

# Groundwater Research, Science, and Data Collection Grants – Fiscal Year 2026

## Addendum No. 2 Questions & Answers (Q&A)

**Deadline to ask questions regarding this grant program: February 27, 2026**

### **Info Session: TWDB Groundwater Research, Science, and Data Collection Grants**

*Friday, January 30, 2026, 10:30am, Central Standard Time*

**Q. How is "compatibility" defined for the MODFLOW 6 requirement for groundwater model projects? If the new groundwater model uses MODFLOW 6 code, does that meet the compatibility requirement?**

- A. Compatibility for this requirement means that a local model must be constructed as a refined version of an existing Texas Water Development Board (TWDB) MODFLOW 6 groundwater availability model (GAM), rather than built independently using a different conceptualization of groundwater flow. A "compatible" local model should:
1. Use the same grid orientation and base grid cell size as the regional parent model. For example, a local model could further refine grid cells using quadtree refinement within a local area, but the grid cell edges at the boundary must be coincident with the grid cell edges in the parent model (Avoid: rotated vs. non-rotated grid, Voronoi/triangle grid vs. structured grid)
  2. Use the same structural conceptualization as the existing MODFLOW 6 GAM. For example, a local model could subdivide a layer from the parent regional model (while preserving the overall top and bottom surface of the parent layer) but not introduce new layers with tops and bottoms that conflict with layer surfaces in the parent regional model. If grid refinement requires changes to layer tops and bottoms due to resampling, there should not be drastic elevation changes at the boundary between the local and parent model.
  3. Use the same model properties as the existing regional MODFLOW 6 GAM unless the property changes are directly the result of the local model calibration (Example: New refined calibration parameter zones) and documented as such.

At this time, we do not require that the local model runs must include fully coupled runs with the regional GAM. However, the model should be constructed so that it could be coupled if computational requirements were not a consideration.

**Q. Are precipitation gauge purchases and installation costs eligible under the Data Collection category?**

- A. Yes, but only if it is clear in the project proposal how the precipitation gauges support effective groundwater resource management and planning within a district and across the state and support the primary goal of Category 2 projects.

**Q. Is quarterly reporting always required or just with advance payments? Is there an option for annual reporting?**

- A. Reporting requirements will be outlined in the grant agreement and may vary depending on the type of project and the TWDB's perception of risk level and oversight needs. All invoices for payment requests will be required to be submitted quarterly.

**Q. Is a Fiscal Year 2024 audit suitable to meet the eligibility requirement?**

A. The district's most recent financial audit, as required by Texas Water Code § 36.153, must be included with the application.

**Q. If a small, or any, district does not have matching funding, does that help or hinder consideration?**

A. In the scoring criteria, 0-5 points out of 100 total points will be allocated pending the level of supplemental funding, with more points for clearly identified supplemental funding with documentation. Supplemental funding helps the TWDB extend the use of the grant funding, but it does not hinder a small district from being considered because financial need is allocated 0-10 points in the scoring criteria, with more points for greater need.

**Q. Can Districts submit an application in both Fiscal Year 2026 and Fiscal Year 2027? If well-scored, would funds be available to the same District two years in a row?**

A. Currently, plans for an application period in Fiscal Year 2027 are unknown. The TWDB will assess the need for future application rounds after assessing the volume of applications in this initial round. If the TWDB opens an application period for Fiscal Year 2027 funds, this question has been noted and saved for consideration.

**Q. Can a groundwater conservation district be eligible for a grant as an individual district and also be part of a grant submitted by a groundwater management area on behalf of its members?**

A. Yes, a groundwater conservation district may partner with other districts on a project proposal, but if an individual district is applying for a project, they should not be indicated as the applicant on the cooperative project proposal application. Multiple applications from the same applicant *will not* be accepted.

**Q. If groundwater conservation district receives a grant, will an external audit be required, as in other state grants?**

A. The district's most recent financial audit, as required by Texas Water Code § 36.153, must be included with the application. Additionally, districts are subject to review by the State Auditor's Office.

**Q. Does all work have to be done in-house by groundwater conservation district staff, or can some of our budget include paying for consultant's assistance?**

A. District staff can do the work or the district can hire a consultant, but that is solely the responsibility of the district. The TWDB will provide the funds to complete the awarded project, and the district will conduct the project in the manner needed to get it done.

**Q. My question was on how detailed the budget needs to be on monitoring equipment? Do you have an example to follow?**

A. Appendix B (page 13) in the [Grant Guidelines document](#) includes example project budget and equipment cost list tables.

**Q. Can in-kind staff time be used to apply as a match?**

A. Yes.

**Q. Would databases be considered data gathering or would databases not qualify?**

A. Databases would qualify. Database creation or enhancement is listed as an example of a Category 2 project on page 5 of the [Grant Guidelines document](#).

**Q. Are the scoring metrics going to be available for the applicant to view?**

A. The [Grant Guidelines document](#) includes the scoring criteria on pages 9-10. After grant agreements are executed, if an applicant was not selected and would like to know why, they may request a debrief with the TWDB to discuss the scoring criteria and how they were scored.

**Q. If our project is estimated at \$300K but we have \$50K set aside for drilling a well that would help the project can we use that in the grant to help show we are providing extra? Or would be limited to asking for \$250K?**

A. In Section V of the [application form](#), the applicant is required to indicate the total project cost, the amount requested from the TWDB, and any supplemental funding amounts and sources. In this particular example, if the applicant chooses to list the \$50,000 amount as supplemental funding, the amount requested from the TWDB should be clear (whether it's \$300,000 or \$250,000) on the application form and should be supported by a proposed project budget.

**Q. If multiple districts collaborate on a project, with each individual district applying for grant funding for parts of a larger project, will that be a consideration in the scoring process?**

A. Information provided on the application should clearly demonstrate how the project, whether an individual project or part of a larger project, supports effective groundwater resource management and planning. The scoring criteria in the [Grant Guidelines document](#) allocates more points for clearly articulated local benefits to address needs; for clearly articulated statewide benefits and improvement to best available science; and for significant, clearly defined, and impactful outcomes that advance groundwater science and inform groundwater management and planning, with strong alignment with regional or statewide priorities.

**Q. Can funds be used for existing projects or is this only for new projects? Say a district has an ongoing project they have been working on for a couple of years, can they apply for these funds to pay for some of that?**

A. Yes, if the project is aligned with the grant program and one of the grant category goals.

**Q. Is there any consideration to partnering with institutions of higher education?**

A. No, the scoring criteria do not explicitly consider whether a project is proposed in partnership with an institution of higher education. However, the technical expertise of the project team is considered in the scoring criteria, with more points for a clear demonstration of strong technical expertise.

**Q. Would you give us a snapshot as to what the TWDB is expecting from the GCDs regarding the grant agreements?**

- A. The TWDB is still working on templates for grant agreements so does not have an example to provide yet. However, all data deliverables must be provided to the TWDB and must adhere to data requirements as provided in the grant agreement. Requirements for data deliverables such as groundwater level measurements, springflow measurements, water quality data, or updated well information (like location, depth, aquifer assignments, etc.) will be similar to the requirements provided on the [Submitting Groundwater Data to the TWDB](#) webpage.

**Other questions received outside of the Info Session**

**Q. Are equipment purchases allowed under Category 1?**

- A. Yes. The TWDB acknowledges that projects may overlap into the two categories. Applicants should choose a category for which the primary goal of the project and the category are most closely aligned.

**Q. Do the upper and lower funding limits apply to the project as a whole or just the TWDB share?**

- A. The TWDB will award grants for an amount between \$50,000 and \$300,000. If supplementing a project with additional district funds, the total cost of the project can exceed \$300,000. However, the TWDB will not provide funding in an amount less than \$50,000.

**Q. What are some of the basic types of recorder well equipment the TWDB uses?**

- A. Installations generally include a pressure transducer placed inside the well casing, a small enclosure that houses a datalogger and transmitter, an antenna, a solar panel mounted on a nearby pole with associated battery, and protective fencing if livestock are present.

Most recorder well sites operated by the TWDB use the Geostationary Operational Environmental Satellite (GOES) satellite system to transmit water-level data. This requires use of a GOES transmitter. A complete GOES site equipment setup is approximately \$6,000 per site, with prices varying based on multiple factors (number of units purchased, timing of quote request and equipment purchase, equipment vendor, market fluctuations, available supply, etc.).

A more complete list of equipment the TWDB uses is included as a table on the last page of this document. TWDB staff understand site conditions or data requirements may warrant use of other types of equipment, such as acoustic water-level sensors or cellular data transmission units. It is important to consider site-specific needs and ensure selected equipment systems and components are in alignment and able communicate with one another. Please note that TWDB Recorder Program staff cannot assist with or review grant applications and associated equipment pricing.

**Q. How can we plan new recorder well site installations to align with the TWDB Recorder Well Program goals and objectives?**

- A. The TWDB generally selects sites based on location (areas or aquifers with limited recorder well coverage, experiencing rapid increases in groundwater use, and other special factors), accessibility and access permission, and well condition, with a preference for unused wells with no internal equipment, good surface completion, and at least 20 feet of water in the well casing. It is recommended to visit recorder well sites for routine maintenance and collection of manual tape-down water-level measurements at least once per year.

The TWDB Recorder Well Program predominantly relies on the GOES satellite system to automatically transmit hourly water-level data to TWDB data systems. We are able to provide a DCP ID (a unique identifier provided by the National Oceanic and Atmospheric Administration) and host the incoming data on our [Water Data for Texas](#) (WDFT) platform at no cost to GCDs that operate GOES transmission systems. The GOES setup transmits hourly water-level data to our WDFT platform every 12 hours. While upfront costs for equipment to run GOES transmission systems are higher than cellular transmission systems, there are no recurring monthly data transmission or hosting costs. Cellular data transmissions currently require manual data uploads by TWDB staff into our data systems. Therefore, we cannot guarantee timely data uploads and viewing via WDFT or the TWDB Groundwater Database for this type of data.

While TWDB Recorder Well Program staff can train GCDs in site maintenance and troubleshooting techniques, they are limited in providing assistance for routine maintenance tasks. Applicants should consider long-term resource availability for recorder well site maintenance and operation tasks when preparing applications for new recorder well site installations.

**Q. With the TWDB grant funding opportunity, can the TWDB Recorder Well Team provide recommendations on equipment upgrades or replacements needed at existing recorder well sites?**

- A. TWDB Recorder Well Team staff can discuss questions on current recorder well configurations and setups with GCDs per usual coordination and cooperative partnerships in the TWDB Recorder Well Program. The Recorder Well Program is currently planning to replace a majority of the SatLink 2 transmitters in the GOES network within the next one-to-two years with available funding in the Recorder Well Program budget and will coordinate with groundwater conservation districts on SatLink 2 transmitter sites located in their networks as part of this effort.

**Q. Would the Edwards Aquifer Authority be an eligible applicant?**

- A. Grants may only be awarded to groundwater conservation districts that are defined by [Texas Water Code § 36.001\(1\)](#), meeting both the constitutional authority and “authority to regulate the spacing of water wells, the production from water wells, or both;” and are authorized to accept funds under [Texas Water Code § 36.158](#). and [Texas Water Code § 36.159](#) The EAA should confirm their status in meeting this eligibility requirement prior to applying.

**Q. Is there a deadline date past which question about the program cannot be asked of TWDB?**

A. Yes, all questions regarding this grant program must be submitted before Friday, February 27, 2026.

**Q. Can a single application for this grant include applicability to both Groundwater Grant categories, or does it need to apply to one Grant category or the other?**

A. Applicants need to select one grant category for their proposed project. The TWDB acknowledges that projects may overlap into the two categories. Applicants should choose a category for which the primary goal of the project and the category are most closely aligned.

**Q. Could our grant application be tied to the development of A.I. capabilities germane to the satisfaction of the Groundwater Grant categories?**

A. Yes, if the project is aligned with the grant program and one of the grant category goals.

**Q. Could a District act as a "pass-through" or provide some cost sharing to complete a water loss audit for a community groundwater-based system?**

A. Possibly, if the water loss audit component is tied to an overall project scope with a clear demonstration of how the project and associated tasks support effective groundwater resource management and planning. The TWDB will provide the funds to complete awarded projects, and the district will conduct the project in the manner needed to get it done.

**Q. Could multiple "projects" be included on one application?**

A. Yes, if the multiple "projects" are tasks that contribute to a larger project aligned with the grant program and one of the grant category goals.

**Q. Additionally, could multiple pieces of equipment be purchased on the same application, such as transducers and downhole cameras?**

A. Yes.

**Q. In the "Explain the need for financial assistance" box, there is no specific word limit shown (as on the "Short project description" 175 words, and the "Category-specific narrative" 300 words). Is there a word limit for the "Explain the need for financial assistance"? And if not, is it acceptable that it will be necessary to scroll down to read a description that is more than 4 lines long.**

A. There is no word limit in the 'Explain the need for financial assistance' section. We did not anticipate lengthy responses for this item on the application.

**Q. When it comes to the number of words being limited, I spell out a couple items once, such as the “Upper Gulf Coast Aquifer System” (UGCAS) then abbreviate it as an acronym throughout the rest of the section. Is the acronym considered 1 word, or does it count as each word of the acronym? For example, will “UGCAS” count as one word or as five words?**

A. Acronyms count as one word in the word total, and we appreciate you spelling them out the first time they appear.

**Q. Our understanding is: Category 1 proposals are (by definition) research and science projects. The goal for category 1 projects is to further the best available science in the state. The specific science advanced by a category 1 project should demonstrate that it is of a nature such that the results generated can be leveraged to support or inform groundwater management and planning. Category 1 projects are not required to demonstrate that the project results will be utilized specifically by the applying groundwater district in their local planning and management processes or that such local implementation will be specifically supported by a grant award. Indeed, category 1 projects should demonstrate that they provide statewide benefits and improvements to best available science. In this sense, such a category 1 project may not score well on the 10-point criteria related to “project support [for] local groundwater management and planning” but it is otherwise eligible and suitable for the grant program. Is our understanding correct?**

A. Yes.

**Q. Will TWDB disqualify or negatively evaluate an application for a project that uses a local model which is not presently "constructed as a refined version of an existing Texas Water Development Board (TWDB) MODFLOW 6 groundwater availability model (GAM)" but is re-constructed through the proposed grant project to satisfy the condition?**

A. Project proposals for development of a local numerical groundwater flow model must be compatible with an existing MODFLOW 6 groundwater availability model (GAM). Compatibility for this requirement means that a local model must be constructed as a refined version of an existing TWDB MODFLOW 6 GAM, rather than built independently using a different conceptualization of groundwater flow. A “compatible” local model should:

1. Use the same grid orientation and base grid cell size as the regional parent model. For example, a local model could further refine grid cells using quadtree refinement within a local area, but the grid cell edges at the boundary must be coincident with the grid cell edges in the parent model (Avoid: rotated vs. non-rotated grid, Voronoi/triangle grid vs. structured grid)
2. Use the same structural conceptualization as the existing MODFLOW 6 GAM. For example, a local model could subdivide a layer from the parent regional model (while preserving the overall top and bottom surface of the parent layer) but not introduce new layers with tops and bottoms that conflict with layer surfaces in the parent regional model. If grid refinement requires changes to layer tops and bottoms due to resampling, there should not be drastic elevation changes at the boundary between the local and parent model.
3. Use the same model properties as the existing regional MODFLOW 6 GAM unless the property changes are directly the result of the local model calibration (Example: New refined calibration parameter zones) and documented as such.

At this time, we do not require that the local model runs must include fully coupled runs with the regional GAM. However, the model should be constructed so that it could be coupled if computational requirements were not a consideration.

**Q. Which groundwater availability models for the Gulf Coast Aquifer will be used to evaluate compatibility for a model developed or refined through a proposed project?**

A. According to our requirements, compatibility means that a local model must be constructed as a refined version of an existing TWDB MODFLOW 6 groundwater availability model (GAM), rather than built independently using a different conceptualization of groundwater flow. Here are the current models and their versions that cover the Gulf Coast Aquifer System (GCAS); only the northern portion of the GCAS GAM would be eligible currently:

1. Northern portion of the GCAS (v4.1) - MODFLOW 6
2. Central portion of the GCAS (v1.01) - MODFLOW 96
3. Southern portion of the GCAS (v2.01) - MODFLOW 96
4. Central and southern portions of the GCAS (v1.01) - MODFLOW-USG

**Q. Is there an option for me to get the funds for [new recorder well sites], then get them installed, and the [TWDB] monitoring program steps in to own and service them?**

A. Because we currently only have a small team responsible for maintaining a statewide network of around 300 recorder well sites and growing, we are limited in our ability to maintain additional sites districts install independently. While we can assist with things like training and providing GOES IDs to enable continuous data transmissions into our data systems, the TWDB cannot currently commit to maintaining any new recorder wells that are installed with money from the GCD grant program.

**Q. Do you have a cost for [recorder well] equipment that we can purchase directly or through you guys that we can use in the grant proposal?**

A. We have provided additional information on equipment selections on the last page of this document. TWDB Recorder Program staff cannot assist with grant applications or associated equipment pricing. The TWDB does not offer equipment for purchase. Additionally, the TWDB Recorder Well Team will not be providing any supplemental or ancillary equipment towards new site installations funded through the GCD grant program.

**Q. Would you be available to help with [recorder well] installation?**

A. Because we currently only have a small team responsible for maintaining a statewide network of around 300 recorder well sites and growing, we are limited in our ability to maintain additional sites districts install independently. While we can assist with things like training and providing GOES IDs to enable continuous data transmissions into our data systems, the TWDB cannot currently commit to maintaining any new recorder wells that are installed with money from the GCD grant program.

There are a number of GCDs who pay a contractor to install and maintain their recorder well networks, but we do not have any specific details on those agreements and cannot provide estimates on associated costs. We generally recommend budgeting approximately \$500 per year per recorder well to plan for future necessary equipment purchases (does not include labor costs).

**Q. The Q&A document attached with the email below had the following at the end of**

the document:

***Please sign and submit this document along with your response to the solicitation, acknowledging your receipt of this Addendum. [This document will not count against the page limit of your response.]***

**Please accept this request for clarification on the parenthetical comment about the page limit for our GCD grant application. I did not find a page limit indicated in the application template or guidelines.**

**What is the page limit for the grant applications and how are you counting pages? Is each 8.5 by 11 inch electronic “page” of our application counted with the exception of the Q&A document and acknowledgement of its receipt?**

A. There is no page limit for the application. The parenthetical comment has been removed from this updated version of the Q&A.

**Q. Our team anticipates sending a zip file with our application materials. However, on the minor chance the file size is large, should our team include a link to a file sharing location?**

A. Yes, you can provide a link to a file sharing location in *Section VI. Additional Documentation* on the application form. If we encounter any issues accessing files, like a zip file or link for file sharing, we will not consider this an ‘incomplete application’ and we will work with the applicant to ensure access.

**Q. Questions have already been asked regarding project scope and limitations. However, would an application be entertained that encompassed a larger research goal with two research projects included that meet the larger goals? Such as; the characterization of the southern portion of the Upper Trinity Aquifer through the characterization and testing of monitoring well sites in Parker and Hood County?**

A. Information provided on the application should clearly demonstrate how the project, whether an individual project or part of a larger project, supports effective groundwater resource management and planning. The scoring criteria in the [Grant Guidelines document](#) allocates more points for clearly articulated local benefits to address needs; for clearly articulated statewide benefits and improvement to best available science; and for significant, clearly defined, and impactful outcomes that advance groundwater science and inform groundwater management and planning, with strong alignment with regional or statewide priorities.

**Q. Many applications will include supplementary documentation to meet the outlined scoring criteria. Will an applicant be penalized if the associated documentation includes an educational memorandum answering providing response to the grant question inquires, such as how the projects meet Scoring Criteria C, D, and E?**

A. Applicants may provide any supplementary documentation they deem necessary or relevant to support their application.

**Q. I was reviewing the [Grant Guidelines] this morning and noticed that there are two different project completion dates in the document. On page 3 under Eligible applications, it states that FY2026 grants are for projects that can be completed by May 31, 2028. This deadline is also noted on page 8 – Important dates. However, on page 12 under IV. Project Information, it states that “awarded projects must be completed by January 29, 2028.” This is substantially less time to complete awarded projects than the May date. Please clarify which date is the correct project completion deadline.**

A. There is a typo in the Grant Guidelines on page 12, Section IV, Project Information, Project Duration. The deadline to complete projects awarded in Fiscal Year 2026 is May 31, 2028.

**Q. When will [the] funding be available for the grant to start? Do you think it will be this summer or more likely Oct. 1st?**

A. Page 8 of the grant guidelines shows July 2026 as our anticipated deadline for executing grant agreements, assuming all goes well with our tentative May 2026 TWDB Board approval of projects. Once grant agreements are fully executed, awarded districts will then be able to submit reimbursement requests or payment advance requests per the request schedule that will be outlined in the grant agreement.

**Q. In the “Explain the need for financial assistance” box, there is no specific word limit shown (as on the “Short project description” 175 words, and the “Category-specific narrative” 300 words). Is there a word limit for the “Explain the need for financial assistance”? And if not, is it acceptable that it will be necessary to scroll down to read a description that is more than 4 lines long.**

A. There is no word limit in the ‘Explain the need for financial assistance’ section. We did not anticipate lengthy responses for this item on the application.

**Q. When it comes to the number of words being limited, I spell out a couple items once, such as the “Upper Gulf Coast Aquifer System” (UGCAS) then abbreviate it as an acronym throughout the rest of the section. Is the acronym considered 1 word, or does it count as each word of the acronym? For example, will “UGCAS” count as one word or as five words?**

A. Acronyms count as one word in the word total, and we appreciate you spelling them out the first time they appear.

**Q: As we prepare our grant proposal for submission to the TWDB, our District policy allows the General Manager to enter contracts, and the Board will provide explicit authorization through a posted agenda item at the next board meeting. Because no grant resolution was included on the already-posted agenda, what documentation—if any, beyond a Board resolution—would be acceptable to meet TWDB’s authorization requirement?**

A. Please refer to the [grant application](#) for the acceptable documentation; it is listed on page 2 of the application. The application requires an Authorized official (has legal authority to sign a grant agreement) and here is the eligibility documentation requirements from the application:

**Eligibility documentation**

- Attach ONE of the following to confirm applicant eligibility, intent, and authorized representatives. Select which form of documentation is included in this application:
  - An affidavit from the individual with the authority to act on behalf of the applicant,
  - OR A copy of an adopted resolution,
  - OR Minutes approved by the groundwater conservation district board with the authority to act on behalf of the applicant.

An affidavit is acceptable as a confirmation of your authorized official.

## TWDB recorder well major component list

Any specific products listed in this table do not indicate an endorsement of any specific vendor or product.

Recorder well component	Models currently in use by TWDB <sup>i</sup>	Required specifications for consideration by TWDB
GOES transmitter – data logger	Sutron Satlink 3 and 3-lite, FTS LT1	<ul style="list-style-type: none"> <li>GOES (NOAA/NESDIS) Certification Standard: Version 2.0 GOES 300 bps and 1200 bps</li> <li>Bluetooth or Wi-Fi connectivity for setup</li> <li>Test transmission utility for validating setup</li> <li>SDI-12 inputs: V1.3 or later; at least two input channels</li> <li>Automatic firmware check and upgrade when connecting to device (preferred)</li> <li>RF output power: up to 14 Watts</li> <li>Logging memory: ~1,000,000 readings on internal memory or SD card</li> </ul>
Vented pressure transducer	Campbell Scientific CS-451 High Accuracy model, InSitu Level TROLL 500, Keller Acculevel	<ul style="list-style-type: none"> <li>Measurement time &lt;1.5 seconds</li> <li>SDI-12 output</li> <li>±0.05% full-scale-range TEB</li> <li>Temperature Accuracy ±0.2°C</li> </ul>
Vent tube protection	Keller bellows, desiccant container	<ul style="list-style-type: none"> <li>Protects vent tube from debris or moisture</li> <li>Forms a tight seal over tube</li> </ul>
Electronics enclosure	Polycase ZH-121006	<ul style="list-style-type: none"> <li>UV resistant opaque plastic</li> <li>Stainless steel latches</li> <li>Internal dimension minimums 12 x 10 x 7 inches</li> <li>External pole mount hardware</li> </ul>
GOES antenna	Harsh Yagi antenna, Sutron omni antenna	<ul style="list-style-type: none"> <li>Yagi antennae are cheaper but less durable over time and require precise aiming and an external GPS antenna</li> <li>The Sutron omni antenna has a higher cost, built in GPS antenna, and requires no aiming</li> <li>External pole mount hardware</li> </ul>
Lightning arrestor	Polyphaser TUSX-NFF	<ul style="list-style-type: none"> <li>Impedance 50 Ohm</li> <li>Minimum frequency 300 MHz</li> <li>Maximum frequency 1.2 GHz</li> </ul>
Lithium battery	Eco-worthy, Dakota Lithium, XZNY	<ul style="list-style-type: none"> <li>12V 18Ah minimum</li> <li>Lithium is preferred over lead acid batteries for long term environmental resilience</li> </ul>
Solar panel	Newpowa	<ul style="list-style-type: none"> <li>30 Watt output</li> <li>Lightweight and easy to mount to a pole</li> </ul>
Charge controller	Renogy, Newpowa	<ul style="list-style-type: none"> <li>Digital readout to check battery and solar panel health</li> <li>Rated for 10 A charge current</li> </ul>

<sup>i</sup> These are the equipment models currently in use by the TWDB. Equivalent models that meet specifications are also acceptable for use on a recorder well.