



KATIE M. HOBBS
Governor

THOMAS BUSCHATZKE
Director

ARIZONA DEPARTMENT of WATER RESOURCES
1110 West Washington Street, Suite 310
Phoenix, Arizona 85007
602.771.8500
azwater.gov

Best Management Practices Program Application Form

Pursuant to section 4-505 “Best Management Practices Program” of the Fifth Management Plan (5MP), an owner of irrigation grandfathered rights (IGFRs), or any person entitled to use groundwater pursuant to those IGFRs may apply to be regulated under the Best Management Practices (BMP) Program by submitting this application no later than **January 1, 2027**. One application may be filed for multiple IGFRs, if the IGFRs are within the same irrigation district and are farmed by the same owner or any person entitled to use groundwater pursuant to those IGFRs. One application may be filed for multiple IGFRs within the same sub basin, if the IGFRs are not within an irrigation district and are farmed by the same owner or any person entitled to use groundwater pursuant to those IGFRs.

SECTION A – APPLICANT INFORMATION

Applicant’s Name			
Applicant Address			
Street Address	City	St	Zip
Phone Number			
Email Address			
Farm Unit Operator (if different than applicant):			
Operator Address			
Street Address	City	St	Zip

SECTION B – IGFR Information

IGFR Information (please fill out the following information for any IGFRs included in this Integrated Farm):		
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
58-_____.	<input type="checkbox"/> Owned <input type="checkbox"/> Leased	Current Flexibility Account Balance: _____
<p><i>Note: The Department will review the IGFR certificate numbers listed above to determine the current flexibility account balances. Each IGFR must be in compliance with the Department’s flexibility account provisions before it can be eligible for the BMP Program.</i></p> <p><i>Note: Existing flexibility account balances associated with each IGFR accepted into the program will be frozen for as long as the IGFR remains in the BMP program.</i></p>		
Name of Farm/Farm Unit (if applicable):		
AMA information		
AMA _____	Irrigation District or Sub-basin _____	
Farm Plan Map (please attach a copy of the farm plan map to this application):		
<p>The farm plan map must include the following:</p> <ul style="list-style-type: none"> • Location and boundaries of all IGFRs that will be enrolled in the program. • IGFR number on each IGFR in the map. • All existing improvements to the farm unit’s water conveyance system and farm irrigation system. <p><i>Note: The farm plan map must be included to be considered for the Best Management Practices Program.</i></p> <p>Please provide any further details regarding the farm plan map in Section J.</p>		

SECTION C – BMP WORKSHEET TOTALS

BMP Worksheet Instructions:

Complete and attach the BMP Worksheet to your application. When filling out the BMP Worksheet, please refer to the separate set of instructions for completing the worksheet.

Worksheet Total:

Enter the total point value calculated on the BMP Worksheet for the farm or farm unit: _____.

*If the total point value calculated on the BMP Worksheet is **less than 12 points**, the farm or farm unit is **not eligible** for enrollment in the BMP Program*

Category 1:

Enter the total point value calculated for Category 1 on the BMP Worksheet for the farm or farm unit: _____.

*If the point value calculated for Category 1 of the BMP Worksheet is **less than 3 points**, the farm or farm unit is **not eligible** for enrollment in the BMP Program*

Category 2:

Enter the total point value calculated for Category 2 on the BMP Worksheet for the farm or farm unit: _____.

*If the point value calculated for Category 2 of the BMP Worksheet is **less than 2 points**, the farm or farm unit is **not eligible** for enrollment in the BMP Program*

Category 3:

Enter the total point value calculated for Category 3 on the BMP Worksheet for the farm or farm unit: _____.

*If the point value calculated for Category 3 of the BMP Worksheet is **less than 2 points**, the farm or farm unit is **not eligible** for enrollment in the BMP Program*

Category 4:

Enter the total point value calculated for Category 4 on the BMP Worksheet for the farm or farm unit: _____.

*If the point value calculated for Category 4 of the BMP Worksheet is **less than 2 points**, the farm or farm unit is **not eligible** for enrollment in the BMP Program*

SECTION D- ADDITIONAL DECLARATIONS

Declaration from Owner Applicant:

I, _____ (owner's name), hereby declare that I agree to regulation under the Best Management Practices Program until the effective date of any future conservation program or until the legislature determines otherwise.

Signature: _____ Date: _____

**If the applicant is not the owner of the IGFRs included in this BMP and is the lessee, please sign and return the attached owner affidavit form for each IGFR included.*

**If any IGFRs applying for the Best Management Practices Program are currently being leased from the Arizona State Land Department, please sign, and return the attached State Land affidavit form.*

SECTION E – CRITERIA FOR APPROVAL ACKNOWLEDGMENT

I understand that my application will be approved if it is complete, correct, and if I am in compliance with all applicable agricultural conservation requirements, as per the criteria listed in the Best Management Practices Program.

SECTION F – BEST MANAGEMENT PRACTICES PROGRAM REQUIREMENTS ACKNOWLEDGMENT

I agree to comply with all program requirements, including implementing all selected BMPs or all selected BMPs in the BMP worksheet submitted, irrigation water duty, groundwater allotment, and any other provisions as established by the Director.

I agree to comply with all program requirements if a BMP has been replaced with a new BMP pursuant to subsection G of 4-505.

I agree to comply with the provision that the IGFR owner and any person entitled to use groundwater pursuant to that IGFR shall implement the new BMP in lieu of the replaced BMP.

SECTION G – REPLACEMENT OF AN EXISTING BMP WITH A NEW BMP AFTER ACCEPTANCE INTO THE BMP PROGRAM

Please provide a detailed description and demonstrate equivalent efficiency when replacing an existing BMP with a new BMP after acceptance into the BMP program:

SECTION H – NEW LESSEE APPLICATION REQUIREMENT (IF APPLICABLE)

I understand that a new lessee must apply for participation in the Best Management Practices Program before using water on the land.

SECTION I – DURATION OF REGULATION ACKNOWLEDGMENT

I acknowledge the conditions under which I will be regulated under the Best Management Practices Program.

SECTION J – REPORTING AND FLEXIBILITY ACCOUNT PROVISIONS

1. Flexibility Account Provisions Acknowledgment:

I understand the modifications to the flexibility account provisions under the Best Management Practices Program.

2. Reporting Requirements Acknowledgment:

I agree to submit all required information annually, as per the Director's requirements.

3. BMP Implementation Acknowledgment:

I agree to that all required BMPs have been implemented during the previous calendar year. I agree that the person submitting the form shall keep and maintain, for at least three calendar years following the filing of the form, current and accurate records verifying that the BMPs were implemented.

SECTION K – ADDITIONAL INFORMATION

Please provide any additional information here:

SECTION L - FINAL AGREEMENT

The individual or entity applying for entrance in the Best Management Practices Program must sign and date the application below. By signing this application, the applicant certifies that all the information provided is true and accurate to the best of his or her knowledge and belief, and that the applicant will comply with the requirements of the Best Management Practices Program as defined.

I certify that the information provided in this plan is true and correct to the best of my belief.

Name (Please Print)

Title

Signature

Date

PLEASE UPDATE THIS CONSERVATION PLAN TO REFLECT ANY CHANGES MADE AT THE FACILITY DURING THE MANAGEMENT PERIOD. IF YOU HAVE ANY QUESTIONS REGARDING THIS FORM, PLEASE CONTACT THE AMA AGRICULTURAL TEAM AT 602-771-8585

Please note: A.R.S. § 41-1030(B), (D), (E) and (F) provide as follows:

- B. An agency shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule or state tribal gaming compact. A general grant of authority in statute does not constitute a basis for imposing a licensing requirement or condition unless a rule is made pursuant to that general grant of authority that specifically authorizes the requirement or condition.
- D. This section may be enforced in a private civil action and relief may be awarded against the state. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against the state for a violation of this section.
- E. A state employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the agency’s adopted personnel policy.
- F. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

**AGRICULTURAL BEST MANAGEMENT PRACTICES
PROGRAM
5MP BMP WORKSHEET INSTRUCTIONS**

The BMP Worksheet is organized in 4 categories. Each category allows the accumulation of up to 4 points. To be eligible for entering the BMP program, the minimum value of 2 points required for Category 2 (Farm Irrigation Systems), Category 3 (Irrigation Water Management), and Category 4 (Agronomic Management). Category 1 (Water Conveyance System Improvements) requires a minimum value of 3 points to be eligible for entering the BMP program. A total value of 12 or more points is required to be eligible for enrollment in the BMP program.

BMP Category 1: Water Conveyance System Improvements

A farm’s water conveyance system allows water to be conveyed from an irrigation district delivery point or a wellhead for irrigation of each field. This category includes water conveyance system improvements that qualify as approved BMPs.

In the BMP Worksheet, Category 1 evaluates the condition of the water conveyance system that carries irrigation water from a district delivery point or wellhead to the farm field. Refer to the Water Conveyance System - Point Table below to determine point value in Category 1 for the farm or farm unit.

This category requires a minimum of three points to be eligible for enrollment in the BMP program. The maximum number of points allowed in this category is four.

Category 1: Water Conveyance System – Point Table	
Percentage of the farm’s total irrigated acreage served by the approved BMPs	Point Value
60-64	1.0
65-69	1.3
70-74	1.8
75-79	2.3
80-84	2.8
85-89	3.3
90-94	3.8
95-100	4.0

BMP Category 2: Farm Irrigation Systems

Farm irrigation systems are the methods by which a farm field is irrigated. Farm irrigation systems include slope, modified slope, level or near level, sprinkler, trickle or drip, or any combination thereof. This category includes farm irrigation systems that qualify as approved BMPs.

In the BMP Worksheet, Category 2 evaluates the type of irrigation system(s) currently employed on your farm. The percentage of irrigation system(s) used for this category cannot exceed 100 percent.

BMP Category 3: Irrigation Water Management (IWM)

Irrigation water management practices include management practices that, when implemented properly, will increase a farm’s overall efficiency of water application in a growing season. This category includes irrigation water management practices that qualify as approved BMPs.

In the BMP Worksheet, Category 3 evaluates the irrigation water management practices that will be implemented on-farm. The applicant must identify which of the approved BMPs will be implemented on an annual basis while enrolled in the program.

This category requires a minimum of two points to be eligible for enrollment in the BMP program. The maximum number of points allowed in this category is four.

BMP Category 4: Agronomic Management

Agronomic management practices include combinations of plant and soil management practices that, if implemented properly, will conserve water over the length of the growing season. This category includes agronomic management practices that qualify as approved BMPs.

In the BMP Worksheet, Category 4 evaluates the agronomic management practices that will be implemented on-farm.

This category requires a minimum of two points to be eligible for enrollment in the BMP program. The maximum number of points allowed in this category is four.

+++++

Note: Applicants may elect to exclude a portion or portions of an IGFR when enrolling in the BMP Program. The excluded portion will not count towards the calculation of irrigable acreage in Category 1 or the Farm Irrigation System percentage in Category 2. However, the excluded portion may not be irrigated so long as the IGFR is enrolled in the BMP Program. A farm map designating the excluded acreage must be submitted with the application.

+++++

AGRICULTURAL BEST MANAGEMENT PRACTICES PROGRAM
5MP BMP WORKSHEET

(Refer to the attached Instructions and 5MP Appendix 4B while completing this worksheet)

Name of Operator: _____ Date: _____ Phone Number: _____ Email Address: _____ _____	Date Received: <i>(for office use)</i>
--	--

Farm Name (if applicable): _____ BMP 88-Number: _____ Associated IGFR 58-Number(s): _____ _____			
Category 1: Water Conveyance System Improvements (Minimum Allowable Points = 3; Total Allowable Points = 4)			
<i>Enter the total percentage of irrigable acreage that is served by any combination of the following types of water conveyance systems: Approved BMPs are concrete (or equivalent) lined ditches, pipelines, drainback system, or other director approved substitute practice.</i>	Percentage of Farm Served by Conservation Practice	POINTS	
1a. Total Percentage:	%		
1b. Enter the BMP point value from the Water Conveyance System - Point Table (found under Category 1 BMP Worksheet Instructions and the 5MP Appendix 4B) for the total percentage entered on line 1a above.			
Category 2: Farm Irrigation Systems (Minimum Allowable Points = 2; Total Allowable Points = 4)			
<i>Enter the percentage of farm acres of each type of irrigation system on your farm and calculate the points accordingly. Total cannot exceed 100 percent.</i>	Percentage of Farm Served by Conservation Practice	POINTS	
Slope systems without uniform grades - 0 points	% X 0 =	0	
2.1 Slope systems without uniform grades with tailwater reuse - 0.5 points	% X 0.5 =		

2.2 Uniform slope systems without tailwater reuse - 0.5 point	%	X	0.5	=	
2.3 Uniform slope systems with tailwater reuse - 1.5 points	%	X	1.5	=	
2.4 Uniform slope systems within an irrigation district that captures and redistributes return flows - 1.5 points	%	X	1.5	=	
2.5 Modified slope systems - 2 points	%	X	2	=	
2.6 Uniform slope systems with polyacrylamide in applied irrigation, with either tailwater reuse or within an irrigation district that captures and redistributes return flows - 2 points	%	X	2	=	
2.7 High pressure sprinkler systems - 2 points	%	X	2	=	
2.8 Minimum qualifying low pressure sprinkler systems - 2 points	%	X	2	=	
2.9 Minimum-qualifying trickle irrigation systems - 2 points	%	X	2	=	
2.10 Near level systems – 3 points	%	X	3	=	
2.11 Level systems - 4 points	%	X	4	=	
2.12 Qualifying low pressure sprinkler systems - 4 points	%	X	4	=	
2.13 Qualifying Trickle irrigation systems - 4 points	%	X	4	=	
Substitute Practice: Farm Irrigation Systems - 1 to 4 points (May only be used with director approval)	%	X		=	
Enter the total point value from Category 2. Subtotal must be a minimum of 2 points and cannot exceed 4 points.	100%				
Category 3: Irrigation Water Management (IWM) (Minimum Allowable Points = 2; Total Allowable Points = 4)					
<i>Enter points based on the following IWM Practices used or to be implemented.</i>					POINTS
3.1 Laser or GPS touch-up - 1 point					
3.2 Low pressure sprinkler system annual maintenance - 1 point					
3.3 Trickle irrigation advanced maintenance drip tape or line replacement program - 1 point					
3.4 Alternate row irrigation - 1 point					
3.5 Furrow checks - 1 point					
3.6 Angled rows/Angled borders/contour farming - 1 point					
3.7 Surge irrigation - 1 point					
3.8 Temporary sprinklers - 1 point					
3.9 Participation in an educational irrigation water management program - 1 point					
3.10 Participation in an irrigation scheduling service - 1 point					
3.11 Participation in an irrigation district program to increase the flexibility of water deliveries - 1 point					
3.12 Measure flow rates to determine amount of water applied - 1 point					

3.11 Soil moisture monitoring - 1 point		
3.14 Computer based modeling using meteorological data - 1 point		
Substitute Practice: Irrigation Water Management - 1 point (May only be used with director approval)		
Enter the total point value from Category 3 Subtotal must be a minimum of 2 points and cannot exceed 4 points.	SUBTOTAL (Category 3)	
Category 4: Agronomic Management (Minimum Allowable Points = 2; Total Allowable Points = 4)		
<i>Enter points based on the following Agronomic Practices used or to be implemented.</i>		POINTS
4.1 Crop Rotation - 1 point		
4.2 Crop Residue Management - 1 point		
4.3 Soil and/or Water Quality Testing - 1 point		
4.4 Pre-Irrigation Surface Conditioning - 1 point		
4.5 Transplants - 1 point		
4.6 Mulching - 1 point		
4.7 Shaping Furrow or Bed - 1 point		
4.8 Planting in bottom of furrow, bed, or border - 1 point		
4.9 Chemical maintenance of trickle irrigation system - 1 point		
4.10 Use of polyacrylamide in applied irrigation - 1 point		
Substitute Practice: Agronomic Management - 1 point (May only be used with director approval)		
Enter the total point value from Category 3 Subtotal must be a minimum of 2 points and cannot exceed 4 points.	SUBTOTAL (Category 4)	
Add subtotals of Categories 1,2,3, & 4 and enter total points. Total points must equal 12 or greater to be eligible for the 5MP Best Management Practices Program.	TOTAL: (Categories 1,2,3, & 4)	

FIFTH MANAGEMENT PLAN APPENDIX 4B
BEST MANAGEMENT PRACTICES PROGRAM
SECTION I: APPROVED BEST MANAGEMENT PRACTICES & POINTS

<i>BMP CATEGORY 1. WATER CONVEYANCE SYSTEM IMPROVEMENTS</i>
<i>Description: A farm’s water conveyance system allows water to be conveyed from an irrigation district delivery point or a well head for irrigation of each field. This category includes water conveyance system improvements that qualify as approved BMPs.</i>
<i>Approved Water Conveyance Improvements</i>
<i>BMP 1.1 Lined ditch</i>
<i>Definition: A means of transporting water to farm fields via a well-maintained concrete-lined ditch (open channel) or a lining that performs at least equivalently to a well-maintained concrete lining in order to minimize transmission losses through seepage.</i>
<i>BMP 1.2 Pipelines</i>
<i>Definition: Any type of low or high-pressure pipeline (closed conduit) used to convey water to a farm field to reduce or eliminate water loss prior to the act of irrigation. Pipelines may be constructed of PVC, ABS, concrete, aluminum, and or steel.</i>
<i>BMP 1.3 Drainback system</i>
<i>Definition: Level irrigation system technology utilizing headland channel conveyance which is designed and maintained to “drain” excess water applications from one irrigated field to the next down gradient field.</i>
<i>Substitute Practice: Water Conveyance Improvements</i>
<i>A new or existing water conveyance improvement method not listed above that the Director determines will likely result in a reduction in transmission losses at least equivalent to the reduction in transmission losses that would result from the implementation of one of the approved improvements described in this category.</i>
<i>The Director may add an approved substitute practice to the list of Approved Best Management Practices, pursuant to the procedure set forth in Section II of this appendix. A copy of the most recent list of additional BMPs shall be posted on the ADWR’s website and shall be on file with ADWR.</i>
CATEGORY 1: POINT VALUE DETERMINATION
<i>An applicant for the BMP Program must select one or more of the water conveyance system improvement BMPs described above in the application for the BMP Program. A BMP may be selected only if it is being implemented on the farm at the time the application is filed. The total points for the BMP or BMPs selected in this category shall be calculated by estimating the percentage of the farm’s irrigated acreage served by the selected BMP or BMPs, and then determining the point value for that percentage in the Category 1: Water Conveyance System – Point Table below. For purposes of this determination, “irrigated acreage” means those acres within the farm that will be irrigated while the applicant is regulated under</i>

the BMP Program. If the applicant selects more than one BMP in this category, an acre shall not be counted twice in determining the total percentage of the farm's irrigated acreage served by the BMPs. In this category, the maximum number of points allowed is four and the minimum number is three.

CATEGORY 1: POINTS TABLE

<i>Percentage of Farm's total irrigated acreage served by the approved BMPs</i>	<i>Point Value</i>
60-64	1.0
65-69	1.3
70-74	1.8
75-79	2.3
80-84	2.8
85-89	3.3
90-94	3.8
95-100	4.0

BMP CATEGORY 2. FARM IRRIGATION SYSTEMS

Description: Farm irrigation systems are the methods by which a farm field is irrigated. Farm irrigation systems include slope, modified slope, level or near level, sprinkler, trickle or drip, or any combination thereof. This category includes farm irrigation systems that qualify as approved BMPs.

Approved Farm Irrigation Systems

BMP 2.1 Slope systems without uniform grades with tailwater reuse – (0.5 Point)

Definition: Sloped fields without uniform grades with a constructed recovery system that allows for the reuse of water that runs off the end of the field after an irrigation event.

BMP 2.2 Uniform slope systems without tailwater reuse – (0.5 Point)

Definition: Sloped fields that have been engineered to uniform grades with no means of reusing the water that runs off the end of the field after an irrigation event.

BMP 2.3 Uniform slope systems with tailwater reuse – (1.5 Points)

Definition: Sloped fields that have been engineered to uniform grades with a constructed recovery system that allows for the reuse of water that runs off the end of the field after an irrigation event.

BMP 2.4 Uniform slope within an irrigation district that captures and redistributes return flows – (1.5 Points)

Definition: Sloped fields that have been engineered to uniform grades enabling an irrigation district to collect the water that leaves a farm field after an irrigation event for distribution to another farm field.

BMP 2.5 Modified slope systems – (2 Points)

Definition: Sloped fields that have been engineered to uniform grades in the upper portion of the field, with the bottom portion generally having a field slope of 0.0 to 0.2 feet of total fall in the direction of irrigation. All irrigation water is retained on the field.

BMP 2.6 Uniform slope systems with polyacrylamide in applied irrigation, with either tailwater reuse or within an irrigation district that captures and redistributes return flows – (2 Points)

Definition: Sloped fields that have been engineered to uniform grades with either a constructed recovery system that allows for the reuse of water that runs off the end of the field after an irrigation event or within an irrigation district that collects the water that leaves a farm field after an irrigation event for distribution to another farm field. In addition, irrigation efficiency is improved by applying polyacrylamide to the irrigation water. This compound is a flocculating agent which removes suspended soil from the water and allows the soil to stay in place, reducing soil erosion in the furrow or border and improving the soil uptake of water.

BMP 2.7 High pressure sprinkler systems – (2 Points)

Definition: Side-roll, linear, center-pivot, and solid set designs that operate at nozzle water pressures of 10 pounds per square inch (psi) or more.

BMP 2.8 Minimum qualifying low pressure sprinkler systems – (2.0 Points)

Definition: Linear and center pivot sprinkler designs that operate at water pressures measured at the nozzle of no greater than 10 psi and possess any of the following conditions:

- 1. Field slopes beneath a sprinkler system that exceed 0.25 foot/100 feet fall along any bisecting line within a circle or in the direction of irrigation in a linear.*
- 2. Lack of a mainline factory water filtration system that minimizes sediment and particle blockage and wear in the sprinkler regulators.*
- 3. Lack of an automatic main water supply pump shut down system in the event of sprinkler forward travel failure.*

BMP 2.9 Minimum-qualifying trickle irrigation systems- (2.0 Points)

Definition: Pressurized drip or subsurface irrigation system that possess any of the following conditions:

- 1. A pressurized drip or subsurface irrigation system that delivers less than 90 percent of the original designed gallons per minute (GPM) and cannot be corrected in a way that is economically feasible.*
- 2. Lack of a system to visually or through pressure measurement check all lateral and other diversion values for leakage.*
- 3. Lack of organizational policies for management and labor that assure that all visible leaks in drip lines and related systems are repaired within 12 hours and to retain leaked water on the field.*

BMP 2.10 Near level systems – (3.0 Points)

Definition: Sloped fields that have been engineered to uniform grades between 0.031 to 0.06 foot per 100 feet of fall in the direction of irrigation over the entire length of the field. All irrigation water is retained on the field.

BMP 2.11 Level systems – (4 Points)

Definition: Level border or level furrow system where the field slope may vary from 0.0 to 0.03 foot per 100 feet of fall in the direction of irrigation over the entire length of the field. Either all irrigation water is retained on the field or a level drainback system is used.

BMP 2.12 Qualifying low pressure sprinkler systems – (4 Points)

Definition: Linear and center-pivot sprinkler designs that operate at water pressures measured at the nozzle of no greater than 10 psi with none of the conditions enumerated in BMP 2.7.

BMP 2.13 Qualifying Trickle irrigation systems – (4 Points)

Definition: Pressurized drip or subsurface irrigation capable of applying precise amounts of water to the crop root zone (also referred to as drip irrigation) with none of the conditions enumerated in BMP 2.8.

Substitute Practice: Farm Irrigation Systems – (1-4 Points)

Definition: A new or existing farm irrigation system definition, or, a different remedy for an existing BMP minimum qualifying condition not listed above that the Director determines will likely result in efficiency on the farm at least equivalent to the efficiency that would result from implementation of one of the approved BMPs described in this category.

The Director may add an approved substitute practice to the list of Approved Best Management Practices pursuant to the procedure set forth in Section II of this appendix. A copy of the most recent list of additional BMPs shall be posted on the ADWR’s website and shall be on file with ADWR.

CATEGORY 2: POINT VALUE DETERMINATION

An applicant for the BMP Program must select one or more of the farm irrigation systems BMPs described above in the application for the BMP Program. A BMP may be selected only if it is being implemented on the farm at the time the application is filed. The points for a BMP selected in this category shall be calculated by multiplying the points assigned to the BMP as shown above by the percentage of the farm’s irrigated acreage served by the irrigation system described in the BMP. For purposes of this determination, “irrigated acreage” means those acres within the farm that will be irrigated while the applicant is regulated under the BMP Program. If the applicant selects more than one BMP in this category, an acre shall not be counted twice in determining the total percentage of the farm’s irrigated acreage served by the BMPs. In this category, the maximum number of points allowed is four and the minimum number is two.

BMP CATEGORY 3. IRRIGATION WATER MANAGEMENT PRACTICES

Description: Irrigation water management practices include management practices that, when implemented properly, will increase a farm’s overall efficiency of water application in a growing season. This category includes irrigation water management practices that qualify as approved BMPs.

Approved Irrigation Water Management Practices

BMP 3.1 Laser or GPS touch-up – (1 Point)

Definition: Annual re-establishment of precision laser or GPS grades to ensure good advancement of applied irrigation water. Must be applied to a minimum of 20 percent of the near level and level basin acreage irrigated the prior year.

BMP 3.2 Low pressure sprinkler system annual maintenance – (1 Point)

Definition: Annual maintenance program on all individual sprinkler systems serving irrigated acreage within a BMP regulated irrigation right. This annual maintenance regime must be a dealer or factory specified broadly based inspection and replacement program performed by a dealer, qualified service agent, or by a BMP operator under the guidelines so specified.

BMP 3.3 Trickle irrigation advanced maintenance drip tape or line replacement program – (1 Point)

Definition: Drip Tape or Drip lines begin being replaced 10 years after installation on 20 percent of all irrigated acreage served by trickle irrigation within a BMP regulated irrigation right. Every year thereafter for another four years 20 percent more of all drip tape or drip lines is replaced. At the end of 15 years all original drip tape & lines have been replaced.

A BMP Program Participant implementing this BMP may apply to the Director to extend the replacement timelines in this BMP by providing flow test results demonstrating that the system delivers at least 90 percent of the original designed gallons per minute (GPM). The initial application for a timeline extension may be made no earlier than nine years after the initial installation of the drip tape or drip line. The Director may add up to two years to the replacement timeline, and the timeline may be extended multiple times.

BMP 3.4 Alternate row irrigation – (1 Point)

Definition: The practice of irrigating every other cultivated row during either single or multiple irrigation events to minimize the surface area of applied water. Annually, must be used on at least 20 percent of the acreage irrigated in row crops for at least one irrigation.

BMP 3.5 Furrow checks – (1 Point)

Definition: Manually applied or installed devices placed in rows to raise the water level in the row reducing the velocity to prevent erosion and enhance infiltration rates. Annually, must be used on at least 20 percent of irrigated acreage for at least one irrigation.

BMP 3.6 Angled rows/Angled borders/contour farming – (1 Point)

Definition: Annual practice of reducing row fall through row angling, border angling, and/or contouring to enhance water advancement and infiltration rates. This practice may also minimize or eliminate tailwater runoff. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 3.7 Surge irrigation – (1 Point)

Definition: The practice of applying irrigation water to a field by intermittent surges or pulses of water rather than by a continuous flow rate. The irrigation water advances down the field (or furrow), in stages, allowing uniform water penetration and avoiding tailwater runoff. A gradual sealing and soil conditioning occurs with each progressive surge allowing a more efficient water application. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 3.8 Temporary sprinklers – (1 Point)

Definition: Utilization of portable, roller and/or solid set sprinkler system for meeting pre-irrigation needs, seedling germination to establish a crop, and/or pre-harvest irrigation for maintaining crop quality. This practice reduces water use when compared to conventional flood irrigation techniques that require excessive water applications for seedling germination and/or crop quality. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 3.9 Participation in an educational irrigation water management program – (1 Point)

Definition: Enrollment in a private, governmental, or ADWR-sponsored educational irrigation water management program that includes irrigation water management topics such as soil water replacement needs, application rates, and irrigation scheduling. Must participate in such a program throughout the entire crop season annually.

BMP 3.10 Participation in an irrigation scheduling service – (1 Point)

Definition: Participation with a private or governmental consultant or ADWR-sponsored irrigation scheduling service that provides recommendations on soil moisture monitoring, soil water replacement needs, irrigation application rates, and irrigation scheduling dates based on soil moisture monitoring or real-time evapotranspiration data. Must participate in such a program throughout the entire crop season annually.

BMP 3.11 Participation in an irrigation district program to increase the flexibility of water deliveries – (1 Point)

Definition: Enrollment in a cooperative program set up by the irrigation district to assist a farmer with timely irrigation deliveries and shut off, constant flow rates, and other water order guidelines developed by the irrigation district. Must participate in such a program throughout the entire crop season annually.

BMP 3.12 Measure flow rates to determine the amount of water applied – (1 Point)

Definition: Measure flow rates to determine the amount of water applied for each irrigation event on each field for the purpose of achieving good application efficiencies.

BMP 3.13 Soil moisture monitoring – (1 Point)

Definition: Use of a number of accepted methods to monitor/measure soil moisture for the purpose of determining soil water replacement needs, application rates, and irrigation scheduling on each field (accepted methods may include core sampling, resistance blocks, neutron probe, tensiometers) throughout the entire crop season.

BMP 3.14 Computer based modeling using meteorological data – (1 Point)

Definition: Use of a computer-based irrigation scheduling program that incorporates real-time meteorological data (e.g. AZMET or other qualified services) for the purpose of determining irrigation event schedules on each field throughout the entire crop season.

Substitute Practice: Irrigation Water Management – (1 Point)

Definition: A new or existing irrigation water management practice not listed above that the Director determines will likely result in water savings or efficiency on the farm at least equivalent to the water savings or efficiency that would result from implementation of one of the approved BMPs described in this category.

The Director may add an approved substitute practice to the list of Approved Best Management Practices pursuant to the procedure set forth in Section II of this appendix. A copy of the most recent list of additional BMPs shall be posted on the ADWR's website and shall be on file with ADWR.

CATEGORY 3: POINT VALUE DETERMINATION

An applicant for the BMP Program must select one or more of the irrigation water management BMPs described above in the application for the BMP Program. A BMP may be selected only if it will be implemented on an annual basis while the applicant is regulated under the BMP Program. In this category, the maximum number of points allowed is four and the minimum number is two.

BMP CATEGORY 4. AGRONOMIC MANAGEMENT PRACTICES

Description: Agronomic management practices include combinations of plant and soil management practices that, if implemented properly, will conserve water over the length of the growing season. This category includes agronomic management practices that qualify as approved BMPs.

Approved Agronomic Management Practices

BMP 4.1 Crop rotation – (1 Point)

Definition: Periodic rotation of crop types on a given farm field to ensure the non-degradation of soil tilth. Annually, at least 20 percent of the acreage irrigated the prior year needs to be rotated to a different crop.

BMP 4.2 Crop residue management – (1 Point)

Definition: Crop residue should be left on the soil surface or incorporated to a shallow depth into the soil profile to increase soil nutrients, soil water holding capacities, and increase the available soil moisture to a crop. Annually, must be employed on at least 20 percent of the total irrigated acreage.

BMP 4.3 Soil and water quality testing – (1 Point)

Definition: Annual soil testing to determine: 1) residual amounts of fertilizer, 2) soil salinity for leaching needs, and 3) water intake rates and water holding capacity. Soil testing is required on at least 50 percent of the irrigated acreage. Water quality testing for needs such as estimating leaching requirements or avoiding potential injury to crops. Testing must include a "blend" analysis of irrigation water used from all sources.

BMP 4.4 Pre-irrigation surface conditioning – (1 Point)

Definition: Mechanical means (i.e. driving rows, soil torpedoes, etc.) by which rows or borders are prepared prior to an initial irrigation to smooth flow of water to avoid unwanted deep percolation during dry conditions or to enhance water advancement rates. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.5 Transplants – (1 Point)

Definition: Use of established seedlings transplanted into a field. This practice eliminates excessive applications of water to germinate crops in the field from seeds. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.6 Mulching – (1 Point)

Definition: Use of organic matter (apart from or in addition to crop residues) or plastic sheets to cover plant beds (plastic mulch) and/or use of plastic material laid over hoops suspended above the plant beds (floatable row covers) to reduce evaporation losses. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.7 Shaping furrow or bed – (1 Point)

Definition: Use of mechanical means such as a row former to make the bed profile shallower to minimize time of infiltration and minimize the wetted surface area along the rows. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.8 Planting in bottom of furrow, bed, or border – (1 Point)

Definition: Practice of planting in the bottom of the furrow, bed, or border as opposed to planting along the top of formed irrigation rows and beds to minimize impacts of salt build up and wetting (subbing) requirements for germination. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.9 Chemical maintenance of trickle irrigation system – (1 Point)

Definition: Chemical usage in a trickle irrigation system to control or eliminate calcification and/or organic growth in the system. Annually, must be used on at least 20 percent of irrigated acreage.

BMP 4.10 Use of polyacrylamide in applied irrigation – (1 Point)

Definition: Improving irrigation efficiency by applying polyacrylamide to the irrigation water. This compound is a flocculating agent which removes suspended soil from the water and allows the soil to stay in place, reducing soil erosion in the furrow or border and improving the soil uptake of water.

Substitute Practice: Agronomic Management (1 Point)

Definition: A new or existing agronomic management practice not listed above that the Director determines will likely result in water savings or efficiency on the farm at least equivalent to the water savings or efficiency that would result from implementation of one of the approved BMPs described in this category.

The Director may add an approved substitute practice to the list of Approved Best Management Practices pursuant to the procedure set forth in Section II of this appendix. A copy of the most recent list of additional BMPs shall be posted on the ADWR's website and shall be on file with ADWR.

CATEGORY 4: POINT VALUE DETERMINATION

An applicant for the BMP Program must select one or more of the agronomic management BMPs described above in the application for the BMP Program. A BMP may be selected only if it will be implemented on an annual basis while the applicant is regulated under the BMP Program. In this category, the maximum number of points allowed is four and the minimum number is two.

FIFTH MANAGEMENT PLAN APPENDIX 4B

BEST MANAGEMENT PRACTICES PROGRAM

SECTION II: PROCEDURE FOR ADDING A BEST MANAGEMENT PRACTICE TO THE LIST OF APPROVED BEST MANAGEMENT PRACTICES

An applicant for or participant in the Best Management Practices Program may apply to the Director to implement a Substitute Practice, as described in each BMP Category in Section I of this appendix. Upon receipt of an application, the Director shall review the application and may request additional information from the applicant. The Director may seek information from other sources, such as the Agricultural Water Conservation Best Management Practices Advisory Committee, as deemed necessary to determine if the Substitute Practice should be approved.

If the Director approves the application for a Substitute Practice, the Director may add the substitute practice to the list of Approved Best Management Practices set forth in Section I of this appendix by posting the modified list of Approved Best Management Practices on ADWR's web site and filing the modified list within ADWR's active management area office.

**AFFIDAVIT OF IGFR OWNER AGREEING TO REGULATION UNDER
BEST MANAGEMENT PRACTICES PROGRAM OF 5MP**

INSTRUCTIONS

1. Complete form (type or print in ink), sign and have signature notarized.
2. Affidavit must be signed by the current owner of the IGFR or a person authorized to sign on the owner's behalf. If affidavit is signed by a person other than the IGFR owner, ADWR may require written evidence of authority to sign on the owner's behalf. If there are multiple owners, each owner must complete a separate affidavit.

STATE OF _____)
) ss.
COUNTY OF _____)

I, _____, the undersigned, being first duly sworn on oath, depose and state as follows:

1. Certificate of Irrigation Grandfathered Right No. 58- _____ ("IGFR") is owned as follows: (check one):
___ By me (in my name only or with one or more other persons).
___ By _____ (name of IGFR owner) and I have authority to sign this affidavit on behalf of the IGFR owner.
2. The IGFR is currently being leased to _____ ("Lessee").
3. The IGFR owner agrees that Lessee may apply to the Arizona Department of Water Resources ("ADWR") for regulation under the Best Management Practices ("BMP") Program of the 5th Management Plan ("5MP") with respect to the IGFR. The IGFR owner understands that if the application is approved by ADWR, the land to which the IGFR is appurtenant will be enrolled in the BMP Program and the IGFR owner and lessee will be regulated under the BMP Program as provided in section 4-505 of the 5MP until the effective date of the agricultural conservation requirements in any new Management Plan. The IGFR owner also understands that the balance in the IGFR's flex account will remain unchanged while the land is enrolled in the BMP Program (credits and debits will not be registered to the account and credits may not be transferred to or from the account).

Signature

Title (if applicable)

Subscribed and sworn to before me, this ____ day of _____, 202__
by _____.

Notary Public

SEAL

My Commission Expires

