Mokuleia
Park
930
82
Waialua
3-3409-019
3-3409-006
3-3409-017
3-3408-002
3-3410-005
3-3410-002
3-3410-004
3-3409-002
3-3408-003
3-3408-004
3-3409-010
3-3409-020
3-3410-012
Goodale Ave
930

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

APPLICATION FOR GROUND WATER USE PERMIT FOR *PROPOSED NEW USE* IN A DESIGNATED GROUND WATER MANAGEMENT AREA

For Official Use Only:
RECEIVED
COMMISSION ON WATER RESOURCE MANAGEMENT
2019 OCT 15 AM 7:55

FORM GWUPA-N

☒ Application for New Use
☐ Application to Modify WUP No. _____

For detailed instructions on filling out this application form completely, refer to the attached instructions. Incomplete applications will not be accepted for processing.

The following must be attached before this application is accepted as complete:

- Portion of 7.5-Minute Series USGS topographic map (scale 1:24,000) with source location labeled and include the name of the quad map.
- Property tax map, showing source location referenced to established property boundaries.
- Photograph(s) of the source(s) and location(s) of proposed end use(s), if applicable.

APPLICANT INFORMATION

Note 1: In accordance with HRS § 174C-51(1), the landowner shall be the joint applicant in the event the applicant is a lessee, licensee, developer or any person with a terminable interest or estate in the land that is the water source of the permitted water.

1. APPLICANT'S INFORMATION			2. SOURCE LANDOWNER'S INFORMATION		
Name/Company MAJA HOLDINGS, LLC	Contact Person MICHAEL PIETSCH		Name/Company SAME AS APPLICANT	Contact Person	
Mailing Address P.O. BOX 2196 HONOLULU, HI 96805			Mailing Address		
Phone 294-0669	Fax	E-mail mpietsch@tghawaii.com	Phone	Fax	E-mail

SOURCE INFORMATION

3. ISLAND
OAHU

4. GROUND WATER MANAGEMENT AREA
MOKULEIA

4A. SUSTAINABLE YIELD FOR ITEM 4
8 **MGD** 2019 WRPP = 17 MGD

5. SOURCE INFORMATION
Attach additional sheets, if necessary.

Well Number (if known)	Well Name	Existing or Proposed?	TMK (zone - sector - plat : parcel)	Flowmeter installed?
TBD	MAJA 2019	PROPOSED	6 - 8 - 004 : 001	☐ Yes, date installed ___/___/___ ☒ No
			___ - ___ - ___ : ___	☐ Yes, date installed ___/___/___ ☐ No
			___ - ___ - ___ : ___	☐ Yes, date installed ___/___/___ ☐ No
			___ - ___ - ___ : ___	☐ Yes, date installed ___/___/___ ☐ No
			___ - ___ - ___ : ___	☐ Yes, date installed ___/___/___ ☐ No
			___ - ___ - ___ : ___	☐ Yes, date installed ___/___/___ ☐ No

PROPOSED USE INFORMATION §§174C-51(4), (5), (6), HRS

6. TOTAL QUANTITY OF WATER REQUESTED: In the space below, enter total from Box M in Item 11 (Table 1) of this application.
3780 gallons per day, averaged over 1 year

7. PROPOSED USE(S): Check all that apply.
☒ Agriculture ☐ Domestic ☐ Industrial
☐ Irrigation ☐ Military ☐ Municipal

8. LOCATION OF PROPOSED WATER USE(S): Show the location of the proposed use on the same USGS and TMK maps as the proposed source location. Otherwise, attach similar maps. See Item 11 (Table 1, column B) of this application.

Note 2: Signing below indicates that the signatories understand and affirm that the information provided on this application is accurate and true to the best of their knowledge. Further, the signatories understand that: (1) if necessary, further information may be required before the application is considered complete; (2) if a water use permit is granted by the Commission, this permit is subject to any existing legal uses, changes in sustainable yields and instream flow standards, reserved uses as defined by the Commission, and Hawaiian Home Lands' future uses; and ***(3) the applicant is responsible for paying the public notice fees associated with this application.*** Additionally, as stated in Note 1, above, HRS § 174C-51(1) the landowner shall be the joint applicant in the event the applicant is a lessee, licensee, developer or any person with a terminable interest or estate in the land that is the water source of the permitted water.

9. APPLICANT		10. SOURCE LANDOWNER/JOINT APPLICANT (if applicable)	
Signature		Signature	
MICHAEL PIETSCH Print Name	10.7.19 Date	MICHAEL PIETSCH Print Name	10.7.19 Date

PROPOSED NEW USE OR MODIFIED USE INFORMATION

11. TABLE 1: LAND USE CONSISTENCY / EFFICIENCY OF USE (Attach additional copies, if necessary.)

LAND USE CONSISTENCY						EFFICIENCY OF USE			
A	B	C	D	E	F	G	H	I	J
PURPOSE / WATER USE CATEGORY (See the Instructions for water use category descriptions.)	TMK FOR PROPOSED LOCATION OF USE ATTACH THE FOLLOWING: • Property tax map, showing proposed location of use referenced to established property boundaries. • Photograph of the area of proposed use.	STATE LAND USE DISTRICT	CDUP REQUIRED? Check the appropriate box, and write in the date approved, if applicable.	COUNTY ZONING CODE	SMAP REQUIRED? Check the appropriate box, and write in the date approved, if applicable.	UNITS OR NET ACREAGE	GPD/UNIT or GPD/ACRE	QUANTITY OF USE (GPD)	JUSTIFICATION FOR QUANTITY OF WATER REQUESTED (If applicable, attach additional sheets showing how the quantity was calculated.) For irrigation uses, fill in Table 2.
USES THAT REQUIRE POTABLE (DRINKING) WATER									
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
							TOTAL POTABLE USE	K 0	GPD
USES THAT DO NOT REQUIRE POTABLE WATER									
AGRON/AGRCP	6 - 8 - 004 : 001 zone sector plat parcel	URBAN	☐ Yes, date approved: / / ☐ Yes, not acquired ☒ No	R-7.5	☐ Yes, date approved: / / ☒ Yes, not acquired ☐ No	1.26	3000	3780	1.26 ACRES CROPS AND ORNAMENTAL PLANTS
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
	- - : zone sector plat parcel		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No		☐ Yes, date approved: / / ☐ Yes, not acquired ☐ No				
							TOTAL NON-POTABLE USE	L 3780	GPD
							TOTAL QUANTITY OF WATER REQUESTED (sum of total potable use and total non-potable use) =	M 3780	GPD

Please explain if there are any limitations (e.g., legal, contractual) on the proposed water use(s) described in Table 1. Ref. HRS § 174C-51(5).

PROPERTY IS IN SMA BOUNDARY SHORELINE SET BACK. THE WELL IS LOCATED ON THE MAKAI SIDE OF THE PROPERTY.

PROPOSED NEW USE OR MODIFIED USE INFORMATION (continued)

12. TABLE 2: IRRIGATION INFORMATION

List all crops that will be grown, including landscape and golf course irrigation uses. Copy Table 2 and attach additional sheets to complete your list, if necessary.

A TMK FOR PROPOSED LOCATION OF USE ATTACH THE FOLLOWING: • Property tax map with an outline around the area of each proposed irrigation use listed in this table. • Photograph of the area of each proposed use.	B CROP	C TOTAL ACREAGE	D NET IRRIGATED ACREAGE	E BEGIN GROWTH PERIOD (month)	F END GROWTH PERIOD (month)	G IRRIGATION SYSTEM (refer to instructions)	H IRRIGATION PRACTICE (refer to instructions)	I COMMENTS (Continue comments below, if more space is needed.)
6 - 8 - 004 : 001 zone sector plat parcel	SEE COMMENTS FOR LIST OF CROPS	1.26	1.26	JAN	DEC	TRICKLE DRIP, MULTIPLE SPRINKLERS	DEFECIT IRRIGATION	88 COCONUT TREES, 4 KUKUI, 10 BANANA TREES, 1 KAMANI TREE,
zone sector plat parcel							landscape irrigation	1 MONKEY POD, 5 PLUMERIA TREES, 1 AUTOGRAPH TREE,
zone sector plat parcel								2 KOU (INDIGENOUS)
zone sector plat parcel								
zone sector plat parcel								
zone sector plat parcel								
zone sector plat parcel								
zone sector plat parcel								
zone sector plat parcel								
zone sector plat parcel								

Comments (continued from Column I). Please clearly indicate the crop (i.e., the row in table) these comments relate to.

OTHER PERTINENT INFORMATION

13. TABLE 3: ALTERNATIVES ANALYSIS

	A. Analysis of *potable* alternatives Attach additional sheets if necessary.	**B. Analysis of *non-potable* alternatives** Attach additional sheets if necessary.
Municipal sources	NA	UNAVAILABLE
Wastewater reuse	NA	UNAVAILABLE
Ditch system	NA	NO DITCH SYSTEMS IN THE VICINITY
Desalinization	NA	COST PROHIBITED DUE TO DISPOSAL OF EFFLUENT
Surface water	NA	NON AVAILABLE
Conservation Measures	NA	MONITOR SYSTEM FOR LEAKS AND MONITOR MONTHLY WATER USE
Other (specify)		

14. PUBLIC INTEREST

§174C-2(C), HRS states: *The state water code shall be liberally interpreted to* **[a]** *obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However,* **[b]** *adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest.*

Explain how the proposed new use(s) in your application are consistent with items **[a]** and **[b]** above.

The proposed use is for agriculture and irrigation and therefore are consistent with the state water code. There are no streams nearby and no reported protected species or habitats.

15. INTERFERENCE WITH THE RIGHTS OF THE DEPARTMENT OF HAWAIIAN HOME LANDS

Explain how the proposed new use(s) of water will not interfere with the rights of the Department of Hawaiian Home Lands, as provided in section 221 of the Hawaiian Homes Commission Act.

The State Water Projects Plan indicate there are no reservations or currently anticipated reservations by the DHHL for the Mokuleia aquifer system. Although the home on the parcel is historical architecture, there are no crown lands or historical sites listed in the Kipuka database.

16. INTERFERENCE WITH ANY EXISTING LEGAL USES

Explain how the proposed new use(s) of water will not interfere with any other existing legal use(s) of water.

There is one municipal well in the vicinity and numerous smaller wells. This well will be drilled through the consolidated alluvium into the basalt. Even with full flow of the well, there should be little impact on existing wells in the vicinity.

17. PUBLIC WATER SYSTEM INFORMATION

Check the appropriate box or boxes.

☐ PUC-Regulated Private System / ☐ Non-PUC-Regulated Private System / ☒ Not a Public Water System

☐ Intended dedication to Honolulu Board of Water Supply or to County of Maui, Department of Water Supply.

18. CHAPTER 343

☐ An Environmental Assessment was completed, and

☐ An Environmental Impact Statement was required and has been accepted (attach letter of acceptance). Publication date in The Environmental Notice: _____

☐ A Finding of No Significant Impact has been determined (attach letter). Publication date in The Environmental Notice: _____

This project proposes:

- ☐ Use of state or county lands, or use of state or county funds
- ☐ Use within a state conservation district
- ☐ Use within a shoreline setback area
- ☐ Use within a national or Hawaii registered historic site
- ☐ Use within the Waikiki Special District
- ☐ The construction, expansion or modification of helicopter facility
- ☐ A wastewater treatment unit
- ☐ Waste-to-energy facility
- ☐ Landfill
- ☐ Oil refinery
- ☐ Power-generating facility
- ☒ None of the above 11 items

Department of Planning & Permitting
HoLIS - Fast MAPS

Parcels & Zoning

Search
by TMK

Print

TMK

68004001

go

1 Record Found Clear Results | Export Results

GO TO >

PROPERTY REPORT >

PLAT >

STREET/BIRD'S EYE >

68-657 CROZIER DR

TMK: 68004001

Street Terrain Aerial 04 Aerial 08

Labels

Navigate

3409-25 Maja-Pietsch.wcpia
Camp Mokuleia
ving
Crowbar Ranch
Waialua
Mill Pumps
Shop Well
Pump 1
Ranch 4 Reservoir
Dillingham Ranch 2
Dillingham Ranch 3
Dillingham Ranch 1
Pumps
G&R wcr1
3307-24
NSLF-09 Wang
G Tree wcr1
Data SOEST/UHM
Image © 2019 Maxar Technologies
CLCL011.wcpia
Dewald 2016.wcr1
Google Earth

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
APPLICATION FOR A WELL CONSTRUCTION / PUMP INSTALLATION PERMIT

For Official Use Only:
RECEIVED
COMMISSION ON WATER RESOURCE MANAGEMENT
2019 OCT 15 AM 7:54

Instructions: Please print in ink or type and send completed application with attachments to the Commission on Water Resource Management, P.O. Box 621, Honolulu, Hawaii 96809. Original application must be accompanied by a non-refundable filing fee of **$300.00** payable to the Dept. of Land and Natural Resources. The Commission may not accept incomplete applications. For assistance, call the Regulation Branch at **587-0225**. For further information and updates to this application form, visit http://www.hawaii.gov/dlnr/cwrm.

WELL LOCATION INFORMATION

1. STATE WELL NO. (if assigned)	2. WELL NAME	3. ISLAND	4. TMK
	MAJA 2019	OAHU	(1) island - 6 zone - 8 sec - 004 plat : 001 parcel ___ lot

5. WELL COORDINATES (latitude and longitude, referenced to NAD 83, degrees, minutes, seconds to 1 decimal place) and ADDRESS (street, city, zip code)
21 DEGREES 34' 47.81" -158 DEGREES 09' 20.5" 68-657 CROZIER DR. MOKULEIA, HI 96791

The following must be attached before this application is accepted as complete:
- Property tax map, showing well location referenced to established property boundaries
- Photograph of the proposed well site
- A schematic diagram showing the well site, access road and proposed well infrastructure
- Attach written permission from the landowner listed below, that acknowledges the work proposed by this application. If the landowner changes during construction, a new permission statement is required.

6. WELL OPERATOR'S NAME/COMPANY	Well Operator's Contact	7. LANDOWNER'S NAME/COMPANY	Landowner's Contact
MAJA HOLDINGS, LLC	MICHAEL PIETSCH	SAME AS OPERATOR	

Well Operator's Mailing Address	Landowner's Mailing Address
P.O. BOX 2196 HONOLULU, HI 96805	

Well Operator's Phone	Well Operator's Fax	Well Operator's E-mail	Landowner's Phone	Landowner's Fax	Landowner's E-mail
294-0669		mpietsch@tghawaii.com			

PROPOSED WELL CONSTRUCTION

8. Proposed Work
- [x] Construct New Well
- [ ] Modify Existing Well
- [ ] Abandon/Seal Well

9. Construction Type
- [x] Drilled
- [ ] Dug
- [ ] Shaft
- [ ] Tunnel

10. Is this well part of a battery of wells? [ ] Yes [x] No

PROPOSED PUMP INSTALLATION

11. Proposed Work
- [x] Install New Pump
- [ ] Replace Pump

12. Method of flow measurement
- [x] Flowmeter
- [ ] Other (explain)

13. Proposed Pump Capacity, gpm (gallons per minute): 20

14. Proposed Amount of Withdrawal, gpd (gallons per day): 3780

15. Proposed Surveyor name and license number (a surveyor is required for all Well Construction Permits and may be required for some Pump Installation Permits)
Deferred

PROPOSED USE
If the well water will be treated, please describe how (reverse osmosis, ultra violet, etc.) and disposal method of resulting effluent, reject water, etc.

- [ ] 16. Municipal (water systems serving greater than 25 individuals or 15 service connections)
- [ ] 17. Domestic Number of units to be served: _____
- [ ] 18. Industrial (describe)
- [x] 19. Irrigation (describe crop and no. of acres) 88 Coconut, 4 Kukui, 10 Banana, 1 Kamani, 1 Monkey Pod, 5 Plumeria, 1 Autograph, 2 Kou (indigenous)
- [ ] 20. Military (describe)
- [ ] 21. Other (describe)

OTHER LEGAL REQUIREMENTS
If required, items 22. and 23. must be obtained before the Commission can legally issue a permit:

22. **Conservation District Use Permit (CDUP)**
- [ ] Well is in Conservation District
  - [ ] Required, CDUP # _____ date approved _____
  - [ ] Not Required (attach documentation from OCCL)
  - [ ] I have not checked with OCCL about whether or not a CDUP is required.
- [ ] Well is not in Conservation District
- [x] I have not checked if the well is in the Conservation District

23. **Special Management Area Permit (SMAP)**
- [x] Well is in the Special Management Area
  - [ ] Required, SMA # _____ date approved _____
  - [ ] Not Required (attach documentation from applicable County agency)
  - [x] I have not checked with the county about whether or not an SMA Permit is required.
- [ ] Well is not in the Special Management Area
- [ ] I have not checked if the well is in the Special Management Area

24. **State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources (Hawaii Revised Statute, Chapter 6E, Section 106)**
- [ ] I have consulted with the SHPD regarding potential impacts of well construction activities on historic sites. I have attached applicable documentation from the HPD.
- [x] I have not consulted with the SHPD regarding potential impacts of well construction activities on historic sites.

25. **Chapter 343**
- [ ] An Environmental Assessment was completed, and
  - [ ] An Environmental Impact Statement was required and has been accepted (attach letter of acceptance). Publication date in The Environmental Notice: _____
  - [ ] A Finding of No Significant Impact has been determined (attach letter). Publication date in The Environmental Notice: _____

This project proposes:
- [ ] Use of state or county lands, or use of state or county funds
- [ ] Use within a state conservation district
- [ ] Use within a shoreline setback area
- [ ] Use within a national or Hawaii registered historic site
- [ ] Use within the Waikiki Special District
- [ ] The construction, expansion or modification of helicopter facility
- [ ] A wastewater treatment unit
- [ ] Waste-to-energy facility
- [ ] Landfill
- [ ] Oil refinery
- [ ] Power-generating facility
- [x] None of the above 11 items

26. Water Use Permit No. (if applicable): _____ See Attached

Additional remarks, explanations, etc. (attach additional sheet if more space is needed)

NOTE: Signing below indicates that the signatories understand and swear that the information provided is accurate and true to the best of their knowledge. Further, the signatories understand that upon permit approval: 1) the proposed work is to be completed within two (2) years of the approval date; 2) the contractor shall submit to the Commission a well completion/abandonment report within **30** days after the completion date of the permitted work; 3) if the landowner changes during construction, a new permission statement is required; 4) in the event that the application is not completed correctly, any permit may be suspended until the item is brought in to compliance, and any work done while the permit is in suspension may result in fines of up to $5000/day.

27. WELL DRILLER (**Must** be filled out if application is for Well Construction)

Valley Well Drilling, LLC — Licensee business name
24947 — C-57 License No.
Tracie Sober — Signature / Print
10/9/19 — Date
111 Hekili St. Suite A PMB 2761 Kailua, HI 96734 — Address
682-1767 — Phone
682-1768 — Fax
vwdhi@lava.net — E-mail

28. PUMP INSTALLER (**Must** be filled out if application is for Pump Installation)

Valley Well Drilling, LLC — Licensee business name
24947 — C-57/C-57a/A License No.
Tracie Sober — Signature / Print
10/9/19 — Date
111 Hekili St. Suite A PMB 2761 Kailua, HI 96734 — Address
682-1767 — Phone
682-1768 — Fax
vwdhi@lava.net — E-mail

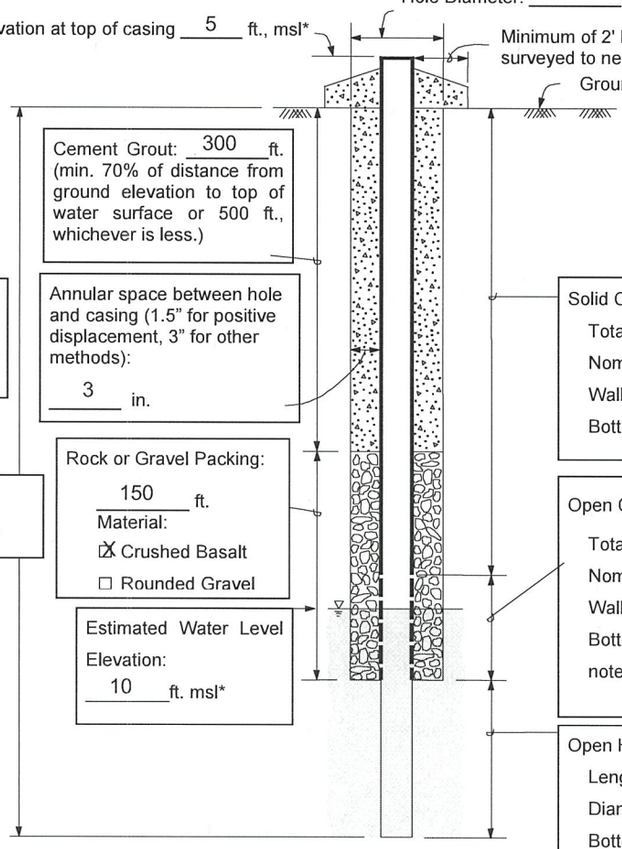
PROPOSED WELL SECTION *(Please attach schematic if different from diagram provided below. Also, if this proposed well is a dug well, attach a grading plan with cross section profiles showing existing and finished grades)*

Hole Diameter: 12 in.

Elevation at top of casing 5 ft., msl*

Minimum of 2' Radius & 4" Thick Concrete Pad (to contain benchmark surveyed to nearest 0.01 ft.)

Ground Elevation: 3 ft., msl*



Please refer to the **HAWAII WELL CONSTRUCTION AND PUMP INSTALLATION STANDARDS** to ensure that your as-built is in compliance with applicable standards.

Cement Grout: 300 ft. (min. 70% of distance from ground elevation to top of water surface or 500 ft., whichever is less.)

Grouting method:
- ☒ Positive displacement
- ☐ Other

Annular space between hole and casing (1.5" for positive displacement, 3" for other methods): 3 in.

Solid Casing: (≥ 90% x (Ground Elev.-Water Level Elev))
- Total Length: 410 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.25 in.
- Bottom Elevation: -407 ft., msl*

Total Depth 450 ft.

Rock or Gravel Packing: 150 ft.
Material:
- ☒ Crushed Basalt
- ☐ Rounded Gravel

Open Casing: ☐ Perforated ☒ Screen
- Total Length: 40 ft.
- Nominal Diameter: 6 in.
- Wall Thickness: 0.25 in.
- Bottom Elevation: -447 ft., msl*

note: *Neither bentonite nor mud should be used in saturated zone during drilling*

Estimated Water Level Elevation: 10 ft. msl*

Open Hole:
- Length: NA ft.
- Diameter: in.
- Bottom Elevation: ft., msl*

* The approximate elevation must be referenced to mean sea level (msl) at the time of application filing. Final elevations of well components shall be submitted in the Well Completion/Well Abandonment reports and referenced to a benchmark which has been established by a surveyor licensed by the State.

For non-salt water Basal Wells - bottom elevation of well should not be deeper than 1/4 of aquifer thickness or,

$$\text{Bottom Elevation of Well Limit} = \left(\text{Water Elevation} - \frac{41 \times \text{Water Level Elevation}}{4}\right)$$

Example: Estimated + 2 ft. Water Level Elev. ⟶ Bottom Elevation of Well Limit = $\left(2 - \frac{41 \times (2)}{4}\right) = -18.5$ ft.

Note: Unless a variance is requested and approved, if the well is greater than ¼ of the theoretical aquifer thickness, the well may have to be backfilled to bring the depth into compliance.

Solid Casing Material:

Carbon Steel: compliant with (check one or more): ☐ ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☒ ASTM A53 ☐ ASTM A139

And compliant with (check one or more): ☐ ASTM A242 (or A606) ☐ Type E ☐ Type S ☒ Grade B ☐ Other

Stainless Steel: (check one): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) ☐ Schedule 40 ☐ Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120

Thermoset Plastic: (check one)
- ☐ Filament Wound Resin Pipe conforming to ASTM D2996
- ☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
- ☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- ☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- ☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
- ☐ FEP Fluorocarbon Tubing conforming to ASTM D3296

Open Casing Material:

Carbon Steel: compliant with (check one or more): ☐ ☐ ANSI/AWWA C200 ☐ API Spec. 5L ☒ ASTM A53 ☐ ASTM A139

And compliant with (check one or more): ☐ ASTM A242 (or A606) ☐ Type E ☐ Type S ☒ Grade B ☐ Other

Stainless Steel: (check one): ☐ ASTM A409 (production wells) ☐ ASTM A312 (monitor wells)

ABS Plastic conforming to ASTM F480 and ASTM D1527: (check one) ☐ Schedule 40 ☐ Schedule 80

PVC Plastic conforming to ASTM F480 and (ASTM D1785 or ASTM D2241): (check one): ☐ Schedule 40 ☐ Schedule 80 ☐ Schedule 120

Thermoset Plastic: (check one)
- ☐ Filament Wound Resin Pipe conforming to ASTM D2996
- ☐ Centrifugally Cast Resin Pipe conforming to ASTM D2997
- ☐ Reinforced Plastic Mortar Pressure Pipe conforming to ASTM D3517
- ☐ Glass Fiber Reinforced Resin Pressure Pipe conforming to AWWA C950
- ☐ PTFE Fluorocarbon Tubing conforming to ASTM D3296
- ☐ FEP Fluorocarbon Tubing conforming to ASTM D3296