u>	<u>3.060</u>	<u>7.560</u>
Peak Year (of last 5) 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>
Peak Year (of last 10) 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>

PROJECTED USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Next Year 20 <u>20</u>	<u>9.63</u>	<u>33</u>
5 Year 20 <u>24</u>	<u>9.63</u>	<u>33</u>

2. Actual Use:
- | | |
|-----------------------------|--------------|
| lake/pond level maintenance | <u>0</u> % |
| irrigation | <u>100</u> % |
| potable | <u>0</u> % |
| other (explain) | <u>0</u> % |

3. Attach water balance.
Provide a simple diagram which indicates source, areas of use, amounts used in each, etc.

C. WATER CONSERVATION PRACTICES

1. Irrigation System:

- a. number, type, and capacity of nozzles 372, Toro, See Attached
b. number of heads in use at one time 12-20.
c. average duration of irrigation cycle 5-15 (min.) (hr.)

2. Irrigation requirements:

Area	# Acres	Acres Irrigated	Grass Type	%Low Water Use Grass
Tees	<u>3.5</u>	<u>3.5</u>	<u>Rye/Blue</u>	<u>0</u>
Greens	<u>2.75</u>	<u>2.75</u>	<u>Bent/Poa</u>	<u>50</u>
Fairways	<u>28</u>	<u>28</u>	<u>Rye/Blue Fescue</u>	<u>30</u>
Approaches	<u>.75</u>	<u>.75</u>	<u>Rye, Blue, Fescue</u>	<u>30</u>
Rough	<u>30</u>	<u>30</u>	<u>Rye, Blue, Fescue</u>	<u>30</u>
Other _____	<u>125</u>	<u>0</u>	<u>Rye, Blue, Fescue, Weeds</u>	<u>—</u>
Total	<u>190</u>	<u>65</u>		<u>-</u>

3. Moisture sensing devices type N/A
location _____

4. Are evapotranspiration rates used to calculate irrigation water needs? Please provide details.

No

5. Is any recycled/reused or treated wastewater used? If not, please indicate why not and provide details.

No

D. WORKER EDUCATION/AWARENESS

List methods employed to educate workers on methods to save water during day to day operations:

See Attached

Note: If more space is required for explanation please attach additional sheets as needed.

II. DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Note: This section should cover the procedures you follow in periods of low rainfall in your area or when local officials impose restrictions. The restrictions that apply when a drought emergency is declared by the Governor are not to be listed here.

A. ALTERNATE SUPPLIES

1. Storage, backup supplies, equipment and interconnections on standby status:

N/A

B. ACTION PROCEDURES

1. Order in which irrigation of different areas is curtailed or stopped.

See Attached

2. Other methods of dealing with an interruption of your supply.

IRRIGATION

WORKER EDUCATION/AWARENESS

While mowing and daily inspection of course looking for any wet spots out of the ordinary. Pro shop rangers also keep an eye out for us. If a leak is present we isolate area with gate valves and repair as necessary. If an area is getting too much water we can cut back the time on our computer program and or turn the head itself off. Also monitoring the weather through the weather channel.

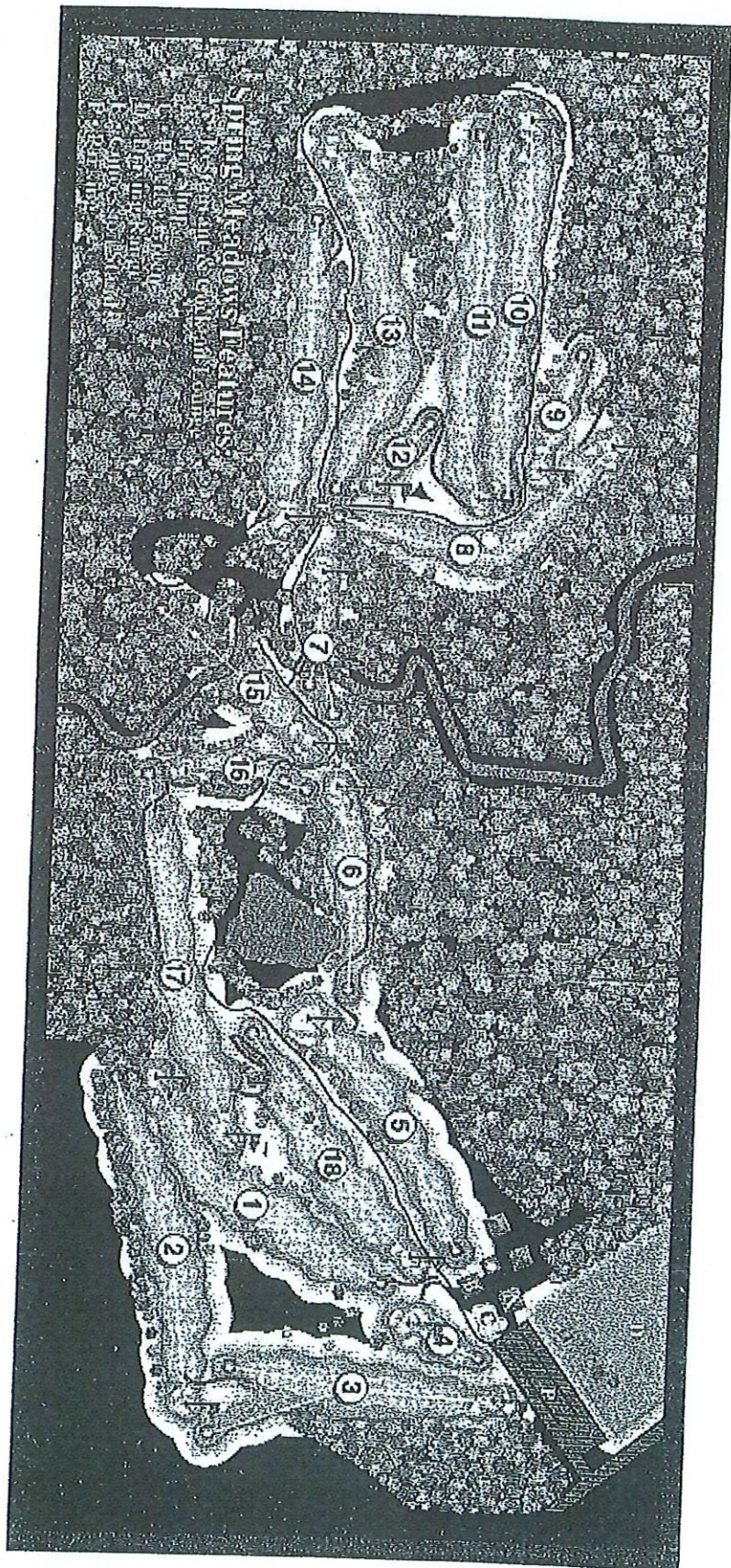
DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Section B. - Action procedures

1. Action we may take before emergency is declared.

Example.

1. Cut back on the amount of irrigation on certain areas.
 2. More hand watering.
 3. Monitor water use on a daily basis.
-
2. A. Raise the height of cut.
B. Reduce the number of mowing per week.
C. Determine areas most critical to play.



Large Turf

S P R I N K L E R S

650/670 Series Sprinklers

650 Series 56-86 Radius (17-26m)
670 Series 70-102 Radius (21-31m)

Features

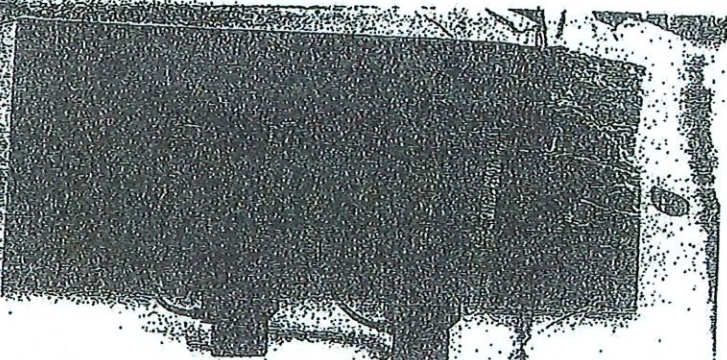
- Standard pressure regulation settings available to ensure consistently accurate nozzle performance
- 65 PSI (4.5 Bar) and 80 PSI (5.5 Bar) (electric) and 6.9 Bar (electric)
- 3 body styles/activation types available to fit every application:
- Electric V.I.H. Normally Open Hydraulic V.I.H. and Check-O-Matic
- Manual control at the sprinkler: On-Off Auto (electric and normally closed)
- Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure electric
- Time-proven gear-drive design
- All internal components serviceable from the top of the sprinkler
- Large selection of nozzles available
- Durable engineering plastic and stainless-steel construction

650 Specifications

- Radius: 56-86 (17-26m)
- Flow rate: 13.0-43.7 GPM (49-165 LPM)
- 1 1/2" (40mm) female-threaded inlet
- 70 arc selections:
- 60° x 120° full-circle, two-speed
- 180° x 180° full-circle, two-speed (two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit options:
- Part No. 650-00 (flat flange)
- Part No. 650-01 (ground flange)
- Dimensions:
- Height: 11" (280mm)

670 Specifications

- Radius: 70-102 (21-31m)
- Flow rate: 31.9-66.8 GPM (121-253 LPM)



650 Series
Electric
Valve-In-Head

670 Series
Check-O-Matic

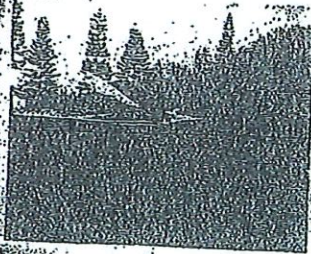
- 1 1/2" (40mm) female-threaded inlet
- Full-circle
- Rubber cover kit options:
- Part No. 670-00 (flat flange)
- Part No. 670-01 (ground flange)
- Dimensions:
- Height: 11" (280mm)

Base Pressure	Nozzle Set 70		Nozzle Set 71		Nozzle Set 72		Nozzle Set 73		Nozzle Set 74	
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	56	31.9	70	34.9	71	39.7	72	41.2	73	44.4
55	56	33.6	75	36.9	75	41.2	76	44.4	77	48.7
60	56	35.5	78	39.5	79	43.7	80	47.8	81	53.0
65	58	36.9	80	41.1	85	46.3	86	51.0	87	57.5
70	58	38.4	82	42.7	85	47.9	86	52.6	87	58.2
75	58	39.7	83	44.1	87	49.4	89	54.5	90	59.9
80	58	41.2	86	45.6	89	51.0	92	55.8	94	59.9
85	58	42.5	86	47.1	91	52.0	94	57.5	96	61.4
90	58	43.8	87	48.5	92	53.5	95	59.8	99	65.0
95	58	45.0	89	50.0	94	55.8	97	61.3	100	65.0
100	58	46.2	90	51.2	94	57.5	98	62.8	102	65.8

Rad = Feet GPM = Gallons per minute
Pressure regulation
Nozzles not recommended at this pressure
Sprinkler radius of throw per ASAE Standard S308.1

Base Pressure	Nozzle Set 51		Nozzle Set 55		Nozzle Set 57		Nozzle Set 59		Nozzle Set 61		Nozzle Set 63	
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	56	13.0	61	16.4	64	17.8	65	22.4	66	24.7	67	28.7
55	56	14.6	62	17.2	65	18.7	67	23.6	68	25.9	69	30.7
60	57	15.2	62	18.0	67	19.6	70	25.1	71	27.9	72	33.7
65	57	16.4	63	18.7	68	20.4	71	26.1	73	28.1	74	34.9
70	58	15.4	64	19.4	69	21.1	72	27.0	75	29.7	78	36.5
75	58	15.9	64	20.0	70	21.9	74	27.9	76	30.5	81	37.5
80	59	16.4	65	20.7	71	22.6	75	28.8	78	31.7	82	39.8
85	60	17.0	66	21.3	72	23.6	76	29.6	79	32.6	83	40.0
90	60	17.5	68	21.9	74	24.5	77	30.6	81	34.5	84	41.7
95	61	18.1	69	22.5	75	25.5	78	31.3	81	34.1	85	44.5
100	61	18.6	70	23.1	76	26.4	79	32.1	82	35.3	86	47.7

Rad = Feet GPM = Gallons per minute
Pressure regulation
Nozzles not recommended at this pressure
Sprinkler radius of throw per ASAE Standard S308.1



Specifying Information				
6XX X X X X				
Body Style	Valve Type	Nozzle	Pressure Regulation	
650	0-NPT 5-BSP	1-Normally Open Hydraulic 2-Check-O-Matic 6-Electric	650	6-65 PSI (4.5 Bar) 8-80 PSI (5.5 Bar) 1-100 PSI (6.9 Bar)
670			670	
Full-Circle			70 71 72 73 74	

For Example:
When specifying a 650 Series Sprinkler with a full-circle, 2-speed (60°-180°) arc, NPT threads, #54 nozzle, an electric valve and pressure regulation at 80 PSI (5.5 Bar), you would specify:
656-06-54

*Electric and normally closed models only

690 Series Sprinkler

73'-108' Radius (22-33m)

Features

- 2 standard pressure-regulation settings available to ensure consistently accurate nozzle performance — regardless of elevation:
 - 80 PSI and 100 PSI (5.5 and 6.9 Bar) (electric)
- 3 body styles/activation types available to fit every application:
 - Electric VIH, Normally Open Hydraulic VIH and Check-O-Matic
- Manual control at the sprinkler, On-Off-Auto (electric)
- Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure (electric)
- Time-proven, gear-drive design
- All internal components serviceable from the top of the sprinkler
- Large selection of nozzles available
- Durable engineering plastic and stainless-steel construction

Valve-In-Head Activation Types

Electric

- Pressure-regulation feature available to ensure that all sprinklers operate at the same pressure — regardless of elevation changes
- Manual On-Off-Auto control at the sprinkler
- Individual sprinkler control for more precise watering

Normally Open

- Individual sprinkler control for more precise watering
- Hydraulic control capability with sophisticated electronic/electric control systems
- Ideal for all dirty water applications — irrigation water is not used for control
- Lightning resistant

Check-O-Matic

- Requires separate remote control valve
- Maintains 37' (11.3m) elevation change
- Eliminates low-head drainage

690 Series Electric Valve-In-Head

Specifications

- Radius: 73'-108' (22-33m)
- Flow rate: 40.5-82.2 GPM (153-311 LPM)
- 1½" female-threaded inlet
- Arc selections:
 - 90°, 150°, 165°, 180°, 195°, 210°, 360° fixed arcs
 - 60°/120° full-circle, two-speed
 - 180°/180° full-circle, two-speed (Two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit option:
 - Part No. 690-01
- Dimensions:
 - Height: 16" (405mm)

690 Series Performance Data

Base Pressure PSI	Nozzle Set 90		Nozzle Set 91		Nozzle Set 92	
	Rad	GPM	Rad	GPM	Rad	GPM
70	82	48.6	91	57.2	96	67.5
75	85	49.8	94	59.2	98	70.7
80	87	51.0	96	61.2	100	74.0
85	88	52.5	97	64.3	102	76.1
90	89	54.1	98	67.3	105	78.0
95	89	55.6	99	70.4	106	80.2
100	90	57.1	100	73.4	108	82.2

Rad = Feet GPM = Gallons per minute
 --- = Nozzles not recommended at this pressure
 Sprinkler radius of throw per ASAE standard S308.1

Specifying Information

69X 0X XX X

Arc	Valve Type	Nozzle	Pressure Regulation
1—90° 2—180° 4—Full-Circle 6—Full-Circle, 2-Speed (60°-120°) 8—Full-Circle, 2-Speed (180°-180°)	1—Normally Open Hydraulic 2—Check-O-Matic 6—Electric	90 91 92	8—80 PSI (5.5 Bar) 1—100 PSI (6.9 Bar)

For Example:
 When specifying a 690 Series Sprinkler with a 180° arc, an electric valve-in-head, #91 nozzle and pressure regulation at 80 PSI (5.5 Bar), you would specify:

692-06-918

*Electric models only.

WATER CONSERVATION AND DROUGHT
EMERGENCY MANAGEMENT PLAN REPORT
FOR GOLF COURSES/IRRIGATION

PERMITTEE: ATLANTIC GOLF MANAGEMENT PROGRAM INTEREST NO.: 4035PS

CONTACT NAME: MARK KATZ

DATE: 10-1-16

ADDRESS: 4181 ATLANTIC AVE FARMINGDALE NJ 07727

EMAIL ADDRESS: [REDACTED]

TELEPHONE NO.: [REDACTED]

Submit to: Mail Code 401-04Q
Bureau of Water Allocation & Well Permitting
P.O. Box 420
Trenton, New Jersey 08625-0420

See your Water Allocation Permit for your submittal schedule

NOTE: You must read and complete all sections of the worksheet. Your Water Allocation Permit requires water conservation and water management activities that you may not usually consider in this context but no section may be omitted.

Please discard your file copies of the previous worksheets and/or delete or update computerized forms. Your report must be submitted on an exact replica of this worksheet, either a photocopy or a computerized version, with the original kept on file for future reference. An incomplete worksheet will be returned to you. If there is not enough space provided for your information, additional pages should be used.

I. WATER CONSERVATION COMPONENTS

A. WATER SYSTEM

1. Allocation: 9.63 mgm, 1000 gpm, 33 mgy
(entering irrigation system)
2. Sources of water:
number of wells 0
number of surface intakes 1
number of irrigation system intakes 1
total number of on site ponds 1
bulk purchases N/A mgd, _____ mgm, _____ mgy

3. Metering: (circle one)
- | | | | |
|---------------------------|------------|----|-----------|
| well | Yes | No | <u>NA</u> |
| stream | <u>Yes</u> | No | NA |
| pond/lake | <u>Yes</u> | No | NA |
| head of irrigation system | Yes | No | <u>NA</u> |
| bulk purchase | Yes | No | <u>NA</u> |
4. Date of last meter calibration: 5-3-2014 STREAM
10-2014 POND
5. System Storage: All on site ponds 9 mg
Irrigation system storage _____ mg
6. Pumping Schedule: 8-10 hours/day, 9am to 6am
7. Interconnections: No. of _____, size _____" NA
8. Monitoring wells (if any): list well permit numbers, local ID and depths
(attach separate sheets)
NOTE: DO NOT INCLUDE THE PRODUCTION WELLS LISTED ABOVE
9. Source of potable supply (public water supplier, or well name/permit numbers, if self-supplied): WALL TWP

B. ANALYSIS OF WATER USE

1. Demand: Report demand from the most recent year for which you have complete data as the base year; identify the years the data refers to.

USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Base Year 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>
Previous Year 20 <u>14</u>	<u>6.544</u>	<u>17.017</u>
Peak Year (of last 5) 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>
Peak Year (of last 10) 20 <u>15</u>	<u>6.074</u>	<u>20.933</u>

PROJECTED USAGE	PEAK MONTH (mgm)	ANNUAL (mg)
Next Year 20 <u>16</u>	<u>9.63</u>	<u>33</u>
5 Year 20 <u>21</u>	<u>9.63</u>	<u>33</u>

2. Actual Use:
- | | |
|-----------------------------|--------------|
| lake/pond level maintenance | <u>0</u> % |
| irrigation | <u>100</u> % |
| potable | <u>0</u> % |
| other (explain) | <u>0</u> % |

3. Attach water balance.
Provide a simple diagram which indicates source, areas of use, amounts used in each, etc.

C. WATER CONSERVATION PRACTICES

1. Irrigation System:

- a. number, type, and capacity of nozzles 372, TORO, SEE ATTACHED
- b. number of heads in use at one time 12-20.
- c. average duration of irrigation cycle 5-15 (min) (hr.)

2. Irrigation requirements:

Area	# Acres	Acres Irrigated	Grass Type	%Low Water Use Grass
Tees	<u>3.5</u>	<u>3.5</u>	<u>RYE/BLUE</u>	<u>0</u>
Greens	<u>2.75</u>	<u>2.75</u>	<u>BENT/POA</u>	<u>50</u>
Fairways	<u>28</u>	<u>28</u>	<u>RYE/BLUE</u> <u>FESCUE</u>	<u>30</u>
Approaches	<u>.75</u>	<u>.75</u>	<u>RYE/BLUE</u> <u>FESCUE</u>	<u>30</u>
Rough	<u>30</u>	<u>30</u>	<u>RYE/BLUE</u> <u>FESCUE</u>	<u>30</u>
Other _____	<u>125</u>	<u>—</u>	<u>RYE/BLUE</u> <u>FESCUE/WOODS</u>	<u>—</u>
Total	<u>190</u>	<u>65</u>	<u>-</u>	<u>-</u>

3. Moisture sensing devices type _____
location _____

4. Are evapotranspiration rates used to calculate irrigation water needs? Please provide details.

NO

5. Is any recycled/reused or treated wastewater used? If not, please indicate why not and provide details.

NO

D. WORKER EDUCATION/AWARENESS

List methods employed to educate workers on methods to save water during day to day operations:

SEE ATTACHED

Note: If more space is required for explanation please attach additional sheets as needed.

II. DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Note: This section should cover the procedures you follow in periods of low rainfall in your area or when local officials impose restrictions. The restrictions that apply when a drought emergency is declared by the Governor are not to be listed here.

A. ALTERNATE SUPPLIES

1. Storage, backup supplies, equipment and interconnections on standby status:

N/A

B. ACTION PROCEDURES

1. Order in which irrigation of different areas is curtailed or stopped.

SEE ATTACHED

2. Other methods of dealing with an interruption of your supply.

690 Series Sprinkler

73'-108' Radius (22-33m)

Features

- 2 standard pressure-regulation settings available to ensure consistently accurate nozzle performance — regardless of elevation:
 - 80 PSI and 100 PSI (5.5 and 6.9 Bar) (electric)
- 3 body styles/activation types available to fit every application:
 - Electric VIH, Normally Open Hydraulic VIH and Check-O-Matic
 - Manual control at the sprinkler, On-Off-Auto (electric)
- Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure (electric)
- Time-proven, gear-drive design
- All internal components serviceable from the top of the sprinkler
- Large selection of nozzles available
- Durable engineering plastic and stainless-steel construction



690 Series Electric Valve-In-Head

Specifications

- Radius: 73'-108' (22-33m)
- Flow rate: 40.5-82.2 GPM (153-311 LPM)
- 1½" female-threaded inlet
- Arc selections:
 - 90°, 150°, 165°, 180°, 195°, 210°, 360° fixed arcs
 - 60°/120° full-circle, two-speed
 - 180°/180° full-circle, two-speed (Two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit option:
 - Part No. 690-01
- Dimensions:
 - Height: 16" (405mm)

Valve-In-Head Activation Types

Electric

- Pressure-regulation feature available to ensure that all sprinklers operate at the same pressure — regardless of elevation changes
- Manual On-Off-Auto control at the sprinkler
- Individual sprinkler control for more precise watering

Normally Open

- Individual sprinkler control for more precise watering
- Hydraulic control capability with sophisticated electronic/electric control systems
- Ideal for all dirty water applications — irrigation water is not used for control
- Lightning resistant

Check-O-Matic

- Requires separate remote control valve
- Maintains 37' (11.3m) elevation change
- Eliminates low-head drainage

690 Series Performance Data						
Base Pressure	Nozzle Set 90		Nozzle Set 91		Nozzle Set 92	
PSI	Rad	GPM	Rad	GPM	Rad	GPM
70	82	48.6	91	57.2	96	67.5
75	85	49.8	94	59.2	98	70.7
80	87	51.0	96	61.2	100	74.0
85	88	52.5	97	64.3	102	76.1
90	89	54.1	98	67.3	105	78.0
95	89	55.6	99	70.4	106	80.2
100	90	57.1	100	73.4	108	82.2

Rad = Feet GPM = Gallons per minute
 PSI = Nozzles not recommended at this pressure
 Sprinkler radius of throw per ASAE standard S398.1

Specifying Information

69X 0X XX X			
Arc	Valve Type	Nozzle	Pressure Regulation*
1—90°	1—Normally Open	90	8—80 PSI
2—180°	Hydraulic	91	(5.5 Bar)
4—Full-Circle	2—Check-O-Matic	92	1—100 PSI
6—Full-Circle, 2-Speed (60°-120°)	6—Electric		(6.9 Bar)
8—Full-Circle, 2-Speed (180°-180°)			

For Example:
 When specifying a 690 Series Sprinkler with a 180° arc, an electric valve-in-head, #91 nozzle and pressure regulation at 80 PSI (5.5 Bar), you would specify:

692-06-918

*Electric models only.



Large Turf SPRINKLERS

650/670 Series Sprinklers

(650 Series) 56-86 Radius (17-26m)

(670 Series) 70-102 Radius (21-31m)

Features

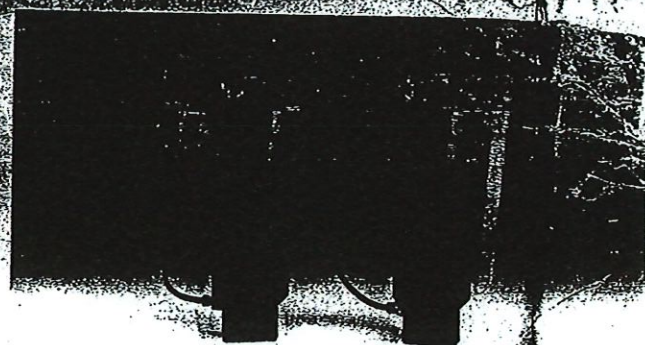
- 3 standard pressure regulation settings available to ensure consistently accurate nozzle performance regardless of elevation
- 65 PSI (4.5 Bar) and 80 PSI (5.5 Bar) (electric) and 6.9 Bar (electric)
- 3 body styles/activation types available to fit every application:
 - Electric V.H. Normally Open
 - Hydraulic V.H. and Check-O-Matic
 - Manual control at the sprinkler On-Off-Auto (electric and normally closed)
- Bowl-vented discharge (atmospheric) minimizes the differential pressure required for regulation and ensures positive valve closure (electric)
- Time-proven gear-drive design
- All internal components serviceable from the top of the sprinkler
- Large selection of nozzles available
- Durable engineering plastic and stainless-steel construction

650 Specifications

- Radius: 56-86 (17-26m)
- Flow rate: 13.0-43.7 GPM (49-165 LPM)
- 1½" (40mm) female-threaded inlet
- Two arc selections:
 - 60° x 120° full-circle, two-speed
 - 180° x 180° full-circle, two-speed (two-speed models run half speed in non-overlap areas to provide balanced water application)
- Rubber cover kit options:
 - Part No. 650-00 (flat flange)
 - Part No. 650-01 (round flange)
- Dimensions:
 - Height: 11" (280mm)

670 Specifications

- Radius: 70-102 (21-31m)
- Flow rate: 31.9-66.8 GPM (121-253 LPM)



650 Series
Electric
Valve-In-Head

670 Series
Check-O-Matic

- 1½" (40mm) female-threaded inlet
- Full-circle

- Rubber cover kit option:
 - Part No. 670-00 (flat flange)
 - Part No. 670-01 (round flange)
- Dimensions:
 - Height: 11" (280mm)

670 Series Performance Data

670 Series Performance Data										
Base Pressure	Nozzle Set 70		Nozzle Set 71		Nozzle Set 72		Nozzle Set 73		Nozzle Set 74	
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	70	31.9	70	34.9	71	38.7	72	41.5	73	44.4
55	73	33.6	73	36.9	74	41.2	75	44.6	76	48.7
60	76	35.5	78	39.5	79	43.7	80	47.8	81	53.0
65	78	36.9	80	41.1	83	46.3	84	51.0	86	57.5
70	80	38.4	82	42.7	85	47.9	86	52.6	88	58.2
75	82	39.7	83	44.1	87	49.4	89	54.3	91	58.9
80	84	41.2	86	45.6	89	51.0	92	55.3	94	59.6
85	86	42.5	88	47.1	91	52.0	94	57.9	96	61.4
90	88	43.8	90	48.5	92	53.5	95	59.8	99	63.4
95	90	45.0	92	50.2	94	55.7	97	61.3	100	65.0
100	92	46.2	94	51.2	96	56.3	98	62.8	102	67.8

Rad = Feet GPM = Gallons per minute Pressure regulation
 * Nozzles not recommended at this pressure
 Sprinkler radius of 1 foot per ASAE standard S398.1

650 Series Performance Data

650 Series Performance Data												
Base Pressure	Nozzle Set 54		Nozzle Set 55		Nozzle Set 56		Nozzle Set 57		Nozzle Set 58		Nozzle Set 59	
PSI	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM	Rad	GPM
50	56	13.0	61	16.4	64	17.8	65	22.4	66	24.7	67	28.7
55	56	13.6	62	17.2	65	18.7	67	23.6	68	25.8	71	30.7
60	57	14.2	62	18.0	67	19.6	70	25.1	71	26.9	76	33.7
65	57	14.8	63	18.7	68	20.4	71	26.1	73	28.1	78	34.9
70	58	15.4	64	19.4	69	21.1	72	27.0	75	28.7	80	36.5
75	58	15.9	64	20.0	70	21.9	74	27.9	76	30.5	81	37.5
80	59	16.4	65	20.7	71	22.6	75	28.8	78	31.7	82	38.8
85	60	17.0	66	21.3	72	23.6	76	29.6	79	32.6	83	40.0
90	60	17.5	68	21.9	74	24.5	77	30.6	80	33.5	84	41.7
95	61	18.1	69	22.5	75	25.5	78	31.3	81	34.1	85	42.5
100	61	18.6	70	23.1	76	26.4	79	32.1	82	35.3	86	43.7

Rad = Feet GPM = Gallons per minute Pressure regulation
 * Nozzles not recommended at this pressure
 Sprinkler radius of 1 foot per ASAE standard S398.1

Specifying Information

Body Thread	Valve Type	Nozzle	Pressure Regulation
650	0-NPT 5-BSP	1-Normally Open Hydraulic 2-Check-O-Matic 6-Electric	650 6-65 PSI (4.5 Bar) 5-55 56 5-58 59 1-80 PSI (5.5 Bar)
670			670 70 71 72 73 74

For Example:
 When specifying a 650 Series Sprinkler with a full-circle, 2-speed (60°-180°) arc, NPT threads, #54 nozzle, an electric valve and pressure regulation at 80 PSI (5.5 Bar), you would specify:
656-66-548

* Electric and normally closed models only

IRRIGATION WORKER EDUCATION/AWARENESS

While mowing and daily inspection of course looking for any wet spots out of the ordinary. Pro shop rangers also keep an eye out for us. If a leak is present we isolate area with gate valves and repair as necessary. If an area is getting too much water we can cut back the time on our computer program and or turn the head itself off. Also monitoring the weather through the weather channel.

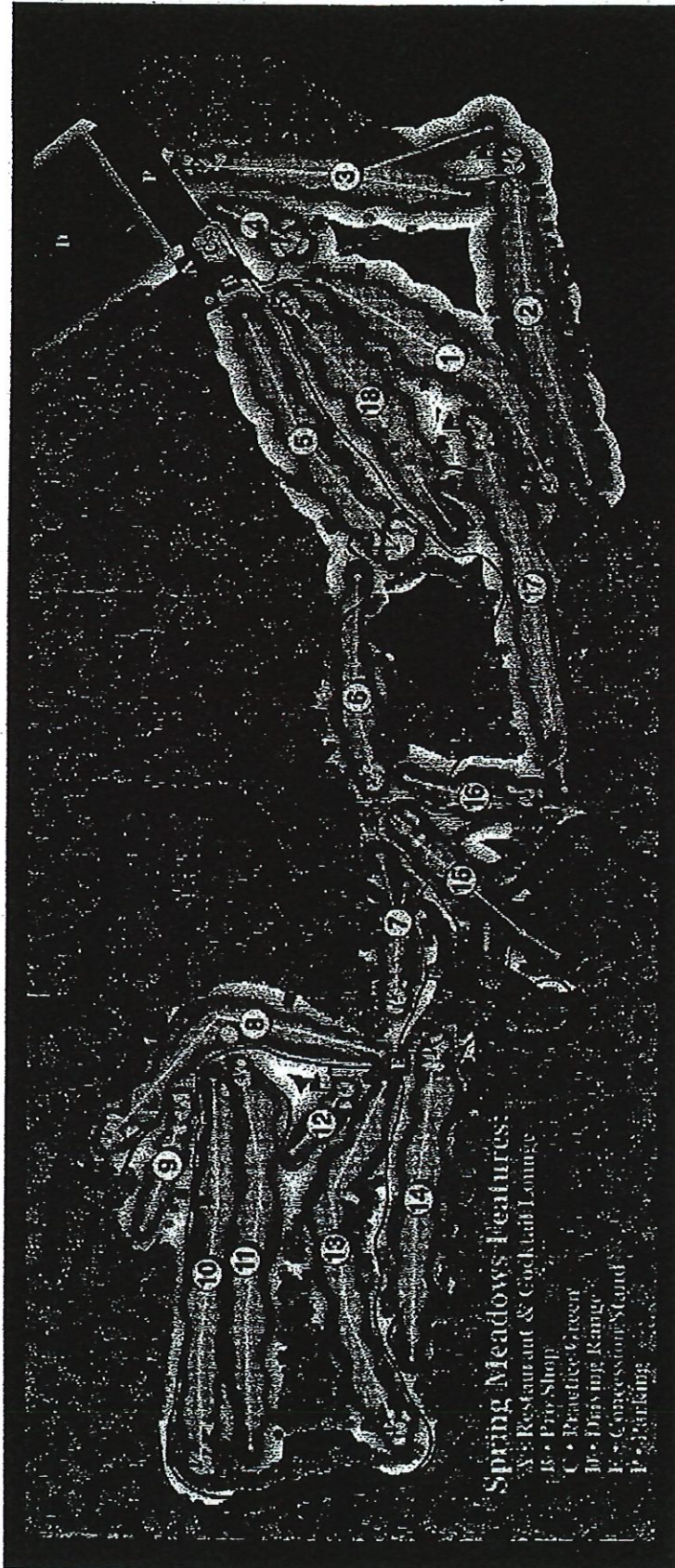
DROUGHT OR WATER SUPPLY EMERGENCY MANAGEMENT COMPONENTS

Section B. – Action procedures

1. Action we may take before emergency is declared.

Example.

1. Cut back on the amount of irrigation on certain areas.
 2. More hand watering.
 3. Monitor water use on a daily basis.
-
2. A. Raise the height of cut.
B. Reduce the number of mowing per week.
C. Determine areas most critical to play.



Spring Meadows Features:

- A • Restaurant & Cocktail Lounge
- B • Pro Shop
- C • Practice Green
- D • Driving Range
- E • Concession Stand
- F • Parking