

will be granted in the water allocation permit. Please plan carefully.

9. Account for all acreage which presently can be irrigated, and all additional acreage which could or will be irrigated, e.g., planned extension of spray systems, new wells, etc. List the total acreage of all land at the project site, regardless of whether the lands are or could be irrigated.
10. Consumptive use is the amount of withdrawn water not returned to the surface or ground waters (e.g., water to non-local sewer systems, crop up-take, evaporations, etc.).
11. Identify all interconnections, transfer agreements, which can or could supply water to this system.
12. Identify and describe any other system(s) with which an interconnection is physically possible and detail all discussions to that effect which may have occurred among the concerned parties.
13. Wells listed within should have completion reports if they were installed after 1969. If the application does not have completion reports available, they may be available from the drilling contractor. Pumping test data must be submitted for each well if required by the well permit or by the Division of Water. Otherwise, give ALL known construction and pump information for each facility (e.g., depth, screened interval, diameter, pump capacity, etc.).
14. Chemical and bacteriological analyses are conducted for potable supplies by the Division of Public Health, Office of Drinking Water (302) 739-5410. These are the yearly Sanitary Survey, and the Quarterly and Monthly reports for routine analyses. Any analyses appropriate for the project should be submitted.
15. Describe all treatment the withdrawn water will receive prior to use. Examples are but not limited to, chlorination, iron removal, aeration, filtration, fertilizer and chemigation additives, etc.
16. Describe all treatment the wastewater will receive prior to discharge. Examples include the various physical and biological treatments and treatment stages for the waste stream. The latest available NPDES reports on chemical and bacteriological analyses must be included. Provide analyses as appropriate for wastewater spraying projects, groundwater recovery projects, etc. If applicable, name the regional treatment facility receiving the project's wastewater.
17. For irrigation facilities metering refers to elapsed-time indicators on engines and motors, as well as in-line flow meters. For all other facilities, metering refers only to approved, in-line flow meters, or flow-integrators where appropriate. Metering is required and, if meters are lacking a proposed schedule for installation must be submitted for review by the Division of Water.
18. If service connection metering is not 100%, the schedule for 100% metering should be described via a customer break-down, including any existing service metering and recent ordinances thereto. Provide the latest available population figure along with the best projected estimate.
19. Describe all existing conservation measures, and all feasible measures which are planned.
20. Describe all existing drought emergency plans, and all feasible plans, which could be implemented in the event of a declared drought.
21. **The owner or the appropriate official of the owner (as listed in item #1) must sign and date the application. All applications, except for agricultural irrigation, must be notarized.**

These next 6 questions are specific to how your system runs for Irrigation purposes.

8. How many inches of water is required per week to meet the needs of your crop?

2 in

9. How many days would you typically spray irrigate in a week to meet the needs of item 8?

1

10. How many hours per day would the spray irrigation run on a typical day?

8

11. How many weeks is irrigation required during a typical growing season?

3

12. Do you require any pre/post-season irrigation to adjust soil moisture prior to planting the crop?

no

13. If off-peak season irrigation is required, what is the weekly water need and for how many weeks?

n/a

14. Requested rates (Million Gals): .432 Day 12.96 Month 25.92 Year

Sub-Total _____ System Total _____ (check Sub if systems interconnect)

15. For irrigation projects only: Total tillable acreage: 58 Irrigated acreage: 58

16. What is the estimated consumptive use, as a percentage of the total withdrawal? 100

17. For each well listed in #8 (above), attach Completion Reports and pumping test reports as specified in the Well Permit. If reports not available, attach all information about the wells or intakes.

18. Describe all treatment the withdrawn water will receive prior to use.

19. Are all facilities listed in #7 (above) individually metered? _____. Identify those not metered and submit a proposed schedule for meter installation.

20. A. **Public water supply systems:** A Conservation Program which provides for the monitoring, prevention, and repair of leakage throughout the system, provides customer information relating to water conservation and water-saving devices.

B. **Industrial, Commercial, and other water supply projects:** A Conservation Program which provides for the investigation of all feasible conservation measures and provides for the implementation of those feasible as soon as possible. A description of leak-detection monitoring and all feasible process-modifications for minimizing both water usage and loss.

21. Drought Emergency Plan for projects with total system water withdrawal over 1.0 mgd. Attach the following plan description. **(not applicable to irrigation projects).**

A. Identification of all priority uses for water throughout the system or service area, water usage restriction schedules, implementation procedures, and any alternate sources of water.

22. AFFIDAVIT

I, George P Struts, hereby affirm this application and any plans, reports, or documents submitted with this application to be true and correct to the best of my knowledge and belief.

Signature George P Struts
Date _____

SWORN TO AND SUBSCRIBED before me the _____ day of _____.

NOTARY PUBLIC

***Applications for withdrawal for agricultural irrigation are not required to be notarized.**

MAIL TO:

WATER SUPPLY SECTION
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

PHONE: 302-739-9944
FAX: 302-739-7764

STATE OF DELAWARE
DEPARTMENT OF NATURE RESOURCES
AND ENVIRONMENTAL CONTROL

http://www.dnrec.state.de.us/

WELL COMPLETION REPORT
MUST BE RETURNED WITHIN 30
DAYS OF CONSTRUCTION. A
WELL FORMATION LOG MUST BE
INCLUDED WITH THIS REPORT.

WELL COMPLETION REPORT

-Authorization Number-

4549704

ILLEGIBLE OR INCOMPLETE FORMS WILL BE RETURNED

PLEASE PRINT OR TYPE - USE BLUE OR BLACK INK ONLY

DRILLING / EXCAVATION METHOD

Permit #: 247420 Local ID: JW#1
Tax Map/Parcel #: 15-021.00-017
Property Owner: Staats, George
Water Well Contractor: ACSD WC Lic #: 14
Well Driller In Charge During Construction: K. Fay Sr.

Auger Bored Mud Rotary
 Driver Jetted Air Rotary
 Cable Tool Washed Reverse Rotary
 Other (Specify): _____
Total Depth Of Excavation (Feet BGS): 203'
Construction Date: 8/4/14

CASING INSTALLATION: INNER OUTER
Casing Top (Inches AGS): 12 (1) (2) (3)
Casing Bottom (Feet BGS): 143'
Casing Diameter (Inches): 8"
Casing Material: PVC
Gravel Pack Size (#): 3 AGS=Above Ground Surface BGS=Below Ground Surface

SCREEN INSTALLATION:
Screen Top (Feet BGS): 143'
Screen Bottom (Feet BGS): 203'
Screen Diameter (Inches): 8"
Screen Material: PVC
Screen Slot Size (1000 of an Inch): 1050

WELL USE:

Domestic Industrial Heat Pump Supply
 Irrigation Public Heat Pump Recharge
 Agricultural Misc. Public Closed Loop Heat Pump
 Agricultural/Lawn Irrigation
 Other (Specify) _____

TYPE OF PERMANENT PUMP INSTALLED:

Pump Manufacturer: N/A Horsepower: _____
Rated Capacity: _____ (GPM) Pump Intake Setting(ft. BGS): _____
Pump Type: Submersible Jet Vertical Turbine Pump
Pump Installed By: _____ Others Date: _____

Gravel Pack: From: 125 Feet To: 203 Feet
Grout Type: Bentonite Clay Cement Bentonite Clay Plug
Other: _____ From: 0 Feet To: 125 Feet
Type Of Non-Grout Backfill Of Well Annulus: _____
From: _____ Feet To: _____ Feet
Static Water Level: _____ Feet Below Above Ground Surface
Pumping Water Level: _____ Feet On (Date): _____
After: _____ Hours Pumping Rate: _____ GPM
Pumping Method /Device: Airlift Mechanical (Pump) Other: _____
Was A Geophysical Log Taken? Yes No If "Yes", By: _____

Site Plan - If different from original application, must note changes such as distances from well to house, property lines, nearest road, and all nearby septic systems and central sewer lines (included suitable plot plan if available).

RECEIVED
AUG 12 2014
WATER SUPPLY

WELL HEAD COMPLETION:

Type: Pitless Adapter Standard "T"
 Well Pit Pad Mount
 Other - Specify: 8" cap
Well Head Completed: 24 Inches Above Below Ground Surface
Was The Well Tag Attached In Accordance With Current Regulations?
 YES NO If "NO", Please Explain: _____

I HEREBY AFFIRM THE INFORMATION I HAVE SUBMITTED IS ACCURATE AND CORRECT.

Signature - Well Driller in Charge of Well Construction

Well Driller License # 4153

Date 08-11-14

MAIL TO:

WATER SUPPLY SECTION
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY
DOVER, DELAWARE 19901
PHONE: 302-739-9944
FAX: 302-739-7764

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL

WELL COMPLETION REPORT MUST
BE RETURNED WITHIN 30 DAYS OF
CONSTRUCTION DATE

FORMATION LOG

PAGE 2 OF 2 PAGES

PLEASE PRINT OR TYPE - ILLEGIBLE OR INCOMPLETE FORMS WILL BE RETURNED

PERMIT #: <u>247420</u>	LOCAL ID#: <u>ICW#1</u>
PROPERTY OWNER: <u>Staats, George</u>	
WELL CONTRACTOR: <u>ACSD</u>	WC LIC#: <u>14</u>

DESCRIPTION	TOP OF STRATA	BOTTOM OF STRATA
<u>Topsoil</u>	<u>0</u>	<u>1</u>
<u>Med Orange Sand</u>	<u>1</u>	<u>17</u>
<u>Coarse Orange Sand w/ Gravel & Rocks</u>	<u>17</u>	<u>35</u>
<u>Gray Clay</u>	<u>35</u>	<u>60</u>
<u>Green Clay</u>	<u>60</u>	<u>80</u>
<u>Brown Clay</u>	<u>80</u>	<u>102</u>
<u>Green Clay w/ Fine Black Sand</u>	<u>102</u>	<u>125</u>
<u>Fine Green Sand & Clay</u>	<u>125</u>	<u>140</u>
<u>Coarse Brown Multi-Colored Sand</u>	<u>140</u>	<u>183</u>
<u>w/Shell</u>		
<u>Med-Coarse Brown Multi-colored</u>	<u>183</u>	<u>190</u>
<u>Sand w/Shell</u>		
<u>Coarse Brown Multi-Colored</u>	<u>190</u>	<u>203</u>
<u>Sand w/ Limestone</u>		

COMMENTS:

RECEIVED
AUG 12 2014
WATER SUPPLY

I HEREBY AFFIRM THE INFORMATION I HAVE SUBMITTED IS ACCURATE AND CORRECT

[Signature] Signature of Well Driller in Charge of Construction 4153 WD License # 08-11-14 Date