



WEST DES MOINES WATER WORK BOARD OF TRUSTEES MEETING COMMUNICATION

ITEM:**DATE:** November 20, 2017**6. Recommendations from Committees****b. Regionalization****1. Motion**

– Authorizing General Manager to Submit
Application for Water Use Permit Modification

FINANCIAL IMPACT:

\$350.00 non-refundable application fee.

SUMMARY:

West Des Moines Water Works currently holds a water allocation permit from the Iowa Department of Natural Resources (IDNR) which allows raw water withdrawals from multiple Jordan and alluvial aquifer wells. Increase in quantity or change in the source or location of water withdrawals requires the modification of our existing permit. Test well construction and pumping is currently underway to determine the productivity of the alluvial aquifer north of the Raccoon River and east of the city of Van Meter. Authorizing submission of a permit application allows the General Manager to initiate the permitting process for use of the source water if the technical data suggests the aquifer in the area is sufficiently productive.

BACKGROUND:

West Des Moines Water Works has partnered with the City of Waukee to investigate the feasibility of a joint water production facility. A critical part of determining feasibility is the availability of adequate source water quantity to serve both communities. Layne Christensen and Veenstra & Kimm, Inc. are currently performing a 72-hour test pump of the alluvial formation, which is required by IDNR as part of the permitting process. If the investigation shows the location would support a proposed municipal water wellfield, it will be necessary to obtain rights to the source water through a Water Allocation Permit granted by the IDNR.

RECOMMENDED ACTION BY THE BOARD OF TRUSTEES:

To concur with the Recommendation of the Regionalization Committee and authorize the General Manager to submit an application for Water Use Permit Modification to the Iowa Department of Natural Resources.

Prepared by: _____

Approved for Content by: _____



Water Use Permit Application

CASHIER'S USE ONLY
0975-542-WATR-PA-0570
38-3802
NAME

Any use of water in excess of 25,000 gallons per day requires a water use permit.

For example, 25,000 gallons per day translates roughly into 20 gallons per minute for 24 hours, or 60 gallons per minute for an 8-hour day, etc.

Consider creating an account at <https://programs.iowadnr.gov/wateruse/> where you may apply for any type of water use permit, manage it, pay any applicable fees, and report - all online.

☐ \$350.00 I wish to apply for a NEW water use permit. Fee is non-refundable.

OR

☐ \$350.00 I wish to MODIFY an existing water use permit – to add a new source and/ or increase the amount/rate of water withdrawn/diverted from a source.

My existing permit number is _____ Fee is non-refundable.

OR

☐ No fee due I wish to MODIFY an existing water use permit; however, water will **not** be withdrawn from a new source and the amount/rate of water withdrawn/diverted will **not** increase.

My existing permit number is _____

PAY BY CHECK or MONEY ORDER

Make check payable to
Iowa Department of Natural Resources
Mail invoice and fee to
DNR Water Supply Engineering Section
502 E 9th St
Des Moines IA 50319-0034

PAY BY CREDIT CARD

DNR accepts Visa, Master Card and Discover
To make arrangements, call

Charlotte Lafargue Henderson
at 515-725-0341
wateruse@dnr.iowa.gov

PRINT CLEARLY OR TYPE	Who will be the Permit Holder? <ul style="list-style-type: none">• reports water use• receives all other correspondence	Who is the current Property Owner?	Authorized Representative (optional)
Choose only one →	Does this contact pay the annual fee? <input type="checkbox"/> Yes <input type="checkbox"/> No	Does this contact pay the annual fee? <input type="checkbox"/> Yes <input type="checkbox"/> No	Does this contact pay the annual fee? <input type="checkbox"/> Yes <input type="checkbox"/> No
Business Name			
First name			
Last name			
Address 1			
Address 2			
City			
State			
Zip			
E-mail			
Primary Phone			
Secondary phone			
Tertiary phone			
Fax number			

DO NOT complete the entire form.

Read the instructions carefully, and then complete only those sections that are indicated in Section A for the type of water use permit that you need or the existing permit that you wish to modify. After you have completed the appropriate sections, fill out and sign the **Certification** at the end of the application. Submit this application, the corresponding map (if applicable, as required in Item 5), and the appropriate fee to:

SECTION A: Type of Water Use Permit Needed

Select category 1, 2, or 3 below, to indicate which type of water use permit you need, or already have and wish to modify. Then complete all sections of the application as directed.

NOTE: You may need to select more than one of the following uses if you plan to use water for multiple purposes in categories 1, 2, and/or 3. For example, a golf course that uses water for a drinking water supply and also for irrigation would check both categories 1 and 2, and then complete all of the sections indicated for those categories. If a specific question/item does not apply to your situation, enter NA (not applicable).

1. ☐ If you plan to withdraw water for MUNICIPAL, INDUSTRIAL, COMMERCIAL, or RECREATIONAL uses, check this box and complete only the relevant portions of Sections B and C.
2. ☐ If you plan to withdraw water for IRRIGATION of crops, golf courses, etc., check this box and complete only the relevant portions of Sections B and D.
3. ☐ If you plan to withdraw water for PRODUCTION OF SAND, GRAVEL, or ROCK MATERIALS, check this box and complete only the relevant portions of Sections B and E.

If you are requesting to modify your existing permit, please specify what you would like to do:

Fee Required

- ☐ Add a water source
- ☐ Add new well
- ☐ Increase amount of water withdrawn or diverted
- ☐ Increase pumping rate

No Fee Required

- ☐ Drop a water source
- ☐ Decrease pumping rate
- ☐ Decrease amount of water withdrawn or diverted
- ☐ Add a withdrawal point from an existing surface water source

For technical questions, contact Michael Anderson at 515-725-0336 or at michael.anderson@dnr.iowa.gov.

For all other questions, contact Charlotte Lafargue Henderson at 515-725-0341 or at wateruse@dnr.iowa.gov.

SECTION B: Inventory Information

Instructions: Surface water, complete Parts I & II. Groundwater, complete Parts I & III. Both, complete Parts I, II & III.

Part I: General (to be completed by all applicants)

1. Legal description of withdrawal site (add a page if more space is needed):	Quarter	Quarter	Section	Township	Range	County
2. Legal description of land or property on which water is to be used (add a page if more space is needed):	Quarter	Quarter	Section	Township	Range	County

3. and 4 refer to permit holder, owner, and who receives invoice and all correspondence, as notated on page 1

ONE ADDRESSEE RECEIVES FEE INVOICES

ONE ADDRESSEE (or the same) RECEIVES ALL OTHER CORRESPONDENCE (such as water use report forms, renewals, etc.)

5. Attach a scale map or aerial photo. The application is incomplete without this information.

- a. **Outline** the property where water will be used, and **clearly mark** the location of the water source on the property;
- b. **Show** the locations of, distances to, well depths of, and pump depths of the **nearest 3 wells owned by other people**; and
- c. For sand, gravel, and rock production only, show the exact location(s) of all wastewater discharge sites.

Types of Sources:	Groundwater aquifer (wells)	Reservoir, lake, or pond	Quarry or gravel pit	Stream or river
6. Number of intakes for each type of source. If wells are used, give total number. Enter NA for sources that are not used.				
7. Maximum annual amount requested. Write in amount and check units used.	_____ <input type="checkbox"/> acre-ft <input type="checkbox"/> gal	_____ <input type="checkbox"/> acre-ft <input type="checkbox"/> gal	_____ <input type="checkbox"/> acre-ft <input type="checkbox"/> gal	_____ <input type="checkbox"/> acre-ft <input type="checkbox"/> gal
8. Maximum pumping rate requested for each type of source. Write in the rate, and then check the units used. For wells, the rate must be in gallons/minute.	_____ <input type="checkbox"/> gallons/minute	_____ <input type="checkbox"/> gal/min <input type="checkbox"/> cu ft/sec	_____ <input type="checkbox"/> gal/min <input type="checkbox"/> cu ft/sec	_____ <input type="checkbox"/> gal/min <input type="checkbox"/> cu ft/sec
9. Name of source (if named):		10. Distance from water source to the nearest stream or river: _____ <input type="checkbox"/> feet <input type="checkbox"/> miles		

11. Annual usage period (Irrigation is allowed from 4/1 to 9/30 for general crops and from 4/1 to 10/31 for specialty crops):

Begin: _____ / _____
Month Day

End: _____ / _____
Month Day

12. Requested period of validity for permit (10-year maximum):

13. New or modified water use is expected to begin on:

_____ / _____ / _____
Month Day Year

Part II: Surface Water Sources Complete if using a stream, reservoir, lake, pond, quarry, or gravel pit.

14. Type of surface water source: <input type="checkbox"/> Natural lake <input type="checkbox"/> Man-made lake/impoundment <input type="checkbox"/> River or stream	15. Name of source (if named):
--	--------------------------------

If the water source is a natural lake or a man-made lake or impoundment, answer questions 16 – 18.

16. Total volume of source: _____ <input type="checkbox"/> acre-feet _____ <input type="checkbox"/> gallons	17. Size of drainage area: _____ <input type="checkbox"/> acres _____ <input type="checkbox"/> sq. miles	18. Surface area: _____ acres
---	--	----------------------------------

SECTION B: Inventory Information (cont)

Part III: Groundwater Sources *Mark applicant's new, modified, and recently abandoned wells on map.*

Instructions: Complete items 19 – 31 for all new, existing, and proposed wells to be included in the permit.

For wells that are proposed, give estimates (marked "EST") and send final information when the well is completed.

If more than 3 wells are to be used, provide the requested information on additional pages.

19. Identify – by number or name – each well to be used.	Well Number / Name:	Well Number / Name:	Well Number / Name:
20. For each well, check one of the categories:	<input type="checkbox"/> new <input type="checkbox"/> already existing <input type="checkbox"/> already existing but modified for use	<input type="checkbox"/> new <input type="checkbox"/> already existing <input type="checkbox"/> already existing but modified for use	<input type="checkbox"/> new <input type="checkbox"/> already existing <input type="checkbox"/> already existing but modified for use
21. Date constructed or modified. Enter "Proposed" if construction or modification is not yet completed.			
22. Name of the aquifer from which the well draws or will draw water:			
23. Diameter of well casing (inches):			
24. Length of well casing (feet):			
25. Depth to bottom of well (feet):			
26. Static water level (feet): Level of water when not pumping			
27. Pumping water level (feet): Level of water when pumping			
28. Pump capacity (gallons/minute)			
29. Depth of pump below ground surface (feet):			
30. Water meter(s) installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
31. Distance from the nearest mapped/depicted well [Item 5(b)] and each of the wells to be included in the permit:	_____ <input type="checkbox"/> feet _____ <input type="checkbox"/> miles	_____ <input type="checkbox"/> feet _____ <input type="checkbox"/> miles	_____ <input type="checkbox"/> feet _____ <input type="checkbox"/> miles
32. For DNR use only			

SECTION C: Beneficial Use

Part I: Community Public Water Supplies

33. Current annual water use: _____ gallons	34. Expected maximum population to be served within the next 10 years: _____ people	35. Expected maximum annual usage within the next 10 years: _____ gallons
36. Reason permit or permit modification is needed. Provide a detailed explanation of planned water use:		

Part II: Industrial & Commercial Uses

37. Maximum annual water usage expected within the next 10 years: <input type="checkbox"/> gallons per year (GPY) <input type="checkbox"/> acre-feet per year (AFY)	39. Is drinking water purchased from a public water supply? <input type="checkbox"/> Yes <input type="checkbox"/> No If you have one, list your water supply operation permit (PWSID) number: _____ Contact the Drinking Water program at 515-725-0282 for more information.	40. Do you discharge wastewater? <input type="checkbox"/> Yes <input type="checkbox"/> No If so, list your NPDES permit number: _____ Discharges of water are not allowed in Iowa without the proper permit. Contact the NPDES permit program at 515-725-3403 for more information.
38. List purposes for which water is to be used and amounts expected to be consumed by each use:		

SECTION D: Irrigation

*Irrigation is allowed from April 1 through September 30 for general crops,
and from April 1 through October 31 for specialty crops.*

41. Total size of property: _____ acres	42. Total number of acres to be irrigated (outline area on map): _____ acres
43. Type of irrigation equipment to be used: <input type="checkbox"/> Center-pivot <input type="checkbox"/> Traveling gun <input type="checkbox"/> Gated pipe <input type="checkbox"/> Other (specify): _____	44. Types of crops to be irrigated and acres of each. Golf courses must identify irrigated acres of (a) greens, (b) tees, and (c) fairways.

SECTION E: Production of Sand, Gravel, or Rock

Part I: Location and Dimensions. *Identify pit, stockpile, water source, and point of discharge on map.*

45. Name of quarry or pit:		46. Location of quarry or pit on property:	
47. Current area of quarry or pit: _____ acres		48. Maximum quarry/pit area over life of the permit: _____ acres	
49. If lateral expansion is planned, in what direction will it be?		50. Average thickness of overburden: _____ feet	
51. Total thickness of the sand, gravel, or rock formation: _____ feet		52. If it is a quarry operation, describe the geologic formation(s):	
Average:	53. Present depth of excavation: _____ feet	54. Expected depth within permit life: _____ feet	55. Primary depth of material produced: _____ feet
Maximum:	_____ feet	_____ feet	_____ feet

Part II: Water Resources

Items 56 – 59: Information about the water in the quarry or pit under static (non-pumped) conditions.

56. Surface area of water: _____ acres	57. Static water level (distance from top of pit to water): _____ feet
58. Average water depth in pit: _____ feet	59. Maximum water depth in pit: _____ feet
60. Estimate of amount of water lost by evaporation or hauled away in aggregate per year: _____ <input type="checkbox"/> acre-feet _____ <input type="checkbox"/> gallons	61. Maximum amount of water to be withdrawn per year for drainage of pit: _____ <input type="checkbox"/> acre-feet _____ <input type="checkbox"/> gallons
62. Percent of total annual water usage at this location obtained from a stream or river: _____ %	63. Pump(s) used for stream withdrawal, if applicable: <input type="checkbox"/> portable <input type="checkbox"/> permanent
64. Capacity of pump(s) used for stream withdrawal, if applicable: _____ gal/min	

Part III: Relation to Nearest Watercourse

65. Name of watercourse (if named):	
66. Distance from watercourse at the nearest point: a. to the quarry or pit: _____ feet b. to the stockpile: _____ feet	67. Area of stockpile: _____ square feet

SECTION E: Production of Sand, Gravel, or Rock (cont)**Part IV: Relation to Nearby Wells**

68. Nearest well is owned or controlled by:

☐ Applicant ☐ other(s)

69. If Applicant has a well, list the distance from that well to the quarry or pit:

☐ feet
☐ miles

70. Distance from the nearest well shown for Item 5(b) and the quarry or pit:

☐ feet
☐ miles

71. In what direction is the nearest well shown in 5(b) from the quarry or pit?

72. For what purpose is the well shown in 5(b) used:

73. Has there been any complaint that past or present operations have affected neighboring wells? ☐ Yes ☐ No
If yes, please explain:**Part V: Dewatering.**

Since dewatering of the quarry or pit may lower water levels in nearby wells, any permit authorizing dewatering may be modified or revoked if said dewatering causes substantial damage to other users.

74. Number of pumps used to dewater:

Pumps used for dewatering (if more than three, attach additional pages)

Pump 1

Pump 2

Pump 3

75. Discharge size (inches):

76. Capacity (gallons/minute):

77. By how many feet will the water level in the pit be lowered below the static water level listed in item 57?

_____ feet

78. Discharge permit number(s): [see NOTE below]

Number: _____

79. Where will the withdrawn water be discharged? Specifically describe the location, and indicate the discharge point on the map.

Part VI: Washing or Pugging

80. Total annual usage:

_____ gallons

81. Wash plant pump capacity:

_____ gallons/minute

Dimension

82. List dimensions for each settling basin. Add additional pages if more than 4 basins are used.

Basin 1

Basin 2

Basin 3

Basin 4

Length (feet)

Width (feet)

Depth (feet)

NOTE: Discharges of water are not allowed in Iowa without the proper permit. Contact the NPDES (National Pollutant Discharge Elimination System permit program at 515-725-3403 for more information about water discharge permits.

Certification

I certify the above information is true and correct to the best of my knowledge and that I will provide any additional information to the Department as may be requested.

The Iowa Administrative Code states that water use permit applications must be approved or denied within 90 days. By signing this document, the applicant authorizes an extension in the event this application is incomplete or needs further analysis.

Signature: _____ Date: _____

If this box ☐ is checked, the applicant declines an extension and understands that this renewal application may be dropped and the permit terminated.