Oklahoma Pre-Approved Structures, Components, and Appurtenances

DISCLAIMER:

These lists include structures, appurtenances, and components that have been approved for use under the applicable conservation practice standard. Items in these lists have been studied and reviewed for technical adequacy for their intended use. These lists are not intended to favor one company's product over another; they only reflect those items that have been submitted for review and have been approved. Items not in these lists must be individually approved before installed. These lists are applicable to the appropriate conservation practice standard regardless of program or cost share.

Some of the items listed are approved conditionally meaning that certain criteria must be met for them to be used. Conditional criteria, if applicable, follows each list.

PROCEDURE FOR SUBMITTAL OF ITEMS TO BE ADDED TO THE LIST

1. Submittal shall be from the Zone Technical Committees through the Technology Leadership Team (TLT). Field office personnel shall submit items for consideration to their Zone Technical Committee.

2. Prior to submittal, the person making the submission to the Zone Technical Committee shall provide adequate and appropriate specifications and/or manufacturer's information regarding the item to the appropriate Technical Specialist. The Technical Specialist shall review the request and conduct a site visit of at least two installations, interview the landowners using the item, and provide their recommendation.

3. The submittal shall include all pertinent data the Technical Specialist deems necessary to support their evaluation.

4. The Technology Leadership Team (TLT) will consider each submission and approve, reject, or return for additional information.

Oklahoma Pre-Approved Lists

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Item	Applicable Conservation Practice Standard	Issue Date	Review Date
Air Relief Valves	Irrigation Water Conveyance Pipeline (430)	6/2/03	6/2/03
Cellular Confinement Systems	Heavy Use Area Protection (561), Animal Trails and Walkways (575), Stream Crossing (578)	7/17/06	7/17/06
Chemigation Valves	Irrigation System, Sprinkler (443), Irrigation System, Microirrigation (441), Irrigation System, Tailwater Recovery (447), Irrigation System, Surface or Subsurface (442)	10/5/06	10/5/06
Energy-Free Fountains	Watering Facility (614)	6/2/03	8/25/08
Flowmeters	Irrigation Water Management (449)	10/5/06	12/17/12
Fiberglass Tanks	Watering Facility (614)	9/13/06	8/25/08
Freeze Proof Tanks	Watering Facility (614)	6/2/03	4/19/06
Heavy Equipment Tire Trough	Watering Facility (614)	8/25/08	3/23/10
Plastic Anti-seep Collar	Pond (378), Grade Stabilization Structure (410), Structure for Water Control (587), Sediment Basin (350), Water and Sediment Control Basin (638)	6/2/03	3/23/10
Plastic Inlets	Structure for Water Control (587), Sediment Basin (350), Water and Sediment Control Basin (638)	6/14/06	3/23/10
Polyethylene Water Storage Tanks	Watering Facility (614)	6/9/11	6/9/11
Pressure Relief Valves	Irrigation Water Conveyance Pipeline (430)	6/2/03	6/2/03
Rodent Guards	Pond (378), Structure for Water Control (587)	6/14/05	3/23/10
Rotary Drum Composter	Animal Mortality Facility (316)	1/14/11	1/14/11
Soil Moisture Sensors	Irrigation Water Management (449)	2/03/15	2/03/15
Solar Panel Mounting Structures	Pumping Plant (533)	3/23/10	10/05/12
Solar Panels for Solar Pumps	Pumping Plant (533)	3/23/10	2/11/11
Solar Pump	Pumping Plant (533)	3/23/10	3/23/10
Trash Guards	Pond (378), Structure for Water Control (587)	6/14/05	3/23/10
Turf Reinforced Matting	Pond (378), Grade Stabilization Structure (410), Structure for Water Control (587), Sediment Basin (350), Water and Sediment Control Basin (638)	10/2/06	3/23/10
Underground Outlet Inlets	Underground Outlet (620)	9/13/06	3/23/10
Water Well Testing	Water Well Testing (355)	8/29/13	8/29/13
Wildlife Water Facility	Watering Facility (614)	6/2/03	3/23/10

Oklahoma Pre-Approved Lists

Air Relief Valves

No.	Brand Name	Model	Base Dia. (in.)	Orifice Dia. (in.)		Max. Pipe Dia. (in.)	
				Fraction	Decimal	High Press.	Low Press.
1	Waterman	1” AVP-1	1	1/2	0.500	2	4
2	Fresno	100P	1	3/4	0.750	4	6
3	Waterman	1” CRP-8	2	1 1/8	1.125	4	10
4	Travis	AV-150	1 1/2	1 1/8	1.125	4	10
5	Waterman	AV-150B	1 1/2	1 1/8	1.125	4	10
6	Waterman	AV-150P	2	1 1/8	1.125	4	10
7	Travis	AV-200	2	1 1/4	1.250	6	12
8	Waterman	AV-150B	2	1 1/4	1.250	6	12
9	Waterman	AVR-2	2	1 7/16	1.4375	6	14
10	Waterman	AV-75	2	1 5/8	1.625	6	16
11	Fresno	AG200	2	1 5/8	1.625	6	16
12	Fresno	AG200A	2	1 3/4	1.750	8	16
13	Waterman	AV-150B	2 1/2	1 3/4	1.750	8	16
14	Waterman	AV-150C	2	1 3/4	1.750	8	16
15	Rain Bird	RB-2AV	2	1 3/4	1.750	8	16
16	Fresno	AG200-B	2	1 3/4	1.750	8	16
17	Waterman	AV-150P	3	1 3/16	1.8125	8	18
18	Waterman	VR-125	2	1 7/8	1.875	8	18
19	Waterman	AV-200	3	2 1/32	2.03125	8	20
20	Waterman	2” CRP-8	2	2 1/16	2.0625	8	20
21	Waterman	CR-100	2	2 1/16	2.0625	8	20
22	Waterman	2” AVP-1	2	2 1/8	2.125	8	20
23	Fresno	35	2	2 1/8	2.125	8	20
24	Waterman	3” AV-15 Manifold	3	2 3/16	2.1875	8	20
25	Waterman	AV-150B	3	2 1/4	2.250	10	22
26	Travis	AV-200	3	2 1/4	2.250	10	22
27	Fresno	AG300	3	2 3/8	2.375	10	22
28	Waterman	AV-75	3	2 7/16	2.4375	10	24
29	Waterman	4” AV-150 Manifold	4	2 1/2	2.500	10	24
30	Fresno	AG-300-B		2 1/2	2.500	10	24
31	Rain Bird	RB-3AV		2 9/16	2.5625	10	24
32	Waterman	VR-125	3	3	3.000	12	27
33	Waterman	AV-75	4	3	3.000	12	27
34	Waterman	CR-100	3	3 1/16	3.0625	12	27
35	Waterman	AV-150P	4	3 1/8	3.125	12	27
36	Fresno	35	3	3 1/8	3.125	12	27
37	Waterman	AV-150B	4	3 1/4	3.250	14	27
38	Fresno	AG400	4	3 1/4	3.250	14	27
39	Waterman	AV-150C	4	3 1/2	3.500	15	27
40	Fresno	AG400-A	4	3 1/2	3.500	15	27
41	Rain Bird	RB-4AV	4	3 3/5	3.600	15	27
42	Fresno	AG400-B	4	3 5/8	3.625	15	27
43	Waterman	VR-125	4	4	4.000	18	27
44	Waterman	CR-100	4	4	4.000	18	27
45	Fresno	35	4	4 1/8	4.125	18	27

Air Relief Valves (cont.)

Low Pressure Pipelines (< 50 psi) – Air-and-Vacuum Valves

The diameter of the orifice (the opening that controls air flow during filling and emptying operations) of an air-and-vacuum valve shall equal or exceed that specified below for the appropriate pipe diameter.

Diameter of Pipeline (in.)	Diameter of Orifice (in.)
4	3/4
6	1 1/4
8	1 3/4
10	2 1/4
12	2 3/4
14	3 1/4
15	3 1/2
16	3 3/4
18	4

Manufacturers of air-and-vacuum valves shall provide dimensional data, which shall be the basis for selecting and accepting these valves.

High Pressure Pipelines (>50 psi)

The ratio of air-release valve diameter to pipe diameter should not be less than 0.1 for valves intended to release air when filling the pipe.

Air-release valves or combination air valves shall be used as need to permit air to escape from the pipeline while the line is at working pressure. Small orifices of these types shall be sized according to the working pressure and venting requirements recommended by the valve manufacturer.

Manufacturers of air valves shall provide dimensional data, which shall be the basis for selecting and accepting these valves.

Cellular Confinement System

WebTec, Inc., Terracell 140, 175, and 280
Cell Height 6 inches and 8 inches

Oklahoma Pre-Approved Lists

Chemigation Valves

Fresno Valves and Castings, Inc. -
Fresno/Pierce Chemigation Check Valves Series CT100 4” to 12”
GNI Waterman LLC -
Waterman Chemigation Check Valves Series CPC-30 4” to 12”

Energy-Free Fountain Waterers

Behlen Mfg. Co. Energy-Free Drinkers

Hawkeye Steel Products, Inc. – Pride Of The Farm, Polar-Max, Brower Energy Free Fountains – Models WPM20 and MPM20

Lapp Energy Free Livestock Automatic Waterer Fountains (Dynamo Company) – Model 2008 and Model 4014

Miraco Mirafount Energy-Free Waterers

Ritchie Thrifty King Electric-Free Fountain Waterers

Cobett Company’s Energy-Free Fountain Waterer – Model LB 36 with the Float Valve System

Flow Meters

McCrometer, Inc. – Series M100, M300, M1400 propeller flow meters 2” – 36”

McCrometer, Inc. – Series MO300F Flow Meter and FS100 Insertion Flow Straightener

Sensus Metering Systems – Model 101/102 propeller flow meters 3” – 36” and Irrigation Clamp-On Saddle Type propeller flow meters 4” – 24”

Sparling Instruments – Model 312 “Irrigation Low Pressure” propeller meters 4” – 14”

Elster Amco – Aquamaster electronic flow meters (any size)

SeaMetrics, Inc. – Series AG1000/2000 electronic flow meters (any size)

Fiberglass Stock and Storage Tanks meeting ASTM D-4097 or D-3299

Power Pipe and Tank LLC (formerly Mur-Tex Company)
Stock Tank (2’ tall) – All Sizes
Water Storage Tanks – All Sizes

KBK Industries
Stock Tank (2’ tall) Sizes 4’, 5’, 6’, 7’, 8’, 9’, 10’, 12’, 15’, and 22’
Open Top Storage Tanks Sizes: 8’ diameter X 6’ tall

United Fiberglass, INC
Stock Tank (2' tall) Sizes 4' to 25'
Open Top Storage Tank Sizes 8' to 16' diameter, 6' to 8' high

W & W Fiberglass Tank Company
Stock Tank (2' tall) Sizes 4', 6', 8', 10', 12', 16', 20, and 24'

Freeze-Proof Tanks

Si Precast Concrete Products – precast concrete, freeze proof tanks
100 GALLON/BTM PLB
100 GALLON/END PLB
200 GALLON/END PLB

Stewart Concrete Product – precast concrete, freeze proof tank
Anti-Siphon C.W. 200 Livestock Water (250 gallons)

Heavy Equipment Tire Trough

USA Tire Management Systems
Water Tanks – Sizes 5' to 10' diameter with precast concrete insert

Plastic Anti-seep Collar

Scheib Drainage Products, NO-SEEP Anti-seep collar

Plastic Inlets

Agri Drain Inline Water Level Control Structures,
Sizes: 2'X4" PVC to 12'X18" PVC

Agri Drain Inlet Water Level Control Structures,
Sizes: 2'X4" PVC to 6'X24" PVC

Polyethylene Water Storage Tanks

Norwesco Inc. – Vertical Storage Tanks – All Sizes
Norwesco Inc. – Black or Dark Green Water Tanks – All Sizes

Pressure Relief Valves

Brand Name	Model	Size (in.)	Low Pressure Pipe (<50 psi) Max. Capacity at Preset Crack Pressure 22 psi (GPM)	Low Pressure Pipe (<50 psi) Max. Capacity at Preset Crack Pressure 45 psi (GPM)	High Pressure Pipe (>50 psi) Max. Pipe Diameter (in.)
Waterman	AA-9	3	700	960	12
	AA-9	4	1050	1380	16
	AA-9	6	1620	3000	24
	AA-6	2	60	275	8
	AA-6	2 ½	60	275	10
	AA-6	3	60	275	12
	AA-69	3	50	---	12
	AA-96	3	900	900	12
	AA-96-T	3	665	---	12
Fresno	900	3	700	1020	12
	900	4	1060	1400	16
	900	6	1600	2800	24
	600	2	75	210	8
	600	2 ½	75	210	10
	600	3	170	422	12
Pierce		3	140	---	12

- For high pressure pipelines, pressure relief valves shall be no smaller than ¼ inch nominal size for each inch of the pipeline diameter and shall be set to open at a pressure no greater than 5 psi above the pressure rating of the pipe.

- For low pressure pipelines, the flow capacity of pressure relief valves shall be the pipeline design flow rate with a pipeline pressure not greater than 50% more than the permissible working pressure for the pipe.

- The pressure at which the valves start to open shall be marked on each pressure relief valve. Adjustable pressure relief valves shall be sealed or otherwise altered to prevent changing the adjustment from that marked on the valve.

- Manufacturers of pressure relief valves shall provide capacity tables, based on performance tests, which give the discharge capacity of the valves at the maximum permissible pressure and differential pressure settings. Such tables shall be the basis for design and acceptance of these valves.

Rodent Guards

Agri Drain Rat Guards
Sizes: 4” to 60” Stainless Steel

Oklahoma Pre-Approved Lists

Rotary Drum Composter

Nioex Systems Inc. – BIOvator – All Sizes
Tri-Form Poly Inc. – Ecodrum – All Sizes

Soil Moisture Sensors

Medium Intensity – These systems are NOT connected to the web, no telemetry, no subscription service for a wireless device, but they do have an in-the-field data logger.

- Decagon Devices
- Watermark
- WaterScout

High Intensity – These systems require that the monitoring system have telemetry to transmit the soil moisture data from the field to a producer's laptop computer, IPhone, IPad, etc. The producer does not have to go to the field to retrieve the soil moisture data.

- Aqua Spy Inc.
- AquaCheck
- CropMetrics LLC
- John Deere Field Connect

Solar Panel Mounting Structures

Array Technologies Mounting Structure
Bison Solar Shop-Made Solar Panel Mounting Bracket
Direct Power and Water Mounting Structure
Grundfos Mounting Structure
Ironridge (formally known as Two Seas) Mounting Structure
UniRac Inc. Mounting Structure
Zomeworks Corp. Mounting Structure

Solar Pumps (all pumps must be purchased with a 3 yr warranty)

Bison – BSP Series Solar Pumps
Grundfos – Stainless Steel Submersible Pumps
Lorentz – PS Series Helical Rotor Submersible Solar Pumps (Extended Warranty Needed)
SunRotor – SRP-3.3-24-130/170; SRP-6.0-36-195/255/405

Trash and Debris Guard

Agri Drain Heavy Duty Bar Guards
Sizes: 12" to 30"

Oklahoma Pre-Approved Lists

Turf Reinforced Matting (TRM)

North American Green Vmax^3 C350, Permanent Turf Reinforcement Mat

Underground Outlet Inlets

Hickenbottom Intakes
Sizes 5”, 6”, 8”, 10”, and 12”

Water Well Testing

Cimarron County Conservation District Water Testing Lab

Wildlife Watering Facility

Wildlife Water Guzzler, LLC. - Fiberglass Reservoirs
4 feet diameter by 2 feet deep, 200 gallons
8 feet diameter by 2 feet deep, 750 gallons
8 feet diameter by 6 feet deep, 2200 gallons
12 feet diameter by 6 feet deep, 5000 gallons

Oklahoma Pre-Approved Lists

Vendor Directory

Agri Drain Corporation
1462 340th St.
Adair, IA 50002
1-800-232-4742
1-641-742-5211
www.agridrain.com

AquaCheck
Corporate Office: 22728 141st Drive
Perry, Iowa 50220
Phone: (402) 740-3687
www.aquachecktech.com

AquaSpy, Inc.
Northern TX Panhandle and OK
Phone: (806) 731-2429
www.aquaspy.com

Array Technologies
3312 Stanford
NE Albuquerque, NM 87107
1-505-881-7567
www.wattsun.com

Behlen Mfg. Co.
P.O. Box 569
Columbus, Nebraska 68602
1-800-447-2751
www.behlencountry.com

Bison Solar
(Owned by Panhandle Sales and Service - www.solarwellpumps.com)
Rt. 1 Box 53
Balko, OK 73931
1-580-646-0911
1-866-483-6851
www.bisonsolar.com

Cimarron County Conservation District
210 S Cimarron
Boise City, OK 73933-1086
(580) 544-2401

CropMetrics LLC
1111 County Road R
North Bend, NE 68649
(402) 512-1850
www.CropMetrics.com

Decagon Devices
2365 NE Hopkins Court
Pullman, WA 99163
1-800-755-2751
www.decagon.com

Direct Power and Water
4000 B Vassar Dr.
NE Albuquerque, NM 87107
1-800-260-3792
http://dpwsolar.com

Elster / Amco (Aquamaster)
P.O. Box 1852
Ocala, FL 34478-1852
Phone: 1-800-874-0890
www.amcowater.com

Fresno / Pierce
7736 East Springfield Avenue
P.O. Box 40
Selma, CA 93662
1-800-333-1658
www.fresnovalves.com

GNI Waterman LLC
P.O. Box 458
Exeter, CA 93221
1-800-331-0808
www.watermanusa.com

Grundfos
(see internet for local distributors)
www.grundfos.com/web/homeus.nsf

Hawkeye Steel Products, Inc.
P.O. Box 2000
Houghton, Iowa 52631
1-319-469-4141
www.hawkeyesteel.com

Hickenbottom Inc.
2074 Hemlock Ave.
Fairfield, IA 52556
1-800-443-7879
www.hickenbottominc.com

Ironridge (formally – Two Seas)
291Sell Lane
Willits, CA 95490
1-707-459-9523
www.ironridge.com

John Deere Field Connect
Your local John Deere dealer is the best resource for information about John Deere equipment.
www.deere.com

KBK Industries, Inc.
Rt. 2, Box 3 – East Hwy 96
Rush Center, KS 67575
1-785-372-4331

Lorentz
(see internet for local distributors)
www.lorentz.de

McCrometer, Inc.
3255 West Stetson Avenue
Hemet, CA 92545
Phone: 1-800-220-2279
www.mccrometer.com

Miraco
P.O. Box 686
Grinnell, Iowa 50112
1-641-236-5822
1-800-541-7866
www.miraco.com

North American Green
14649 Highway 41 North
Evansville, IN 47725
1-800-772-2040
www.nagreen.com

Norwesco Inc.
P. O. Box 439
4365 Steiner Street
St. Bonifacius, MN
55375-0439
Tel 800-328-3420
Fax 800-874-2371
www.NORWESCO.com

Nioex Systems Inc.
171 Waverly Dr.
Brandon, MB
R7B 4A4
507-381-1556
www.nioex.com

Pierce Corporation
(now owned by Fresno)
10 North Garfield Street
Eugene, OR 97402
1-541-485-3111
www.piercecorporation.com

Power Pipe and Tank, LLC
P.O. Box 31240
Amarillo, TX 79120
1-800-299-7418
www.powerpipeandtank.com

Rainbird
1-800-724-6247
www.rainbird.com

Ritchie Industries, Inc.
120 South Main
P.O. Box 730
Conrad, Iowa 50621
1-800-747-0222
www.ritchiefount.com

Scheib Drainage Products Inc.
203 S. Monroe
Oregon, Missouri 64473
1-800-279-3575
www.scheibdrainage.com

SeaMetrics, Inc. (Panhandle)
3836 US Highway 54
Dalhart, TX 79022
Phone: 1-806-333-2299
www.seametrics.com

SeaMetrics, Inc. (Rest of Oklahoma)
7301 NW Andrews
Lawton, OK 73505
Phone: 1-580-531-0312
www.seametrics.com

Sensus Metering Systems
Local Distributor:
National Waterworks, Inc.
8401 SW 15th Street
Oklahoma City, OK 73128
Phone: 1-405-495-0699
www.sensus.com

SunRotor
Local Distributor:
Solar Power and Pump Company
301 West 12th Street
Elk City, OK 73644
1-866-246-7652
www.togosolar.com

Si Precast Concrete Products
11919 Cartwright
Grandview, Missouri 64030
1-816-966-4683
1-888-262-7383
www.siprecast.com

Sparling Instruments, Inc.
4097 N. Temple City Blvd.
El Monte, CA 91731
Phone: 1-800-800-3569
www.sparlinginstruments.com

Stewart Concrete Products
2179 Hwy. 32
Halfway, Missouri 65663
1-417-445-2421

Travis Pattern and Foundry
Box 6325
Spokane, WA 99207
1-509-466-3545

Tri-Form Poly Inc.
Box 1029 – 132 Charles St E
Morris, MB R0G 1K0
204-746-6401
www.ecodrumcomposter.com

UniRac Inc.
1411 Broadway Boulevard
NE Albuquerque, NM 87102
1-505-242-6411
www.unirac.com

United Fiberglass, Inc.
P.O. Box 31628
Amarillo, TX 79120
1-800-487-4834

USA Tire Management Systems
4901 G Street
South Souix City, NE 68776
1-888-494-5620
www.usatireproducts.com

W & W Fiberglass Tank Company
Rt 1 Box 1A
Pampa, TX 79065
www.wwfrptank.com

Watermark
Trademark of Irrometer Company
1425 Palmyrita Ave.
Riverside, CA 92507
951-682-9505
www.irrometer.com

WaterScout
Trademark of Spectrum Technologies, Inc.
3600 Thayer Court
Aurora, IL 60504
Phone: 1-800-248-8873
www.specmeters.com

WebTec, Inc.
6509-C Northpark Blvd.
Charlotte, NC 28216
Phone: 1-800-438-0027
www.webtecgeos.com

Wildlife Water Guzzler, LLC
1003 Buffalo Trail
Canyon, TX 79015
1-806-655-1209
www.wildlifewaterguzzler.com

Zomeworks Corporation
1011 A Sawmill Road
Albuquerque, NM 87104
1-800-279-6342
http://zomeworks.com