Harshberger Farms

Water Conservation Area Management Plan

Water Conservation Area Executive Summary

WCA Acres: 160 acres – Participating in a Water Technology Farm (2018-2020)
Number of IRR Water Rights: 1  
Number of IRR Wells: 1
Historical Period: 2003-2012

WCA Allocation:
- Total WCA allocation of 542.7 AF for period of WCA (180.9 AF/Yr)
- 10% conservation from the 2003-2012 average use

Corrective Controls- Limiting quantity per year:
- No point of diversion may exceed its annual authorized quantity in any calendar year
- No point of diversion may exceed its annual authorized pumping rate in any calendar year
- Potential carryover of 1 year’s WCA allocation with a subsequent WCA upon review and approval

Total water conserved over WCA period (based on historical use): 60.3 AF

NOTE: Provided by KS Dept of Agriculture – Division of Water Resources
Initial consultations with KDA-DWR began in January 2018
MANAGEMENT PLAN
For the Designation of a Water Conservation Area (WCA)
Harshberger Farms WCA; Ford County, KS
January 2018 through December 2020

In order to conserve and extend the productive life of the aquifer in our region and increase the value and viability of our water rights and water resources for future generations we, the undersigned water right owners propose the following management plan, pursuant to K.S.A. 82a-745 (WCA Law), to form the basis of a Consent Agreement and Order Designating a Water Conservation Area (WCA).

Expression of Conservation Goals
The goals of this WCA are to maintain production while enhancing profitability per acre-foot of water pumped, to examine and change current conservation practices as necessary, and to reduce water use over the term of the WCA from long-term averages. We, the water right owners, enrolling in a consent agreement under the terms and conditions of this WCA management plan will work towards these goals by exercising more flexible and efficient use of the water resource.

We, the water right owners are consenting to the terms and conditions of this WCA and commit to reducing water use for three (3) years, through a 10% reduction off the annual historic average use of all irrigation water rights enrolled in this WCA.

Water Technology Farm
As a compliment to the implementation of this WCA, we are planning on participating in a Water Technology Farm. An action item in the Kansas Water Vision calls for the development of Water Technology Farms at locations throughout the Ogallala by working in concert with irrigation technology manufacturers and the irrigation research community. The Kansas Water Vision also calls for the state to work with equipment manufacturers and dealers in public-private partnerships to provide the equipment necessary to participating landowners and operators. The Harshberger Farms proposed Water Technology Farm involves one field under center pivot irrigation. The proposal will consist of soil probes, Dragon Line, telemetry, and water scheduling. The conservation potential from the irrigation technology and management changes will be documented.

Water Rights Enrolled and Geographic Boundaries
This WCA shall include the water rights listed in the attached document. This list includes details of all points of diversion associated with those water rights; as well as legal descriptions of the locations of the points of diversion and/or identification numbers.

The current total appropriations authorized for all water rights included in this WCA are 320 acre-feet (AF) per year, with an average annual use during the period 2003-2012 of 201 acre-feet AF. With a 10% reduction from the historical annual average use, the three-year WCA allocation is 542.7 AF.
The geographic boundary for this WCA is shown on the attached map(s) and attached table defined by legal locations. This table includes total acres and legal definitions by section, township, and range of the WCA boundary.

**Findings Regarding Groundwater Conditions**

We understand that the WCA Law requires a finding that one of the following circumstances be present within the area geographic boundaries of this WCA, specified in K.S.A. 82a-1036 (a) through (d):

a) Groundwater levels in the area in question are declining or have declined excessively;  
b) The rate of withdrawal of groundwater in the area equals or exceeds the rate of recharge within such area;  
c) Preventable waste of water is occurring or may occur within the area in question; or  
d) Unreasonable deterioration of the quality of water is occurring or may occur within the area in question

and amendments thereto, exist, or include a finding or findings that the area within the geographic boundaries described in paragraph (1) has been closed to new appropriations by rule, regulation or order of the Chief Engineer.

We have been informed that the following conditions exist:

a) Groundwater levels in the area in question are declining or have declined excessively;  
b) The rate of withdrawal of groundwater in the area equals or exceeds the rate of recharge within such area;

These conditions suggest the advisability of implementing this WCA.

See the attached maps and figures supporting these findings and observations. Such attached documents may include:

- Map with WCA geographic boundaries defined- Attachment A & B  
- Detailed table with description of WCA geographic boundaries- Attachment C  
- Summary of water rights with description of legal locations- Attachment D  
- KGS Observation well(s) data (if applicable) - Attachment E

Per the Corrective Control Provisions and Plan for Conservation section, under this WCA management plan no water right, or point of diversion, is allowed any additional authorities than is currently authorized in the base water right. Therefore, it is determined that no further analysis, to determine possible impairments, needs to be completed for this WCA.
Due Consideration for Past Conservation

We acknowledge that as described in the law, a water conservation area (WCA) management plan shall give due consideration to water users who have previously implemented reductions in water use resulting from voluntary conservation measures.

We, the water right owners, are committed to best water management practices and do not require any specific consideration of past water conservation in determining these allocations with the aim of, the conservation of the Ogallala aquifer and to preserve the viability of irrigated agriculture. As enumerated below we, the owners, request that its further conservation under this plan be considered in any LEMA proposed for the area or in a subsequent WCA under the terms herein.

Corrective Control Provisions and Plan for Conservation

We acknowledge that the following corrective controls will be in effect within this WCA during the term of the WCA period listed:

1. Water rights, at the discretion of the owners, may be pumped as directed by the owner, provided that:
   a) All points of diversion are limited to their annual authorized quantity.
   b) All points of diversion are limited to their current authorized pumping rates.
   c) The sum of water use under all water rights combined shall be limited to no more than 542.7 acre-feet every three (3) years.
   d) The total water use shall not exceed the total annual authorized aggregate quantity in any calendar year.

2. The corrective control provisions of this WCA cannot conflict with the rules and regulations of the local GMD that result in greater overall conservation of water resources. If a Local Enhanced Management Area (LEMA) plan or an Intensive Groundwater Use Control Area (IGUCA) is formed after the initiation of this WCA, and the WCA is partially or wholly within the LEMA or IGUCA, the corrective control provisions that result in the greater overall conservation of water resources based on inches per acre and not based on percent reduction of average historical use shall prevail. However, any LEMA or IGUCA must give due consideration to the conservation achieved by WCA participants pursuant to 82a-745(a)(6). The Chief Engineer is authorized to amend the provision of the WCA to conform to any rules, regulations, or requirements that result in greater conservation of the water resource subject to the foregoing due consideration for past and current conservation.

We, the water right owners enrolling in this WCA understand we may gain the following additional incentive(s) in consideration for our WCA participation.

3. Up to the annual WCA allocation 180.9 AF may be carried over and added to a subsequent WCA period after 2020; if unused during the duration of this WCA period. In order for the carryover quantity to be included, all owners must enter into agreement to participate into a subsequent WCA by December 31st of the last year of this WCA period. Upon review, should a subsequent WCA be entered, the potential carryover will not allow any well to exceed its annual authorized quantity or the agreed upon corrective controls.
Compliance Monitoring and Enforcement

We, the owners, understand that the following compliance monitoring and enforcement provisions are proposed. This section also includes any specific provisions regarding measuring or reporting water usage.

There is one (1) recognized observation well(s) within one (1) mile of this WCA boundary that has for many years been measured annually by the Kansas Geological Survey (KGS). See attached maps for locations. The well(s) will continue to be measured annually and the data collected will help in evaluating the effectiveness of the WCA. An onsite observation well may be necessary to monitor the local water level more accurately.

We will submit an annual report no later than March 1st and maintain a spreadsheet detailing the following information for each well and all wells combined: beginning and ending meter readings, quantity of water diverted, acres irrigated, the inches per acre, and the quantity of water remaining for the WCA period listed. These records will be available to KDA-DWR upon request.

We will ensure backup measurements will be supported or an alternate measurement device will be available to be put into service in case the water flowmeter record for any given well is questionable or not reliable.

We acknowledge that water flowmeters within the WCA will be sealed to the measurement chamber by KDA-DWR during the duration of this management plan to ensure an accurate water use record.

We, water right owners within this WCA shall be responsible for ensuring the water flowmeters comply with state and local law(s). Any water right owner or authorized designee who finds a flow meter that is inoperable or inaccurate shall within 48 hours contact the KDA-DWR concerning the matter. Whenever an inoperable or inaccurate meter is repaired or replaced, the owner or authorized designee shall notify the KDA-DWR within seven (7) days on a form prescribed by the Chief Engineer of the water flowmeter installation and any water flowmeter repair or replacement event.

We acknowledge that failure to abide by the terms of this agreement may result in the termination of the WCA. Failure to abide by the terms, conditions, and limitations of the individual water rights will be subject to the civil penalties outlined in K.A.R. 5-14-10 and K.A.R. 5-14-12.

Review of Effectiveness

We acknowledge that a review of this WCA shall be completed prior to November 1st of the final year of the WCA period listed to ensure the above terms remain appropriate and are achieving the stated goals of this WCA. Should the Chief Engineer find that the terms are no longer appropriate or that no progress has been made towards the stated goal, the Chief Engineer may refuse to renew a WCA and may suggest new terms and goals. We understand that upon review, and a finding by the Chief Engineer that the WCA has achieved or made progress towards its goals and that the same terms be included in a subsequent WCA for another designated period. The terms of the WCA may be continued as long as this WCA is in good standing with its most recent WCA period and upon formal approval by the Chief Engineer. The Chief Engineer shall issue findings addressing the terms and goals of the existing management plan prior to any renewal of a subsequent WCA.
We acknowledge that unless terminated under the provisions below (e.g. due to the development of a LEMA), the WCA will be in effect for the listed period with an evaluation at the end of every WCA period. We understand that KDA-DWR will conduct this evaluation to ensure compliance and conservation. The evaluation will determine total water use during the WCA period.

We acknowledge that should an order of designation for a LEMA be implemented prior to end of this WCA period, an evaluation of this WCA will be conducted the year prior to the start of a LEMA. This evaluation may be used to determine an additional allocation amount of water to be carried over into a LEMA; should this be the case.

Member addition, withdrawal, and removal
We acknowledge that the water right owners and their associated water right(s) and geographic boundaries may be added to the WCA upon written notification to the Chief Engineer by the owners of each enrolling water right with legal descriptions of the areas to be added. A member may withdraw from the WCA through written notification to the Chief Engineer signed by the owners of the participating water right or rights to be withdrawn from the WCA.

If the addition or withdrawal of water rights requires modification to the water allocation quantities, geographic boundaries, places of use, terms, or conditions of the original WCA, the management plan shall be revised to incorporate such changes and the associated consent agreement shall be reaffirmed by all parties, after opportunity for comment on the proposed revisions by the applicable GMD.

Termination
We acknowledge this WCA agreement may be terminated by written notification, signed by all then-existing members of the WCA, to the Chief Engineer of the intent to terminate.

We also acknowledge that the Chief Engineer may terminate this WCA upon findings that it is not being upheld to its terms. Such termination shall give notice and require a full evaluation of the WCA and water rights associated to ensure follow up actions.

State Law
We acknowledge that this WCA is subject to compliance with all other applicable state laws.

Notification to Nearby Owners
We acknowledge that, by statute, the Chief Engineer is required to provide written notification to all water right owners with a point of diversion within 1/2 of a mile, or farther if deemed necessary, by a rule and regulation of the Chief Engineer, of the geographic boundaries of this WCA.

Assurances
We acknowledge this WCA will not alter the terms, conditions, and limitations of the base water rights.
Review of Other Applicable Requirements
We acknowledge that upon review, this WCA management plan was found to effect equal or greater overall conservation than applicable GMD regulations, LEMA, and IGUCA requirements.

Participant’s Agreement
By signing below, we, the water right owners, agree that this management plan is fair and equitable. This management plan, provided to the Chief Engineer and water right owners, is the expressed written intent of the parties and the whole agreement between the parties. We, the water right owners agree to be bound by all the terms contained in this management plan and understand that the provisions of this agreement shall be construed to give effect to the provisions listed. We, the water right owners also agree that this management plan is the basis for a consent agreement among the Chief Engineer and the undersigned water right owners, and therefore any order and consent agreement issued by the Chief Engineer, designating this WCA, shall be binding upon all parties as the necessary formal implementation of this management plan.

FOR THE PARTICIPANTS: All participating water right owner(s) signing below, affirm their approval of this WCA management plan and if approved by the Chief Engineer allow consent to the Chief Engineer to formally approve the designation of this Water Conservation Area, described herein, by means of a Consent Agreement and Order.

Date: 8-22-18
Gary Kenneth Harshberger- Owner (Signature)
Water Right No(s). 12,709
10905 Wildfire Rd Minneola, KS 67865
Full Mailing Address

gary@hawkcreek1.com 620-338-0888
Email Address Phone Number

ACKNOWLEDGMENT OF NOTARY

State of Kansas ) ) SS
County of Riley ) ) SS
Acknowledged before me on 8/22/18
by Gary Harshberger
Signature: Karen Wile
Notary Public

My commission expires: 2018

KAREN HUNTER
My Appointment Expires October 21, 2018
WATER RESOURCES RECEIVED
AUG 22 2018
Harshberger Farms WCA Management Plan
KS DEPT OF AGRICULTURE
CERTIFICATE OF SERVICE
I hereby certify that on this____ day of__________, ____ copies of the foregoing were sent via first class, U.S. mail, to the following:

GARY KENNETH HARSHBERGER
10905 WILDFIRE RD
MINNEOLA, KS 67865

Kansas Department of Agriculture
Staff Person
Attachment A: Map with WCA geographic boundaries defined
Attachment B: Map with WCA geographic boundaries defined
Attachment D: Summary of water rights with description of legal locations

**Harshberger Farms WCA Summary**

"Legal Ave Water Use" - A historical average calculated only using water use reports of equal or less than the annual authorized quantity.

<table>
<thead>
<tr>
<th>WR #</th>
<th>ID#</th>
<th>PDIV#</th>
<th>Location</th>
<th>Historical</th>
<th>2018 Annual</th>
<th>Legal Ave</th>
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</thead>
<tbody>
<tr>
<td>12709</td>
<td>1</td>
<td>26625</td>
<td>23-275-25W</td>
<td>03-12</td>
<td>320.000</td>
<td>201.000</td>
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</table>

**Historical Use Summary**

<table>
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<tr>
<th>WR#</th>
<th>ID#</th>
<th>PDIV#</th>
<th>Location</th>
<th>Historical</th>
<th>2018 Annual</th>
<th>Legal Ave</th>
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<tbody>
<tr>
<td>12709</td>
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<td>23-275-25W</td>
<td>03-12</td>
<td>320.000</td>
<td>201.000</td>
</tr>
</tbody>
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**Annual Historic Use VS. Annual WCA Allocation**

- **Annual WCA Allocation**
- **Annual Historic Use**

**Recent Water Use Reports**

<table>
<thead>
<tr>
<th>Year</th>
<th>Use</th>
<th>% of Auth</th>
<th>Acres</th>
<th>AF</th>
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<tbody>
<tr>
<td>2015</td>
<td>159.623</td>
<td>50%</td>
<td>116.936</td>
<td>156.00</td>
</tr>
<tr>
<td>2016</td>
<td>116.936</td>
<td>37%</td>
<td>156.000</td>
<td>125.00</td>
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<tr>
<td>2017</td>
<td>156.000</td>
<td>49%</td>
<td>N/A</td>
<td>N/A</td>
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</table>

**Annual WCA Allocation (10% Conservation)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual WCA Allocation</th>
<th>Reduction from Ave Use</th>
<th>% of Authorized</th>
<th>Est. Acre-Inch (2017 Acres)</th>
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<tbody>
<tr>
<td>Totals</td>
<td>180.900</td>
<td>20.100</td>
<td>57%</td>
<td>17.37</td>
</tr>
</tbody>
</table>

**WATER RESOURCES RECEIVED**

**AUG 22 2010**

Harshberger Farms WCA Management Plan

**KS DEPT OF AGRICULTURE**
Attachment E: KGS Observation well(s) data

**General Well Site Information**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
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<tbody>
<tr>
<td>USGS ID:</td>
<td>374040100004601</td>
</tr>
<tr>
<td>County:</td>
<td>Ford</td>
</tr>
<tr>
<td>HUC 8 Code:</td>
<td>11030004</td>
</tr>
<tr>
<td>Longitude:</td>
<td>-100.013112</td>
</tr>
<tr>
<td>Latitude:</td>
<td>37.677941</td>
</tr>
<tr>
<td>Surface Elevation (ft):</td>
<td>2574</td>
</tr>
<tr>
<td>Geological Unit Codes:</td>
<td>TO</td>
</tr>
<tr>
<td>KGS Local Well ID:</td>
<td>27S 25W 25BBB 01</td>
</tr>
<tr>
<td>PLSS Description:</td>
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</tr>
<tr>
<td>GMD:</td>
<td>Southwest Kansas GMD #3</td>
</tr>
<tr>
<td>Lat/Long Source:</td>
<td>GPS (within 50 feet)</td>
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<tr>
<td>Lat/Long Accuracy:</td>
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<tr>
<td>Depth of Well (ft):</td>
<td>170</td>
</tr>
<tr>
<td>USGS Map Name:</td>
<td>SOUTH DODGE</td>
</tr>
</tbody>
</table>

**Water Level Measurements**

Note that depth to water is feet below land surface and all measurements for the well are included.

![Hydrograph - Annual Average Depth to Water Below Land Surface](image)

**WATER RESOURCES RECEIVED**

Harshberger Farms WCA Management Plan

**KS DEPT OF AGRICULTURE**