

any workgroup. GSA staff, facilitators and technical experts will provide assistance to ad hoc workgroups as needed. A simple summary will be prepared for any ad hoc workgroup meeting that takes place. The summary will memorialize the date of the meeting, who attended, and topics discussed. Ad hoc workgroups will not provide advice or recommendations directly to the SRPGSA Board. Rather, ad hoc workgroup products will be presented to the full Advisory Committee for consideration. Ad hoc workgroups will abide by the Advisory Committee's ground rules.

## **Membership**

Composition of the Advisory Committee is intended to reflect the beneficial uses and users of groundwater in the Santa Rosa Plain. Established by the Board, the Advisory Committee consists of eighteen members that represent the following member agency designations and interest groups:

- Nine at-large members, one appointed by each SRPGSA member agency.
- Two at-large members from SRPGSA member agencies that have chosen not to participate on the Board
- Seven interest-based appointees appointed by the SRPGSA Board:
  - Two environmental representatives
  - Two rural residential well owners
  - One business community representative
  - Two agricultural interests (surface water or groundwater user)

Advisory Committee members may not serve concurrently on the SRPGSA governing board.

Members must live or work within or represent an organization with a presence in the Santa Rosa Plain Groundwater Basin, identified by the Department of Water Resources current Bulletin 118. The Board will determine if alternates are necessary, and if so, the appointment process.

Advisory Committee members serve without compensation.

### **Selection and Appointment Process**

The Board maintains an interested parties list, develops and oversees an application process, and make appointments to the Advisory Committee following member terms outlined below.

#### *At-Large Seats*

Each SRPGSA member agency's governing body will appoint its at-large seat. Member agencies will notify the Administrator in writing in the event the agency needs to change its appointed member.

#### *Interest-Based Seats*

Interested individuals from the community or local organizations may apply to the Board, designating in the application the seat that the applicant would intend to fill. The SRPGSA Board encourages interest groups to work together to recommend a single candidate to fill that interest's seat. The Board will give strong consideration to appointing candidates that have the backing of multiple organizations or individuals within that interest group and familiarity with

groundwater and its management. The Board will also give preference to applicants with experience working with diverse community-based groups.

For the interest-based community representatives, the Board will give strong preference to representatives who live or work within a Disadvantaged Community (as defined in SGMA) and will in any case give preference to appointees that can represent the interests of disadvantaged populations or interests that are otherwise under-represented on the Advisory Committee.

The Board may modify by supermajority vote the composition and number of Advisory Committee members. The Board can remove an interest-based committee member by majority vote if the member is not performing his or her responsibilities.

#### *Terms*

The initial Advisory Committee appointments will include seven seats with three-year terms (interest-based categories) ending in December 2020 and 11 two-year terms (at-large) ending in December 2019. Following initial Committee appointment, all terms will be two years and end in December. Appointees are not term-limited; however, members must apply for each term. If a vacancy occurs for an interest-based seat before the end of the term, the Board will appoint a new individual to complete the term. The appointing Member shall fill at-large vacancies.

To ensure continuity and broad participation at Advisory Committee meetings, members may, but are not required to, use alternates on an as-needed basis. Alternates serve the same role as members when members are absent, including serving as a proxy for members during committee deliberations. Any member who cannot attend a meeting must ensure that his/her alternate is adequately briefed on relevant issues and prepared to participate, offer advice and make any recommendations on his/her behalf. Alternates are expected to be fully prepared to discuss agenda items and participate in committee decisions and recommendations. No items addressed at previous meetings will be revisited to accommodate an alternate. Only the member participates at a given meeting if both the member and the alternate are present.

#### *Alternates (Note: Use of alternates is still pending Board approval)*

Selection of alternates will align with the Board's prior process for selecting and appointing advisory committee members (described above). Each member agency will self-select its primary member and alternate. For interest-based members, the Board will open a solicitation process for alternates. Any interest-based members who wish to use an alternate will inform the GSA Administrator of such interest, and, further, notify the Administrator when a prospective alternate has been identified. In alignment with the Board appointment process, prospective interest-based alternates, like the member him/herself, will apply and be subject to appointment by the Board. The prospective alternate will designate in the application the seat and specific individual member for which the person will serve as an alternate. Any alternate application will include a letter of support from the primary member for which the individual will serve as an alternate.

The Board will give strong consideration to appointing alternates that have the backing of multiple organizations or individuals within an interest group, and familiarity with groundwater and its management. The Board will also give preference to applicants with experience working with diverse community-based groups, or applicants that can represent the interests of Disadvantaged Communities (as defined by SGMA). Like the advisory committee members,

alternates must live, work or represent an organization with a presence in the basin. One alternate may live outside the basin and within the watershed.

## Process Agreements and Ground Rules

To conduct a successful collaborative process, the facilitator and all Advisory Committee members will work together to create a constructive, problem solving environment. To this end, all members agree to the following process agreements which the Committee will use, and to ground rules which will guide individual and group behavior.

### *Process Agreements*

- ✓ **Everyone agrees to negotiate in good faith.** All participants agree to participate in decision making, to act in good faith in all aspects of this effort and to communicate their interests during meetings. Good faith also requires that members not make commitments they do not intend to follow through with, and that members act consistently in the meetings and in other forums where the issues under discussion in these meetings are also being discussed.
- ✓ **Everyone agrees to address the issues and concerns of the participants.** Everyone who is joining in the Advisory Committee is doing so because s/he has a stake in the issue at hand. For the process to be successful, all the members agree to validate the issues and concerns of the other members and strive to reach an agreement that takes all the issues under consideration. Disagreements will be viewed as problems to be solved, rather than battles to be won.
- ✓ **Everyone agrees to inform and seek input from their constituents about the outcome of the facilitated discussions.** To the extent possible, scheduling will allow for members to inform and seek input from their constituents, scientific advisors, and others about discussions.
- ✓ **Everyone agrees that members can meet with other organizational or interest group members.** Advisory Committee members may find it helpful to meet with other organizations or interest group members and to consult with constituents outside of the meeting so the member is better able to communicate community concerns on the issues at hand.
- ✓ **Everyone agrees to attend all the meetings to the extent possible.** Continuity of the conversations and building trust are critical to the success of the Advisory Committee. Members are encouraged to turn off cell phones and focus on the issue at hand. Agency staff or the facilitator will coordinate the meeting schedule.

### *Ground Rules*

#### **Use Common Conversational Courtesy**

Treat each other with mutual respect as you discuss and deliberate groundwater issues.

#### **All Ideas and Points of View Have Value**

All ideas have value in this setting. We are looking for innovative ideas. The goal is to achieve understanding. Simply listen, you do not have to agree. If you hear something

you do not agree with or you think is "silly" or "wrong," please remember that the purpose of the forum is to share ideas.

**Be Honest, Fair, and as Candid as Possible**

Put your interests forward, help others understand you and listen actively in order to understand others.

**Avoid Editorials**

It will be tempting to analyze the motives of others or offer editorial comments. Please talk about *your own* ideas and thoughts. Avoid commenting on why you believe another participant thinks something.

**Honor Time, Be Concise and Share the Air**

Help ensure an inclusive discussion by being cognizant of time constraints, stating your views clearly and concisely, and sharing the air so others can participate as well.

**Think Innovatively and Welcome New Ideas**

Creative thinking and problem solving are essential to success. "Climb out of the box" and attempt to think about the problem in a new way.

**Invite Humor and Good Will**

Don't hesitate to bring levity and humor to the process when warranted, as this often helps collaborative discussions.

**Be Comfortable**

Please feel help yourself to refreshments or take personal breaks. If you have other needs please inform the facilitator.

**Be Engaged**

Please turn off (or place on vibrate mode) your cell phones and other mobile devices. If you must take a call or check emails, please take a personal break outside.

## **Communication**

**Media**

Members are asked to speak only for their organization or themselves when asked by external parties, including the media, about the Advisory Committee's progress, unless there has been a formal adoption of a statement, concepts, or recommendations by the Advisory Committee. Members will refer media inquiries to the Agency communications lead and reserve freedom to express their own opinions to media representatives. Members should be careful to present only their own views and not those of other participants. The temptation to discuss someone else's statements or position should be avoided. The Agency communications lead may refer media to the Advisory Committee Chair to speak on behalf of the Advisory Committee as needed.



## **Amendments**

The Advisory Committee can recommend and adopt future changes to the charter. Suggested changes may be put forward by the Committee members, the facilitator or the Administrator. The Advisory Committee will utilize its decision-making procedure to adopt changes to the charter. In the absence of consensus on suggested changes to the charter amendments, majority and minority views will be communicated to the Board, and the Board will have final decision making authority on charter content.

**Appendix 1-E**  
**Santa Rosa Plain Groundwater Sustainability Agency**  
**Advisory Committee Meetings 2017-2021**

## Santa Rosa Plain Groundwater Sustainability Agency Meetings 2017-2021

<https://santarosaplaingroundwater.org/meetings/>

<b>SANTA ROSA PLAIN BOARD</b>	<b>SANTA ROSA PLAIN ADVISORY COMMITTEE</b>
June 1, 2017	October 30, 2017
August 10, 2017	December 4, 2017
November 20, 2017	January 8, 2018
February 8, 2018	February 12, 2018
April 12, 2018*	April 9, 2018*
June 14, 2018*	May 7, 2018*
August 9, 2018	June 11, 2018
October 11, 2018*	September 10, 2018*
December 13, 2018	November 5, 2018*
March 14, 2019*	January 14, 2019*
April 11, 2019*	March 11, 2019*
June 13, 2019*	May 13, 2019*
August 8, 2019*	July 8, 2019*
October 10 – Cancelled, due to power shut down	September 9, 2019*
December 12, 2019*	November 18, 2019*
February 13, 2020*	January 13, 2020
April 9, 2020*	March 9, 2020*
June 11, 2020*	May 11, 2020 *
August 13, 2020*	June 22, 2020 *
October 8, 2020*	July 13, 2020 *
October 29, 2020*	September 14, 2020*
December 10, 2020*	October 19, 2020*
January 28, 2021*	November 9, 2020*
February 11, 2021*	January 11, 2021 *
March 11, 2021*	February 8, 2021*
April 8, 2021*	March 8, 2021*
June 10, 2021*	March 29, 2021*
August 12, 2021*	May 10, 2021*
September 30, 2021*	July 12, 2021*
October 14, 2021*	September 13, 2021*
December 9, 2021*	November 8, 2021*

*\*Indicates meetings in which the GSP was discussed.*

**Appendix 1-F**  
**Community Engagement Plan for Development and**  
**Adoption of a Groundwater Sustainability Plan**  
**Santa Rosa Plain Groundwater Sustainability Agency**

# Community Engagement Plan

## for Development and Adoption of a Groundwater Sustainability Plan

### Santa Rosa Plain Groundwater Sustainability Agency

January 2018

## Purpose, Outcomes & Goals

The purpose of the Sustainable Groundwater Management Act (SGMA), signed by Governor Brown in 2014, is to ensure local sustainable groundwater management in medium- and high-priority groundwater basins statewide. **California's Department of Water Resources has determined that Sonoma County has three medium priority basins that are subject to SGMA Implementation:**

- Petaluma Valley basin
- Santa Rosa Plain subbasin
- Sonoma Valley subbasin

This draft Community Engagement Plan applies only to the Santa Rosa Plain Groundwater Sustainability Agency, although many outreach activities will be coordinated with the other basins.

**SGMA Milestones:** The Santa Rosa Plain basin achieved the first milestone in SGMA by creating a Groundwater Sustainability Agency (GSA) by June 30, 2017. The second major milestone in the SGMA is the adoption of a Groundwater Sustainability Plan (GSP) by January 30, 2022. The GSP is prescribed by SGMA and contains required elements. The third milestone is achieving sustainability by 2042.

Several key steps must be taken to ensure that the Groundwater Sustainability Plan is adopted, including:

- Adoption and implementation of a financing plan that will allow the Santa Rosa Plain GSA to be financially independent;
- Development, drafting and vetting of specific elements within the GSP;
- Compilation, vetting and final drafting of the GSP as a whole.

**Outcomes:** The desired outcome for this communication and outreach plan is to achieve adoption of the GSP with input from and in consideration of Sonoma County's diverse people, economy and ecosystems. As the GSA gets closer to completion of the GSP, a new community engagement plan will be developed to address implementation issues.

**Plan Goals:** SGMA requires the GSA to consider the interests of all beneficial uses and users of groundwater, and encourage involvement of diverse social, cultural, and economic elements of the population within the Basin during GSP preparation and implementation. The goals of the Community Engagement Plan are to:

- Enhance understanding and inform the public about water and groundwater resources in the Santa Rosa Plain, the purpose and need for sustainable groundwater

management, the benefits of sustainable groundwater management and the need for a GSP.

- Engage a diverse group of interested parties and stakeholders and promote informed feedback from stakeholders, the community and groundwater-dependent users throughout the GSP preparation and implementation process.
- Reach out to and engage disadvantaged communities throughout the rate/fee study and GSP preparation process.
- Coordinate communication and involvement between the GSA (Board, Advisory Committee and staff), and other local agencies (including other GSAs), elected and appointed officials, and the general public.
- Utilize the GSA Advisory Committee to facilitate a comprehensive public engagement process.
- Employ a variety of outreach methods that make public participation easy and accessible. Hold meetings at times and venues that encourage broad participation.
- Respond to public concerns and provide accurate and up-to-date information.
- Manage the community engagement program in a manner that provides maximum value to the public and an efficient use of GSA and local agency resources.

**Time Period:** The Plan is intended to cover communication and outreach for January 2018-January 2022, when the GSP is due to be submitted to California Department of Water Resources. Because this is a multi-year project and plan, the key activities needed to achieve these goals will be broken down into annual work plans, and may be amended in response to community needs.

**Interested Parties and other stakeholders:** SGMA lists interested parties who the GSA must consider when developing and implementing the GSP, including:

- Agricultural users of water
- Domestic well owners
- Municipal well operators
- Public water systems
- Land use planning agencies
- Environmental users of groundwater
- Surface water users
- The federal government
- California Native American tribes
- Disadvantaged communities (including those served by private domestic wells or small community water systems).

**See Appendix A** for a list of the interested parties in Santa Rosa Plain. Representatives of most of the interested parties are included on the GSA Board or Advisory Committee.

Other stakeholders can also be impacted by decisions made by the GSA, including businesses, schools, land stewardship organizations, and state government agencies. **See Appendix B** for a listing of additional stakeholders that will be considered and solicited for feedback during development of the GSP.

## Outreach Roles

The **GSA Board**, which is comprised of elected and appointed officials, will make the ultimate decisions on financing options and on the GSP. As required by the Joint Powers Authority agreement that created the GSA, the Board will consider the recommendations of the Advisory Committee.

In regard to outreach, the Board is responsible for:

- Adopting and overseeing implementation of the Community Engagement Plan;
- Receiving public comments made verbally and in writing;
- Considering the recommendations of the Advisory Committee.

In addition, the Board may choose to play a more active role in outreach through communication with the public, stakeholder groups, and the entities it represents.

The **Advisory Committee**, which is comprised of members appointed by the GSA Board, , representatives of entities that comprise the GSA, and representatives of eligible entities not part of the GSA, will become familiar with financing options and issues related to the GSP. The Advisory Committee is charged with actively engaging with the public for input and feedback. This charge will be carried out through various mediums and a variety of activities, but generally includes:

- Advising staff in the drafting of the Community Engagement Plan;
- Actively seeking input from the represented stakeholder groups on issues before the GSA;
- Sharing input and feedback with the full Advisory Committee meeting; and
- Making recommendations to the Board.

The Santa Rosa Plain GSA Board, the Santa Rosa Plain GSA Advisory Committee, and staff are committed to keeping the **public informed**, providing the public with **balanced and objective information** to assist the public in understanding SGMA, available options and recommendations, and **creating an open process** for public input on the development and implementation of the GSP.

When evaluating the options and making decisions, the Board, Advisory Committee and staff will **solicit public input** through a variety of methods, including public workshops, written and verbal comments, meetings with stakeholder organizations and community events (see Attachment A for Year One examples). Input can be made during public comment periods at Advisory Committee and Board meetings, and in writing. Comments made in writing can be submitted to [Brittany@goldridgercd.org](mailto:Brittany@goldridgercd.org).

True engagement requires policymakers and the public to not only talk, but to also listen. The Santa Rosa Plain GSA asks all participants – whatever their role – to follow these rules of engagement:

- Be a good listener. Listen to what is being said; find out why it is being said.
- Be respectful to all participants.

## Community Engagement Plan

To truly engage the public in development of a GSP that is science-based, complex, technical, and includes achievable outcomes, the GSA will strive to meet these overall objectives:

- Educate the public in compelling ways. Communicate what may often be complex concepts in simple and compelling ways with graphics and examples.
- Manage expectations. Avoid “anything goes” meetings that might pursue unrealistic and unpractical approaches.
- Show how the input received has been incorporated into the plan or process. Demonstrating to the public how their ideas have been reflected in the plan or planning process is an important piece to the puzzle.
- Remain focused on results. Understand objectives of each public meeting and facilitate the achievement of those objectives.

The Community Engagement Plan is comprised of two categories of activities a: Ongoing and project- or program-specific.

**Ongoing activities** are the “housekeeping” tasks of the GSA outreach, including website maintenance and updates, monthly blogs to the interested parties list, expansion and maintenance of the interested parties list, updating fact sheets and FAQs, posting Board and Advisory Committee meetings and materials and issuing press releases about meetings.

**Project or program-specific engagement activities** are developed to meet the outreach goals of each project or program.

**In Year One (July 1, 2017- June 30, 2018)**, the GSA Board must hire legal counsel (completed); hire rate/fee consultants (completed); apply for Proposition 1 GSP funding grant (underway); adopt various documents including bylaws and a Community Engagement Plan; initiate the first steps in developing the GSP; determine whether to request basin boundary modifications; and determine a short-term mechanism for funding the GSA. The initiation of the GSP and the rate/fee study are projects that require robust community engagement, using the tools described in the Communication Forums and Tools section, below. Attachment A provides a detailed table of Year One engagement activities, including timeframes and key roles.

**In Years Two through Five (July 1, 2018-January 31, 2022)**, program specific engagement activities will be focused on development of GSP plan elements. The GSP will be prepared iteratively and in a logical progression, building on previously developed technical and policy information. Throughout the process of preparing the GSP, background materials along with draft text, figures and tables for each section will be provided to the GSA member agency staff, Advisory Committee, the GSA Board and the public in advance of meetings for input and comment. The Advisory Committee, public and Board will have opportunities to comment on each element, before the element is ultimately adopted by the Board.

It is anticipated that the GSP will be developed in six phases:

1. Preparation and submittal of initial notification of GSP preparation (Year One)
2. Definition of plan area and basin setting (Year Two)



3. Development of sustainable management criteria, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives and interim milestones. (Years Two and Three)
4. Design of monitoring program and data management system. (Year Three)
5. Identification and evaluation of proposed projects and management actions (Years Four and Five)
6. Development of GSP implementation costs, detailed schedule, and reporting Year Five)

Each phase requires robust outreach with the goal of educating and engaging the general public, stakeholders, the Advisory Committee and Board on the technical and policy aspects of the GSP plan elements. Each phase will include a mix of communication tools, to be used in a variety of forums. Public hearings will be held at the end of each phase.

Every March, staff will work with the Advisory Committee to develop an Activities Plan for the upcoming fiscal year (beginning on July 1), incorporating tools and techniques that worked well in previous years and modifying or eliminating tools that failed to engage people.

## **Communication Forums & Tools**

### **Governance Agencies Briefings**

Board members may brief their councils or boards regularly on GSA activities and may work with GSA staff to provide additional briefings on sensitive or important topics.

In Year One, the goal is to brief member agencies about the initiation of the GSP and the rate/fee study in January and about proposed rate/fee options in April. The purpose of the briefings is to inform boards and councils about the purpose of the GSP and the rate/fee study; the necessity and timing of the rate/fee study; and to get feedback on proposed rate/fee options.

### **Stakeholder Briefings**

Advisory Committee members will meet with and communicate regularly with organizations comprised of the stakeholder groups they represent. To avoid overlap and mixed messages, all briefings will be coordinated with outreach staff. Many stakeholder groups were interviewed in 2015, during SGMA initial stakeholder outreach. The Stakeholder Assessment can be found online at [www.sonomacountygroundwater.org](http://www.sonomacountygroundwater.org).

### **Disadvantaged Community Engagement – Community Events & Using Existing Venues**

Disadvantaged Communities (DACs) are specifically called out in SGMA as an interested party. Thirty-six percent of the area in the Santa Rosa Plain Basin is designated an Economically Distressed Area, and 24 percent of the area in the basin is categorized as a DAC. A large percent of the people living in the DAC areas are relatively recent immigrants from Spanish-speaking and Asian countries.

Previous assessments of engaging Sonoma County’s Spanish speaking community recommend using “food, faith and festivals” as opportunities to educate and interact with

people on critical issues. Connecting with communities through existing organizations and through community events, churches and schools, provides an opportunity share information and solicit feedback on rate/fee options and GSP elements

### **Public Meetings/Hearing**

Public meetings or hearings are formal opportunities for people to provide official comments on programs, plans and proposals. SGMA requires that a public meeting be held prior to the adoption of a fee and that public hearings are held for the adoption of GSP elements and the final GSP plan. There are also constitutional requirements for public hearings for some fee/rate options. Public meetings and hearings are an important forum for people to share viewpoints and concerns, but often occur at the end of a process, when only one option is under consideration. The GSA will hold required public meetings and hearings, but will also use less formal public workshops (described below) to solicit feedback and information early in the process.

### **Public Workshops**

Public educational workshops provide less formal opportunities for people to learn about groundwater, SGMA, financing options, and GSP elements. Workshops can be organized in a variety of ways, including open houses, “stations” where people can ask questions one-on-one, world cafes and traditional presentations with facilitated question and answer sessions. In order to solicit feedback from people who may not be comfortable speaking in public, workshops can include small group breakout discussions, “dot” voting, comment cards and other techniques. Whatever format is used, workshops will be designed to maximize opportunities for public input.

A workshop will be held in the spring of Year One (2018) to describe and solicit feedback on fee/rate options. Workshops will also be held as GSP elements are being developed.

### **Public Notices**

In addition to the public notice required for fee adoption, SGMA requires that prior to initiating the development of a GSP, the GSA must provide a written statement describing the manner in which interested parties may participate in the development and implementation of the GSP. The statement must be provided to all the cities within the basin and to the County of Sonoma.

As outlined in this Community Engagement Plan, there will be a variety of opportunities for people to participate in the development and implementation of the GSP, including workshops, public hearings, providing comments at Board and Advisory Committee meetings and through written comments. In early 2018, staff and legal counsel will develop a written statement for public participation.

### **Specific tools will be used to inform and engage people, including:**

#### **Interested Persons List**

SGMA mandates the creation of an interested persons list. SGMA does not specify the type of list (email versus hard copy). The first preference is an email list, to get information out quickly and to reduce costs. A secondary list will be developed for people who don't use email. Board members (and the agencies they represent), Advisory Committee members and

staff can contribute names of organizations, agencies, and individuals to the list. Whenever new inquiries are made the people making the inquiry will be added to the list. The Santa Rosa Plain Groundwater Basin Advisory Panel lists will also be utilized.

The list is broad and includes anyone who would like to stay informed about SGMA activities and anyone the Board and Advisory Committee thinks should be informed about GSP process and the outcome of the planning effort. Outreach staff will send out monthly updates to the Interested Persons list. This list will also be used for dissemination of information on public workshops, public meetings, etc.

### **Informational Materials**

Developing a variety of informational materials is critical to successful education and necessary to circulate consistent, accurate information. Outreach staff, with the input of the administrator, plan manager and the Advisory Committee, will develop a range of materials, including at least the following:

#### *Periodic Updates*

- **Talking Points:** Clear, concise messages to be used by Board and Advisory Committee members and staff when communicating with media, organizations and stakeholders.
- **Milestone Fact Sheets:** For initiating the GSP, the rate/fee study and completion of elements of the GSP.
- **Newsletter Articles:** A short paragraph (50-100 words) that Advisory Committee members can insert into organizational newsletters. These brief articles can also be published in the Sonoma County Water Agency's e-newsletter, which has a broad distribution.
- **Newspaper editorials:** Authored by Outreach staff and Board or Advisory Committee (after review and approval of the full Advisory Committee) members for submittal to local news sources.
- **Briefing Packets:** For milestone briefings to the public and stakeholders. Packets will include standard talking points, PowerPoint presentations, and other materials to assist in educational outreach and for soliciting feedback.

#### *Background/Baseline Information*

- **General Fact Sheet:** A general Fact Sheet describing the GSA governance structure.
- **Basin Conditions:** Very brief description of the Santa Rosa Plain basin (one page, two sides).
- **GSP Goals and Requirements:** A Fact Sheet describing the goals and requirements for the Groundwater Sustainability Plan.
- **Existing Educational Materials:** Such as the Santa Rosa Plain Groundwater fact sheets and primers.

**Website:** The project website, [www.sonomacountygroundwater.org](http://www.sonomacountygroundwater.org), will be a tool for distributing and archiving meeting and communication materials as well as a repository for any studies. Outreach staff anticipates updating the website monthly, and more often if needed. The website includes the following information:

- Home page: summary and “what’s new” information
- Groundwater basics
- Santa Rosa Plain Information:

- Board members, meeting schedule, agendas, and meeting materials.
- Advisory Committee members, meeting schedule, agendas, and meeting materials

**Social Media:** Existing Facebook, Twitter, Next Door and other emerging social media technologies will be leveraged to provide updates on milestone progress to interested parties.

**Surveys:** Online tools, such as Survey Monkey, will be used periodically to gather stakeholder ideas and to provide feedback on key issues.

**Media Plan:** Outreach staff will work with the administrator to develop press releases and Public Service Announcements (if appropriate) at each milestone and for meetings. The press releases will be distributed to local and regional media and Legislative and Congressional representatives.

## **Appendix A:\* Consideration of Interests, as required by SGMA<sup>1</sup>**

\*This list is not exhaustive or exclusive.

### Cities, Town, County

- Cotati
- Rohnert Park
- Santa Rosa
- Sebastopol
- Windsor
- County of Sonoma

### Tribes

- Federated Indians of Graton Rancheria
- Lytton Band of Pomo Indians

### Federal Government

- National Oceanic & Atmospheric Administration/NMFS
- US Army Corps of Engineers
- Natural Resource Conservation Service
- USFWS
- EPA

### Public Water Systems

(Note: Many of the mutual and PUC-regulated water companies listed below have joined together and hold one seat on the GSA Board and one seat on the GSA Advisory Committee. The other water companies have been contacted but are not currently interested in participating in the GSA.)

- Sonoma County Water Agency
- Cal-American, Larkfield
- Penngrove Water Company
- Athena Terrace Mutual Water Company
- Branger Mutual Water Company, Inc.
- Hawkins Water Co-Cal Water Service
- Holland Heights Mutual Water Company
- Madrone Mutual Water Company
- Mount Weske Estates Mutual Water Company
- Park Royal Mutual Water
- Wendell Water Company
- Willowside Mutual Water Company

### Agriculture

- Sonoma County Farm Bureau
- United Winegrowers
- Community Alliance of Family Farmers/Farmer's Guild
- Western United Dairymen's Association
- Sonoma County Winegrape Commission
- Sonoma County Vintners
- BRONC
- North Bay Agricultural Alliance

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<sup>1</sup> Water Code §10723.2

- Santa Rosa Plain Vintners and Growers
- Gold Ridge Resource Conservation District
- Sonoma Resource Conservation District
- Sonoma County Growers Alliance

Organizations that Represent Environmental Uses of Groundwater

- Sonoma County Water Coalition
- Sonoma County Conservation Action
- Fairfield Osborn Preserve
- Pepperwood Preserve
- Sebastopol Water Information Group (SWIG)

Disadvantaged Communities (and organizations that represent disadvantaged communities)<sup>2</sup>

- Roseland, Southwest Santa Rosa, Southeast Santa Rosa, Northwest Santa Rosa, Kawana Springs, Apple Valley
- Social Advocates for Youth
- Boys and Girls Club
- Los Cien
- Community Action Partnership
- Burbank Housing
- Catholic Charities
- Immigration advocacy groups

Well Owners (including domestic well owners)

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<sup>2</sup> As identified by the County of Sonoma

## **Appendix B:\* Other Interested Parties<sup>3</sup>**

\* While not required to be engaged under SGMA, these stakeholders will be including in the outreach program. This list is not exhaustive or exclusive.

- Sonoma County Agricultural Preservation & Open Space District
- Sonoma County Planning Commission
- City/Town Planning Commissions
- Russian River Watershed Association
- Santa Rosa Plain school districts
- Sonoma State University
- Santa Rosa Junior College
- Memorial Hospital
- Sutter Hospital
- Kaiser Hospital

### State Government

- Regional Water Quality Control Board
- California Department of Fish and Wildlife

### Business / Developers

- Sonoma County Alliance
- Construction Coalition
- North Bay Association of Realtors
- Economic Development Board
- Chambers of Commerce

### Citizens & Community Organizations

- League of Women Voters
- Democratic and Republican Club
- Rotaries
- Kiwanis
- SIRS
- Sonoma County Community Foundation
- Sonoma Land Trust
- Accountable Development Coalition
- Concerned Citizens for Santa Rosa
- Sierra Club

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<sup>3</sup> Appendix B includes parties and organizations that may be interested in groundwater management, but are not specifically identified as an interest that must be considered under Water Code §10723.2.

## Attachment A: SANTA ROSA PLAIN GSA -- YEAR ONE OUTREACH

Activity	Description	SGMA or Brown Act?	Shared across basins?	Time Frame	Who
<b>Ongoing Outreach</b>					
Monthly Updates	Blog to Interested Party List		X	Emailed by 15 <sup>th</sup> of each month	WA Staff, with review by administrator
Website	Postings, updates, edits		X	15 <sup>th</sup> of each month	WA staff, with review by administrator
Fact Sheets	GSA description Basin Description GSP FAQ			December December March	WA staff, with review by administrator and AC (GSP FAQ)
Media contacts	Inquiries from reporters		X	As needed	WA staff takes inquiries, directs reporter to administrator, Plan Manager, AC Chair or Board Chair
Notifications	Post Board & AC agendas	X		72 hours before meeting	WA staff. Materials provided by administrator
Free media	Issue press releases for Board & AC meetings		X	2 weeks before meeting	WA staff, with review by administrator
<b>Additional Outreach for Initiation of GSP</b>					
Public Notice		X		January	WA staff, with review by administrator and plan manager
Paid, free & social media	Press releases, ads and social media.		X	January	Staff, with AC input. Use existing social media channels of AC and Board organizations/agencies.
<b>Additional Outreach for Rate &amp; Fee Study</b>					
Talking Points	In English and Spanish		X	v1 December v2 February v3 April/May	WA staff, with input and review by administrator & AC
Fact Sheets/FAQs	English and Spanish		X	V1 December V2 March	WA staff, with input and review by administrator & AC
Workshop			X	March	WA staff, with input and review by administrator & ACs
Paid, free & social media	Press releases, ads and social media. Purpose is to publicize workshops, Public Hearings.		X	March, May	Staff, with ACs input. Use existing social media channels of AC and Board organizations/agencies. Spanish language outreach via radio.



<b>Additional Outreach for Rate &amp; Fee Study (cont.)</b>					
<b>Activity</b>	<b>Description</b>	<b>SGMA or Brown Act?</b>	<b>Shared across basins?</b>	<b>Time Frame</b>	<b>Who</b>
Agency Briefings	Brief member agencies on study and options			January, April	WA staff works with Board members to coordinate
Stakeholder Briefings	Speak at existing meetings			December-May	ACs , Board members, staff
DAC outreach	Use existing venues (church, school, community events)			December - May	WA staff works with AC members to identify opportunities and to attend events
Public Meeting or Hearing	Public meeting required by SGMA; hearing may be needed	X		May	Raftelis, with staff support

**Appendix 1-G**  
**Stakeholder Assessment Report: Findings and**  
**Recommendations on Implementing the Sustainable**  
**Groundwater Management Act in Sonoma County**

# Stakeholder Assessment Report

## Findings and Recommendations on Implementing the Sustainable Groundwater Management Act in Sonoma County

Developed by Senior Mediator Gina Bartlett, Consensus Building Institute, Inc.  
September 15, 2015

### Overview

The State of California passed the Sustainable Groundwater Management Act in 2014. The State has designated three groundwater basins in Sonoma County as medium priority: the Petaluma Valley, Santa Rosa Plain, and Sonoma Valley. The Act requires that medium and high priority basins form a groundwater sustainability agency by June 2017, develop a groundwater sustainability plan by 2022, and achieve sustainability by 2042. Under the Act, local agencies with water supply, water management or land use responsibilities are eligible to form a groundwater sustainability agency. To develop an effective process for groundwater sustainability agency formation in these three basins, the Sonoma County Water Agency contracted with the Consensus Building Institute to conduct a stakeholder assessment and make recommendations on a process for forming groundwater sustainability agencies in compliance with the Act. This report summarizes the interview findings and process recommendations.

CBI conducted interviews with representatives of each GSA-eligible local agency and key organizations and interest groups. CBI also met with both the Santa Rosa Plain and the Sonoma Valley basin advisory panels in person to discuss panel members' perspectives on implementing the Act. CBI also conducted an online survey related to these issues and received 36 confidential responses. For the survey, CBI invited basin advisory panel members from both the Sonoma Valley and Santa Rosa Plain, stakeholders interested in water issues, federal and state agencies with jurisdiction in the region, and Public Utilities Commission-regulated water companies to participate.

During this assessment, CBI met periodically with the County-Water Agency Working Group made up of staff from the County Administrator's Office, Permit & Resource Management Department, County Counsel and the Sonoma County Water Agency to discuss preliminary insights and findings and identify subsequent steps in the assessment process. After completing most of the interviews and receiving the majority of survey respondents, CBI met with staff of the GSA-eligible entities to discuss the assessment's preliminary findings and begin developing a process that would consider the responsibilities of the governing boards of the eligible entities and the many stakeholders in the county that are interested in groundwater issues. Process recommendations in this report reflect the outcome of those deliberations.

### Existing Groundwater Management Programs

Both the Sonoma Valley and the Santa Rosa Plain have groundwater management programs with monitoring programs, stakeholder involvement, and other components to manage groundwater in

different stages of implementation. The Sonoma County Water Agency is the lead agency for implementing these programs. Both have a Basin Advisory Panel that develops consensus-based recommendations to implement the groundwater programs effectively. The Petaluma Valley is in the early stages of assessing its groundwater resources.

## Assessment Findings

The following summarizes findings from interviews and surveys of the Consensus Building Institute.

### Understanding SGMA and Water Stakeholders

Generally, interviewees are trying to understand and think about the best way to implement the law in the designated basins in the county. It is important to note that most respondents, both staff and stakeholders, articulate commitment to long-term sustainable groundwater management and the importance of groundwater-surface water interaction, conjunctive use, and integrated water resources management. One interviewee emphasized that cooperation across all the entities (water districts, cities and county) is essential for implementing SGMA successfully.

### Governance and Representation

Respondents discussed a range of issues that they would recommend for consideration in forming one or more groundwater sustainability agencies. Key themes were keeping decisions local within the basin, and making sure that different users' interests are somehow balanced in groundwater management. Respondents respect local knowledge and control for water management and expressed concern about needing to participate in management decisions for other basins and about agencies or stakeholders from external jurisdictions making decisions about local groundwater. At the same time, some recognize a need for a regional perspective on water resources and land use; those with this perspective feel confident that regional considerations can blend with local decisions. Everyone acknowledges that the county government has an important role to represent the unincorporated areas of the County, in particular domestic well owners. Participants offer the following considerations for the voting structure and representation.

#### Potential Voting Structure and Representation in a GSA

- Balance agriculture, urban, city, and rural residential interests
- Provide for local control
- Consider that Sebastopol (100% reliance) and Rohnert Park rely more heavily on groundwater supply than other cities
- Protect groundwater supply interests of cities' that use groundwater as supplemental supply (peak and emergency)
- Consider that SCWA has pumping facilities in the Santa Rosa Plain groundwater basin only, not in Petaluma Valley or Sonoma Valley
- Avoid using the quantity of water use for representation since conserving water use is key
- Consider population in representation
- Allow for governing boards to appoint representatives (so representative could be elected official or an appointee). Each entity to decide who represents it.
- GSA Board should not mix staff and elected officials. Interviewees prefer that GSA board consist of elected or appointees of electeds. People cite the Water Advisory Committee / Technical Advisory Committee model as effective with policy arm for limits and potential fees.
- Consider rural domestic well owners: representation and participation, the large number of wells, and significant groundwater use.

- Some would like opportunity for agriculture and private water companies (like Cal American Water) to have a role in governance.
- Concern exists that agricultural interests, if involved in GSA, might overwhelm cities' interests.

#### Examples

Multiple interviewees suggested the Sonoma County Transportation Authority and the Sonoma County Water Agency's Water Advisory Committee / Technical Advisory Committee as successful models to examine and possibly emulate. One person suggested the North Bay Watershed Association. Interviewees repeatedly cited the Waste Management Agency as an example to avoid.

#### Costs

Interviewees from the agencies are concerned about costs and funding SGMA implementation. While SGMA authorizes the groundwater sustainability agency to levy fees, the agency is still subject to Proposition 218, potentially limiting the ability to raise funds. Entities that purchase water from the Sonoma County Water Agency to supply their customer base (water contractors) expressed concern about paying for groundwater planning more than once – through water purchases that fund SCWA and through cost sharing agreements for groundwater planning. The cities express commitment to continuing to fund groundwater planning, but would like other groundwater users (specifically in unincorporated areas) to contribute since substantial groundwater use occurs outside of city boundaries, and some cities only use groundwater for emergency and peak supply – it is a small part of their water budget.

#### County of Sonoma Role

Since the County is default agency under SGMA<sup>1</sup>, many interviewees believe that the County should take the lead in organizing SGMA implementation and seeking public input. The County has a stated commitment to sustainability and view groundwater as an element. The Board of Supervisors has the responsibility of representing both agriculture and domestic well owners in the unincorporated areas as well as city residents under SGMA. Some interviewees express concern about the County's ability to represent agricultural interests in the unincorporated areas. Most interviewees support the County representing rural residential well owners. The relationship between the Cities and the County is complex. As agencies, the Cities and County work together on a number of issues, and due to differing interests, some efforts have created tensions. These unrelated tensions sometimes affect attitudes about the role that the County should play in implementing SGMA.

#### Basin Advisory Panels and Public Input

Everyone recognizes the value that the existing basin advisory panels play in an advising on groundwater management. Interviewees express openness to relying on the basin advisory panels into the future in some capacity. Some interviewees strongly advocate that basin advisory panels continue because the panels have played a critical role for discussing and resolving groundwater management issues, reducing conflict in the groundwater basins. Some interviewees articulate concerns about challenges within the Santa Rosa Plain Basin Advisory Panel and limitations this places on effective collaboration.

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<sup>1</sup> Under SGMA, the County can opt out of GSA formation. If no agency in a basin steps forward to form the GSA, the state would intervene.

Stakeholders demonstrate a high level of expectation for public outreach and stakeholder involvement. Respondents urge expansive outreach to rural residential well owners and seeking guidance and input from basin advisory panels and the public on forming the groundwater sustainability agency.

### **Governance Options**

As part of the assessment, the facilitator and interviewees discussed possible configurations for the groundwater sustainability agency(s) within basins and across the three basins. Stakeholders articulated pros and cons of different options based on their understanding at the time.

#### **One GSA per Basin or 3 GSAs**

##### Pros

- + Provides for decision making at local level, reflects each unique basin

##### Cons

- GSAs might compete against one another for external funding
- Spreading resources too thin

Models: Existing BAP Structure

#### **Hybrid: One GSA per Basin (or 3 GSAs) that Coordinate or Share Staff and Resources**

This option was very popular among interviewees.

##### Pros

- + Provides for decision making at local level
- + Shares resources across basins
- + Allows for regional consideration on management issues

##### Cons

- GSAs might compete against one another for external funding

Models: Metropolitan Transportation Commission

#### **Centralized: 1 GSA in County for all three Basins**

##### Pros

- + Like simplicity and ease of setting up
- + Shares decision making across agencies with possibility of designating seats for particular agencies or interests groups
- + Shares resources and costs

##### Cons

- Governing board too big. Agency too big.
- Prefer decision-making at local level. Might miss the nuances of the local detail
- Concerned about GSA board representing all groundwater users' interests

Models: LAFCO

#### **Multiple GSAs/Basin**

No one expressed interest in having multiple GSAs within a basin

### **Important Qualities for a Groundwater Sustainability Agency**

In response to the facilitator's question, respondents articulated the following qualities for the agency:

- Political and technical credibility
- Strong technical capacity
- Track record of conducting similar activities
- Fairly represent local interests
- Willingness to leverage existing work (USGS studies and existing Groundwater Management Programs)
- Link responsibility between countywide surface water supply and basin groundwater supplies
- Equal representation
- Ratepayer considerations
- Efficiencies
- Cost effective

### **Other Evaluative Elements**

Interviewees recommend comparing costs, potential fees that structures and options would require.

Interviewees recommend creating a structure that can manage future basin designations as medium or high priority in the county

Consistent with SGMA, participants would like to evaluate the ability of the governance structure to protect groundwater supply interests for all beneficial uses / users.

Interviewees noted that SCWA has the technical and scientific capacity to develop the groundwater sustainability plan. SCWA is involved in groundwater management and conjunctive use. SCWA also provides regional perspective across basins and has been able to solicit funding from the state to assist existing groundwater programs.

Interviewees recommended repeatedly to keep the structure as simple as possible and to avoid cumbersome, costly bureaucracy while allowing more complex structures to evolve if needed in the future. Concern exists that establishing structure could be lengthy or difficult. Some worry that creating a joint powers authority would be very difficult to organize / agree to and cumbersome in implementation.

Some local agencies also express concern about the possibility of the groundwater sustainability agency usurping the control of local jurisdictions in decision-making.

## **Recommendations**

The Consensus Building Institute has developed these process recommendations through a participatory evaluation process, sharing preliminary interview findings with staff of the GSA-eligible agencies to then design a recommended process. The goal of the proposed process is to form groundwater sustainability agencies in the basins that have widespread support of the eligible agencies, stakeholders, and the general public.

## Anticipated Discussion Topics for Decision-Making on GSA Formation

Based on the interviews, surveys and discussions, the parties will need to discuss the following topics to reach a successful conclusion on GSA formation.

- *Decision-making framework:* Agree on how decisions will be made at a staff level and sequencing for governing board consideration and final approvals.
- *Principles for developing governance options:* Serve as a tool to demonstrate intent and help others understand how the GSA-eligible agencies will work together.
- *GSA authorities and responsibilities:* Clarify the authorities and responsibilities that the law establishes.
- *Governance structures and options:* Explore the governance structure options and necessary legal agreements necessary to support successful formation and implementation.
- *Criteria for evaluating options:* Use to evaluate, weigh and compare options using eligible entity and stakeholder interests as basis of criteria.
- *Legal documents for GSA formation:* Craft the legal documentation of all agreements.
- *Communication and outreach:* Develop an outreach strategy to inform all beneficial users of groundwater and the public at large.
- *Costs:* Consider the costs of forming and operating the groundwater sustainability agency and developing a funding and finance plan and associated policies.
- *Timeframe for GSA formation:* Monitor and comply with state-mandated deadlines.

## Process Overview

The diagram outlines the recommended process for GSA(s) formation in Sonoma County. In summer 2015, staff of the GSA-eligible agencies began meeting to understand and explore options to comply with SGMA. In the summer and fall of 2015, staff would work together to develop governance options that might be appropriate for the basins, given the existing groundwater programs and based on the interests of the agencies and stakeholders in the basins. During fall 2015, the County and the Sonoma County Water Agency, in cooperation with the other GSA-eligible entities, would host public workshops to increase the public's understanding of SGMA and share information about potential options for complying with SGMA in the basins. Additional outreach activities would also occur, including informational materials and a web site. Also some GSA-eligible agencies would likely provide briefings to governing boards during regularly scheduled meetings, all of which are open to the public and would serve as another outreach vehicle.

While outreach was occurring, the GSA-eligible entities would continue discussing the details of GSA governance options, exploring options in more depth over time. These discussions would benefit from the outreach process yielding new insights and potential concerns that staff can then incorporate into discussions.

The California Department of Water Resources used its Bulletin 118 to establish the basin boundaries. If a basin wishes to change its boundary, the responsible entity must submit an application to the Department of Water Resources between January and March 2016. To that end, the GSA-eligible entities would decide on this issue by December 2015 to ready the application.

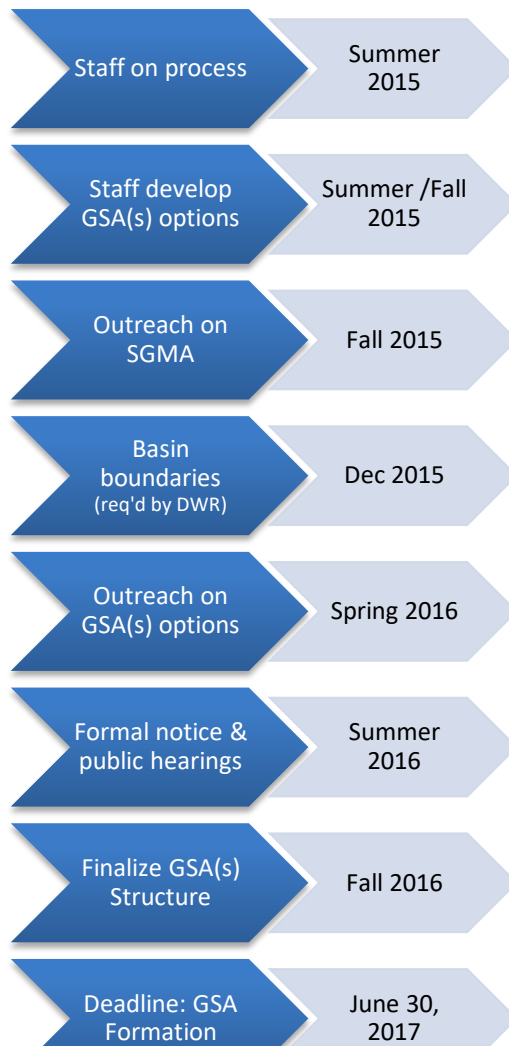




## Proposed Process Overview

**Anticipated Discussion Topics for Decision-Making on GSA Formation**

- Decision-making framework
- Principles for developing governance options
- GSA authorities and responsibilities
- Governance structures and options
- Criteria for evaluating options
- Legal documents for GSA formation
- Communication and outreach
- Costs
- Timeframe for GSA formation



By spring 2016, the goal would be for staff to have recommendations on the GSA(s). A robust outreach program on the recommendations would occur during the spring. Assuming no major challenges at that point, the responsible agency(s) would issue one or more formal notices (one per GSA), as SGMA requires, and hold the necessary public hearing. Contingent on the outcome of the public hearing, the governing boards would then direct staff to finalize the GSA structure(s) and notify the State of California of its formation.

### Other Important Considerations

**Government-to-government contact with the Lytton Rancheria and Graton Rancheria:** The County of Sonoma is the appropriate body to initiate formal contact with the tribes in the basins to discuss SGMA. Initial outreach to the tribes has already occurred.

**Dry Creek Tribe Land Ownership in Petaluma Valley Basin:** The Dry Creek Tribe owns land in the Petaluma Valley groundwater basin; however, the land is not currently in trust.

**Disadvantaged Communities:** One stakeholder suggested to investigate water quality issues on wells in Southwest Santa Rosa - part of it is Roseland and North of Hearn, south of Highway 12, east of Wright Road and west of Highway 101.

**Outreach Strategy:** The GSA-eligible entities are putting together an outreach strategy, including briefing governing boards at public meetings, holding public workshops, communicating with the Basin Advisory Panels, and general information on a web site.

## Interviews Completed and Survey Information

### GSA-eligible Entities

Valley of the Moon Water District  
 City of Cotati  
 City of Petaluma  
 City of Rohnert Park  
 City of Santa Rosa  
 City of Sebastopol  
 City of Sonoma  
 Town of Windsor  
 North Bay Water District  
 Sonoma County Water Agency  
 County of Sonoma / PRMD

### Also Interviewed

Cal American Water Company  
 Russian River Keeper – Don McEnhill  
 Sonoma County Farm Bureau – Tito Sasaki  
 Sonoma County Water Coalition Members: Rue Furch,  
 Stephen Fuller-Rowell & Jane Nielson  
 Sonoma Resource Conservation District – Kara  
 Heckert  
 United Winegrowers – Group interview

### Group Discussion

Santa Rosa Plain Basin Advisory Panel  
 Sonoma Valley Basin Advisory Panel

### 36 Surveys Submitted

Basin Advisory Panel members, state and federal agencies, and non-governmental organization representatives invited to participate in survey.



## About the Consensus Building Institute and Gina Bartlett

Founded in 1993, the Consensus Building Institute improves the way that community and organizational leaders collaborate to make decisions, achieve agreements, and manage multi-party conflicts and planning efforts. A nationally and internationally recognized not-for-profit organization, CBI provides collaborative problem solving, mediation and high-skilled facilitation for state and federal agencies, non-profits, communities, and international development agencies around the world. CBI senior staff are affiliated with the MIT-Harvard Public Disputes Program and the MIT Department of Urban Studies and Planning. Learn more about CBI at: [www.cbuilding.org](http://www.cbuilding.org)

Gina Bartlett is a senior mediator at CBI. She has mediated many complex policy issues related to water resources, land use and natural resources over the last 20 years. She is on the national roster of the U.S. Institute for Environmental Conflict Resolution and has a Master's degree in Conflict Analysis & Resolution. Ms. Bartlett previously conducted an assessment and facilitated development of the Sonoma Valley and Santa Rosa Plain groundwater management plans. You can learn more about Gina at: <http://www.cbuilding.org/about/bio/gina-bartlett> (Email: [gina@cbuilding.org](mailto:gina@cbuilding.org) and Tel: 415.271.0049)

**Appendix 3-A**  
**Water Year Type Classification for Petaluma Valley,  
Santa Rosa Plain, and Sonoma Valley**

## Water Year Type Classification for Petaluma Valley, Santa Rosa Plain, and Sonoma Valley

Monthly PRISM precipitation records from each basin were combined to create a single precipitation record. The 3 locations are

PRISM Location	Groundwater Basin	Representative Station
38.5068,-122.8029	Santa Rosa Plain	Santa Rosa Airport
38.2473,-122.6250	Petaluma Valley	Petaluma Airport
38.2992,-122.4553	Sonoma Valley	Vallejo House

These three records were first averaged for each water year. These are shown in Figure 1 for the period from 1895 to January 2020. The precipitation records for the 3 basins are highly correlated (Figure 2). This means aggregation of the 3 records will not introduce biases into the synthesized record. It also means that a single site could also be used as a surrogate for all 3. This approach does not account for the original biases that exist within the original datasets. These biases may exist because PRISM monthly estimates do not match actual recorded values for a given station.

A rolling weighted average was applied to the combined yearly precipitation record. This is done because groundwater recharge has a latency to precipitation, infiltration and other processes. We used a 3 year rolling window. Figure 3 shows the filtered signal using the same filter that is applied to the water year records. The filter applies weights so that the current year has the most effect on the moving average, and the two previous have lesser effects.

To classify water years in to hydrologic types, the following percentile classifications were applied. These values are based on the percentiles of the entire record and were used to classify the 3-year rolling average values (Table 1).

Table 2 Shows the number of water types based on this classification. The combined precipitation record, water year types, and rolling average is shown if Figure 4.

Percentile of Entire Record	Water Year Type	Lower Bound (inches)	Upper Bound (inches)
0 - 20%	Very Dry	11.2	18.5
20- 40%	Dry	18.5	22.7
40-60%	Normal	22.7	32.3
60-80%	Wet	32.3	41.5
80-100%	Very Wet	41.5	56.1

Percentile of Entire Record	Water Year Type	Number of Water Year Types
0 - 10%	Very Dry	4
10- 30%	Dry	20
30-70%	Normal	65
70-90%	Wet	34
90-100%	Very Wet	2

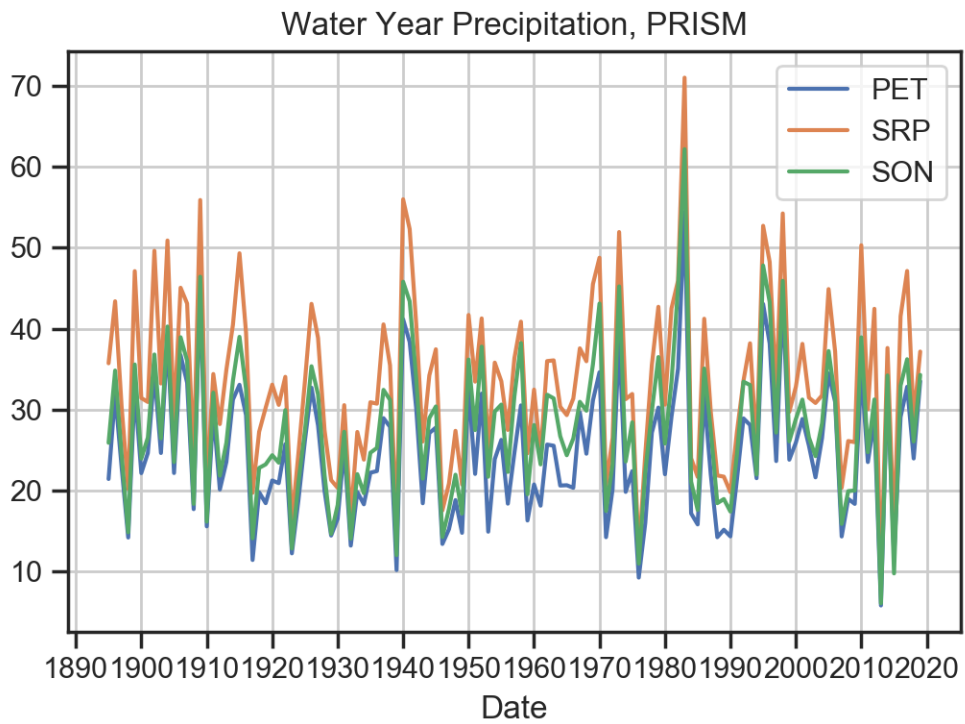


Figure 1 Water year precipitation for each basin

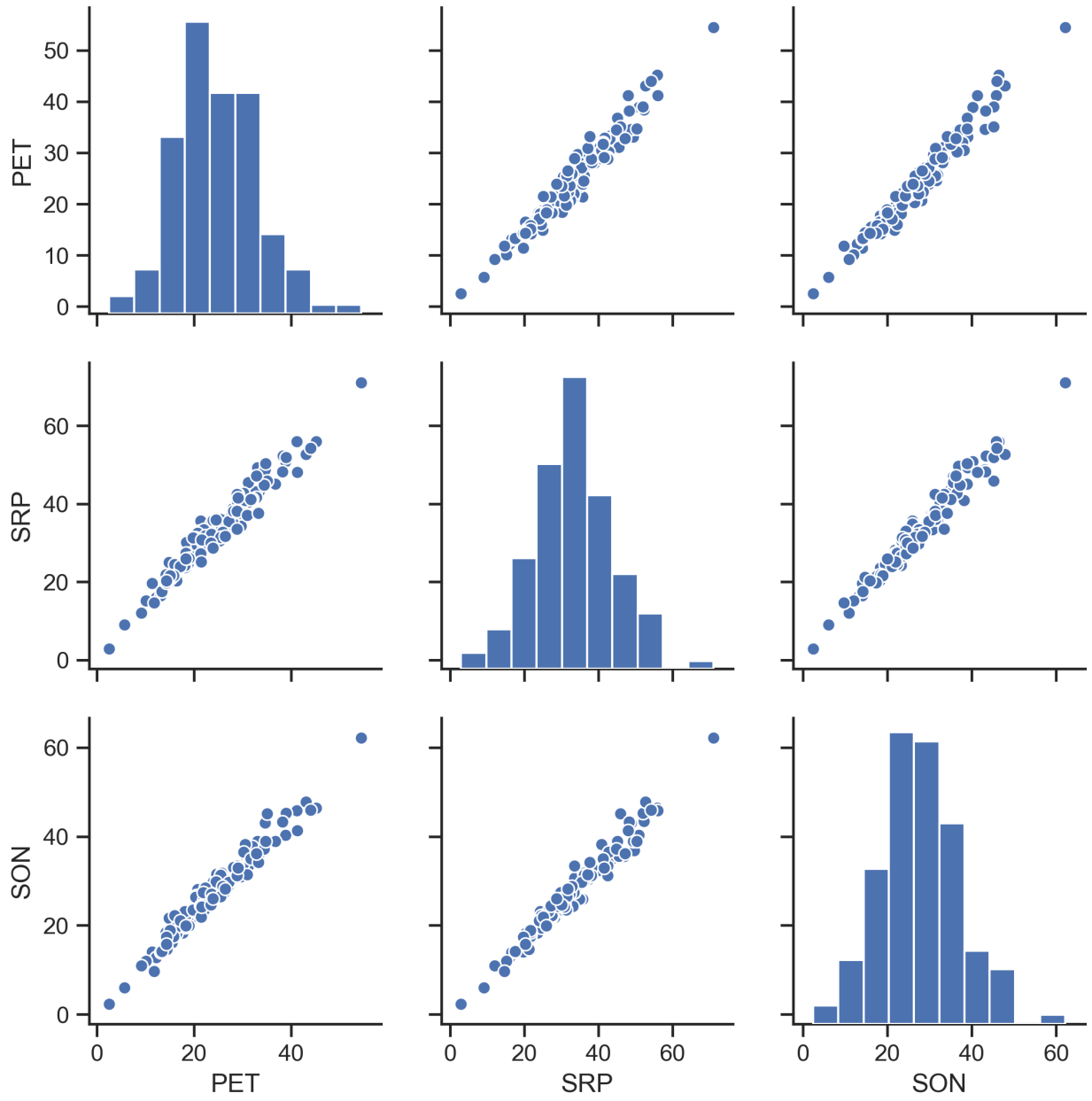


Figure 2 pairwise relationships for the 3 subbasin records



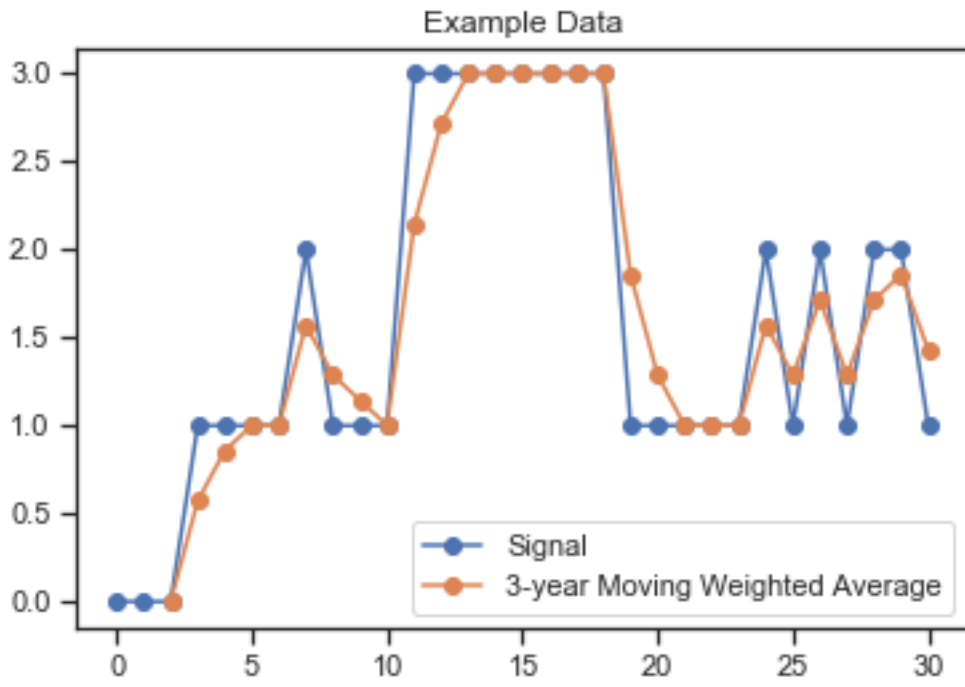


Figure 3 Example data showing signal and filtered response timeseries

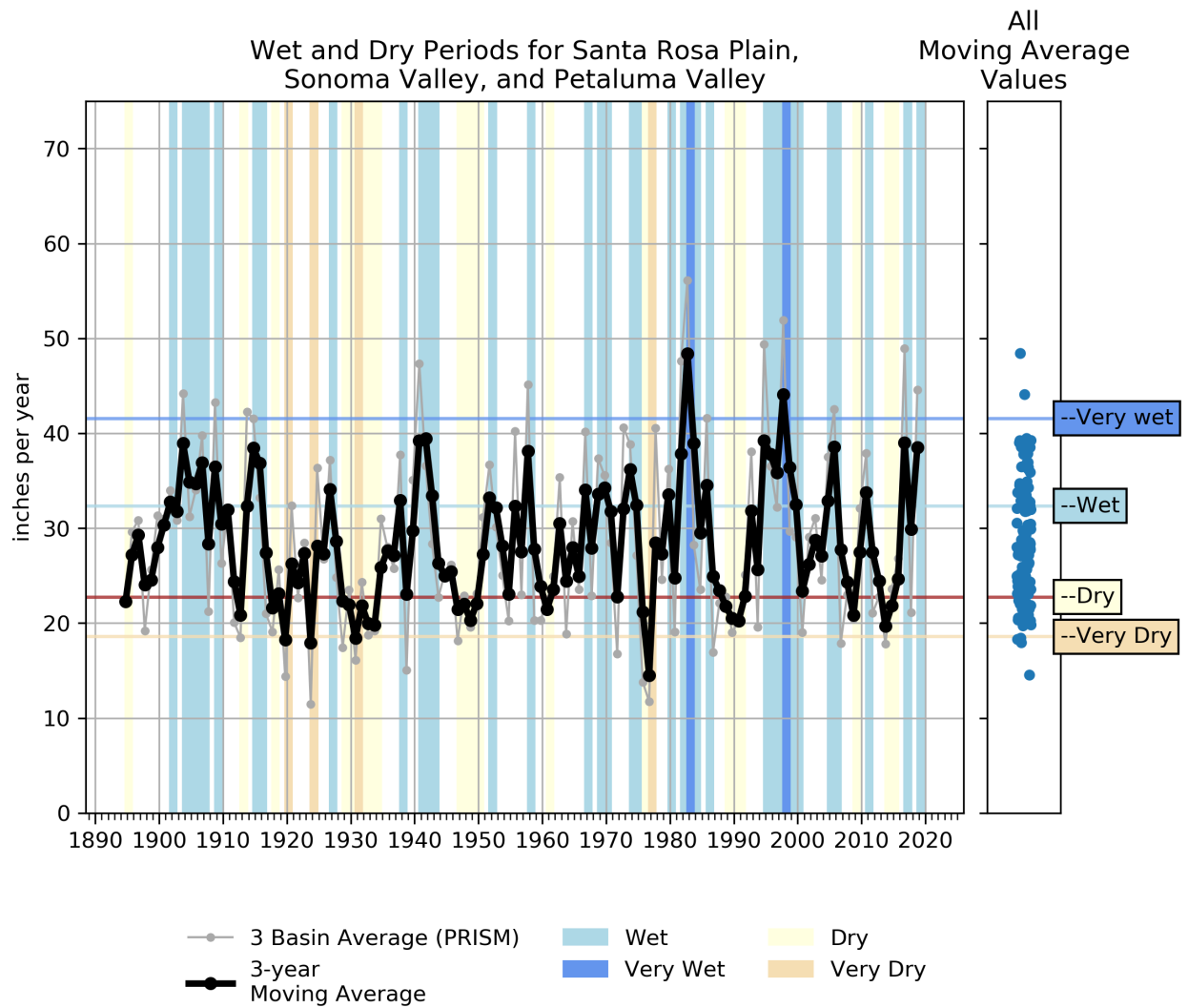
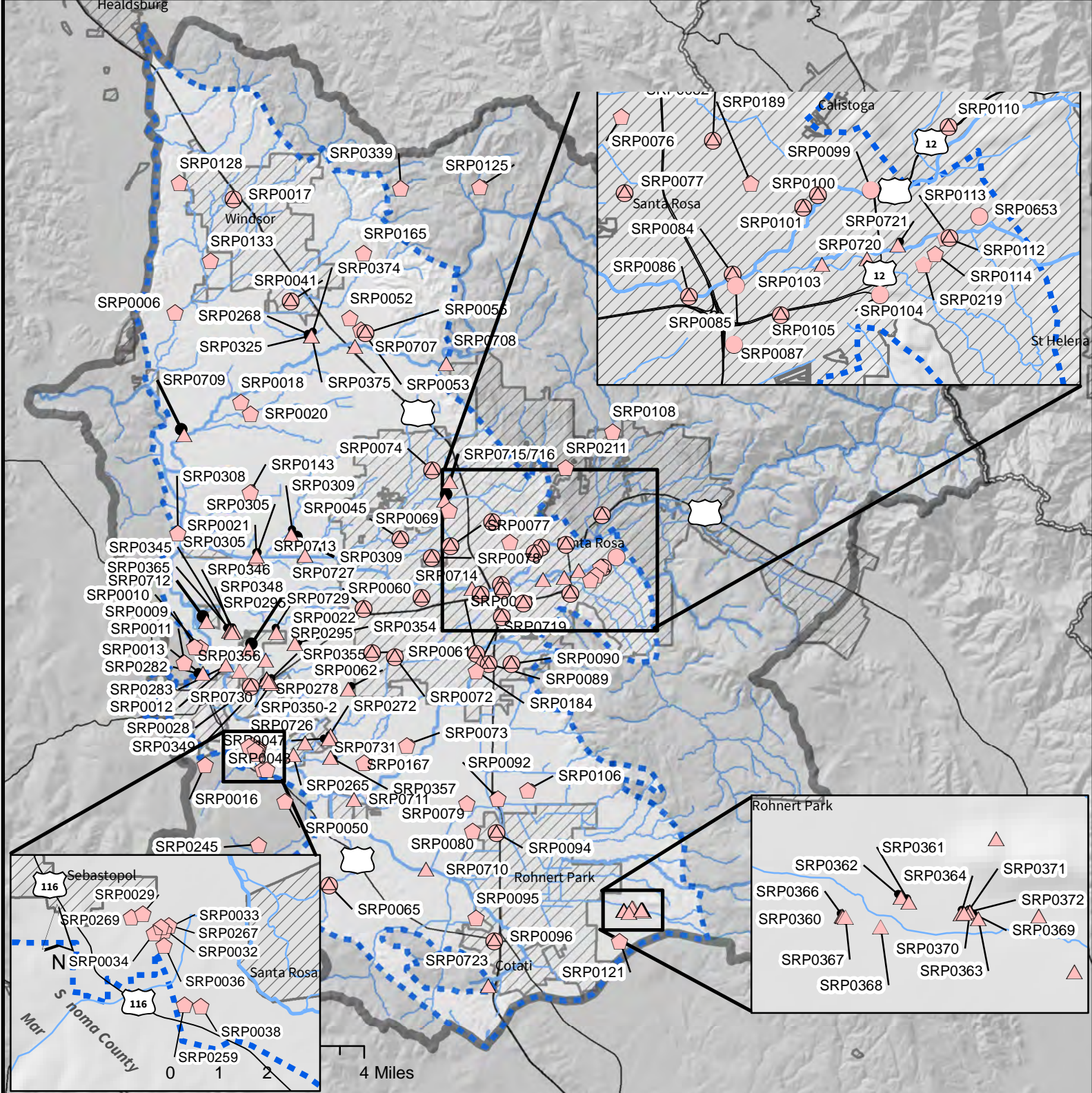


Figure 4 Water Classifications for Santa Rosa Plain, Sonoma Valley, and Petaluma Valley

**Appendix 3-B**  
**Groundwater Monitoring Well Hydrographs**



**Figure 5-1a Existing Groundwater-Level Monitoring Network - Shallow Aquifer System**

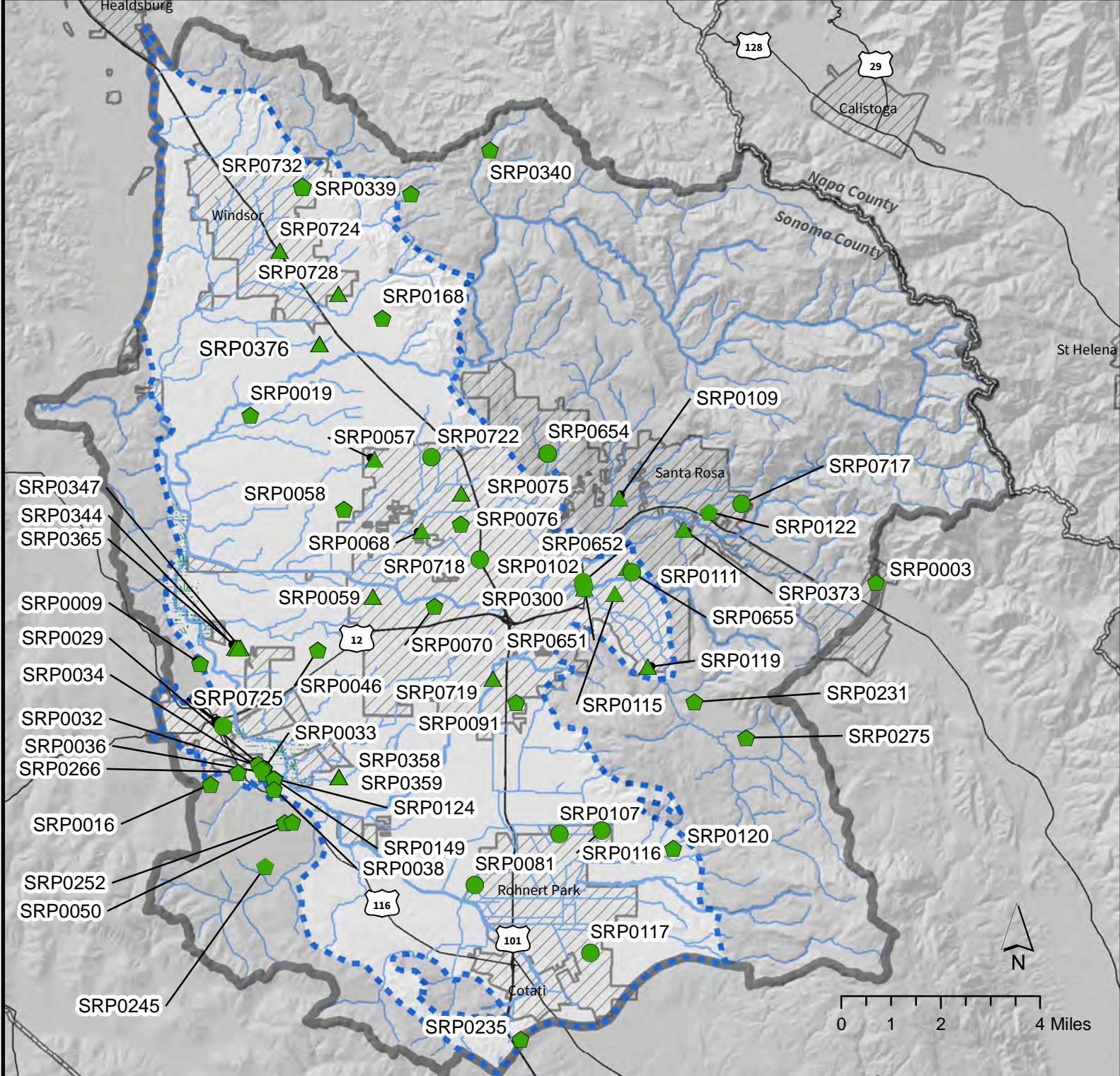
- |                                       |                                  |
|---------------------------------------|----------------------------------|
| Contributing Area Watershed           | Dedicated Monitoring Wells       |
| Santa Rosa Plain Groundwater Subbasin | Monitored Municipal Supply Wells |
| Major Rivers and Creeks               | Volunteer/Other Wells            |
| Streams                               | Environmental Monitoring Wells   |
| City Footprints                       |                                  |

**Data Sources:**  
**Groundwater Basins** - California Department of Water Resources, Bulletin 118  
**Major Rivers and Creeks** - Department of Water Resources  
**Streams** - Sonoma County Central GIS and Sonoma Water









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**Figure 5-1b Existing Groundwater-Level Monitoring Network - Deep Aquifer System**

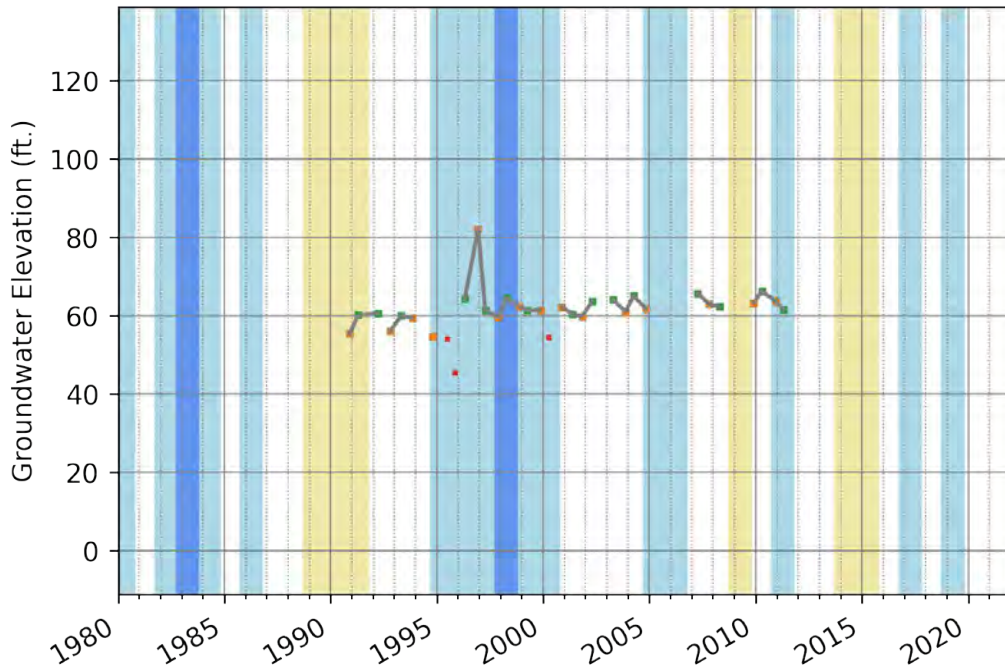
	Contributing Area Watershed		Dedicated Monitoring Wells
	Santa Rosa Plain Groundwater Subbasin		Monitored Municipal Supply Wells
	Major Rivers and Creeks		Volunteer/Other Wells
	Streams		
	City Footprints		

**Data Sources:**  
**Groundwater Basins** - California Department of Water Resources, Bulletin 118  
**Major Rivers and Creeks** - Department of Water Resources  
**Streams** - Sonoma County Central GIS and Sonoma Water

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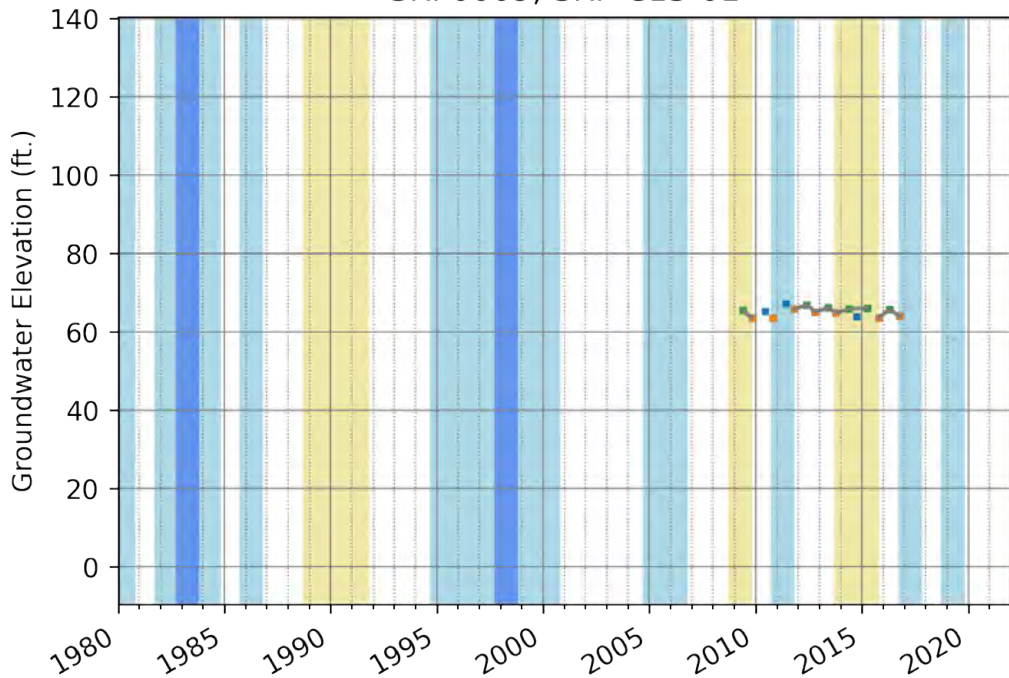


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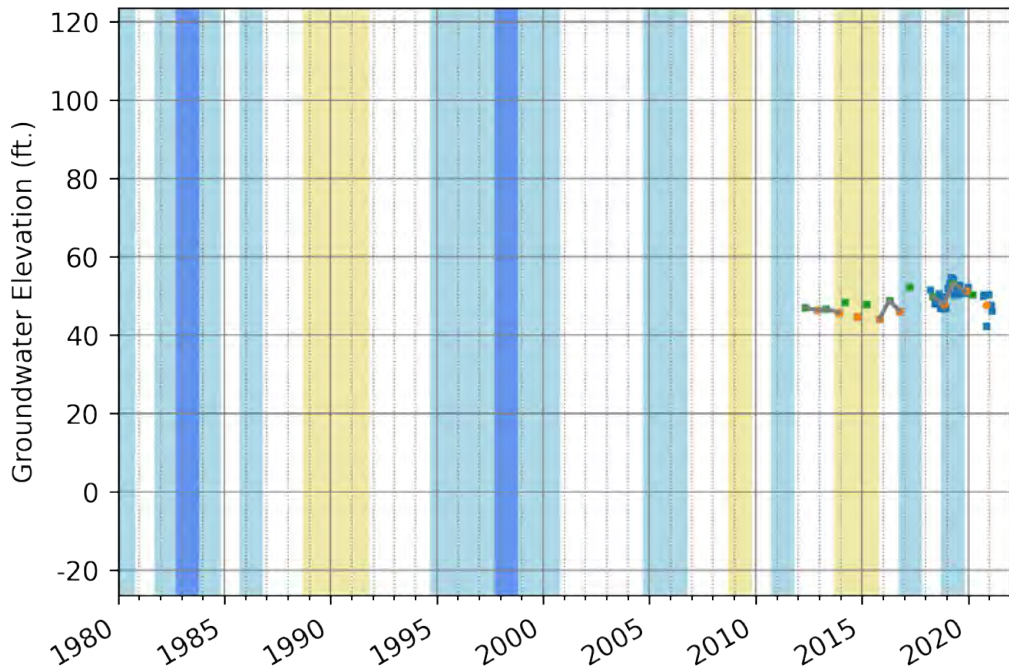




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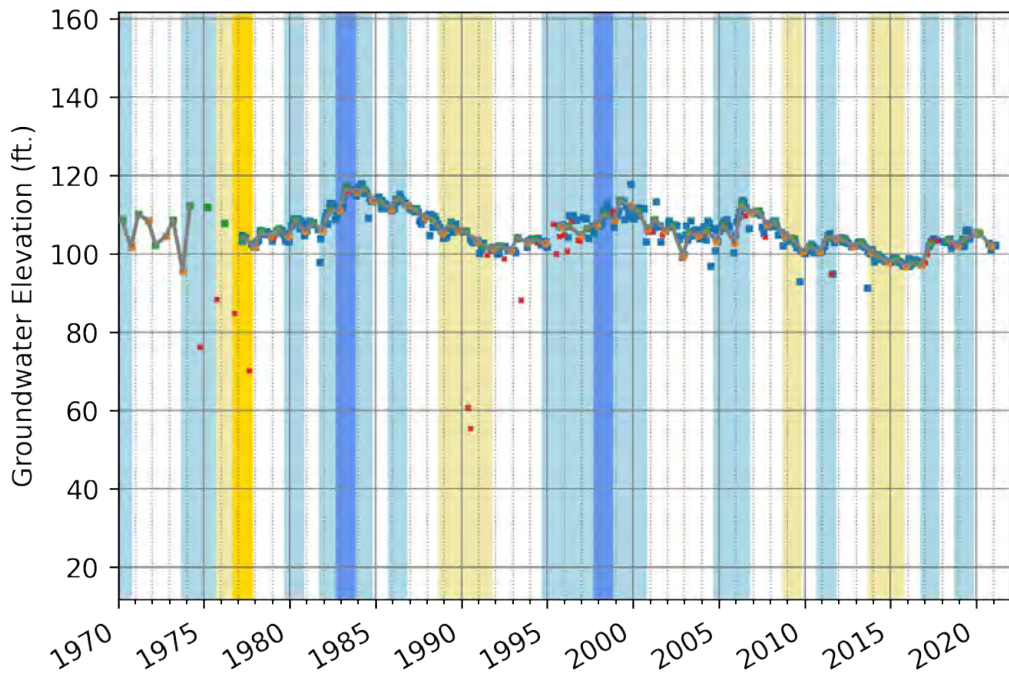


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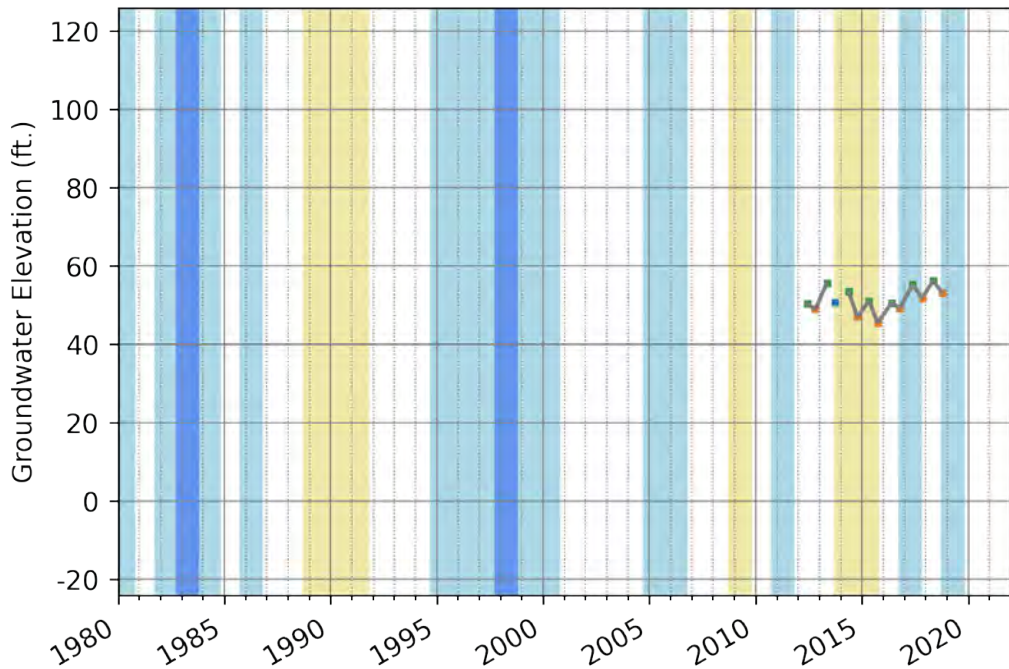




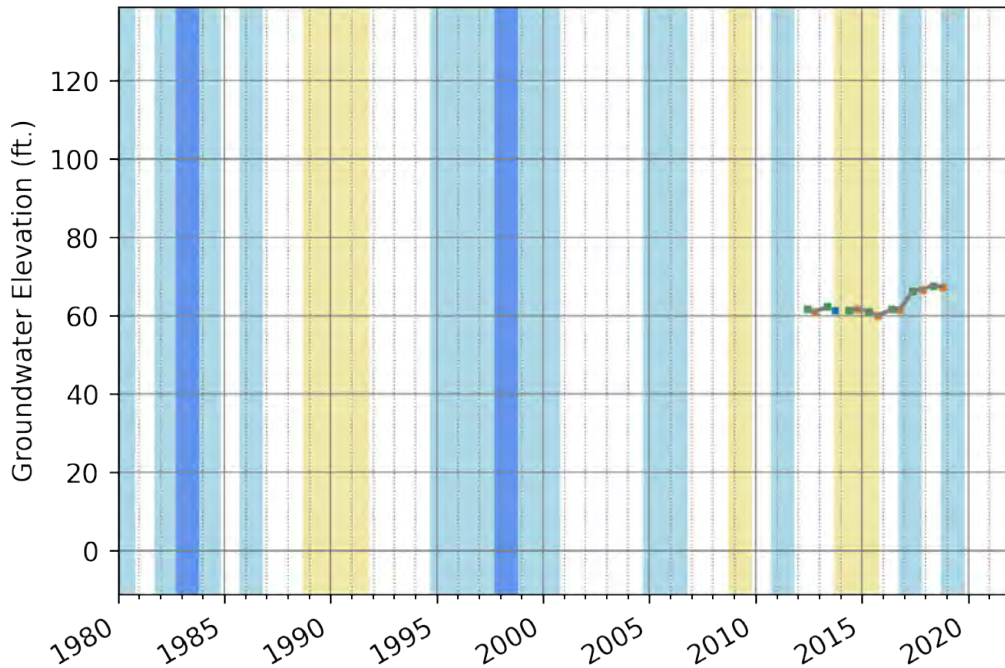
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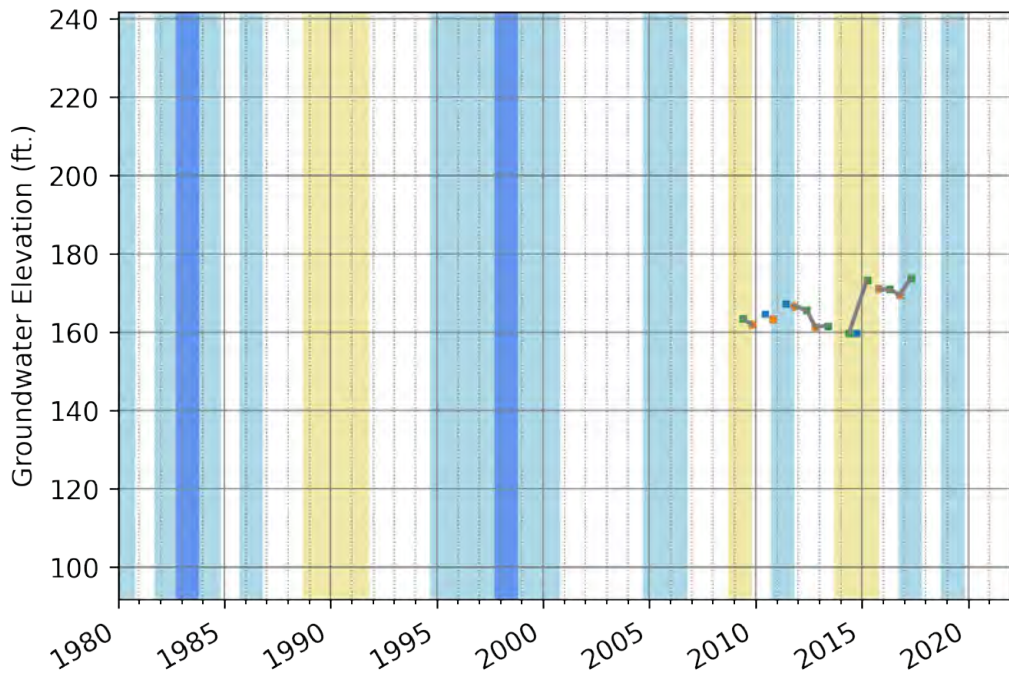
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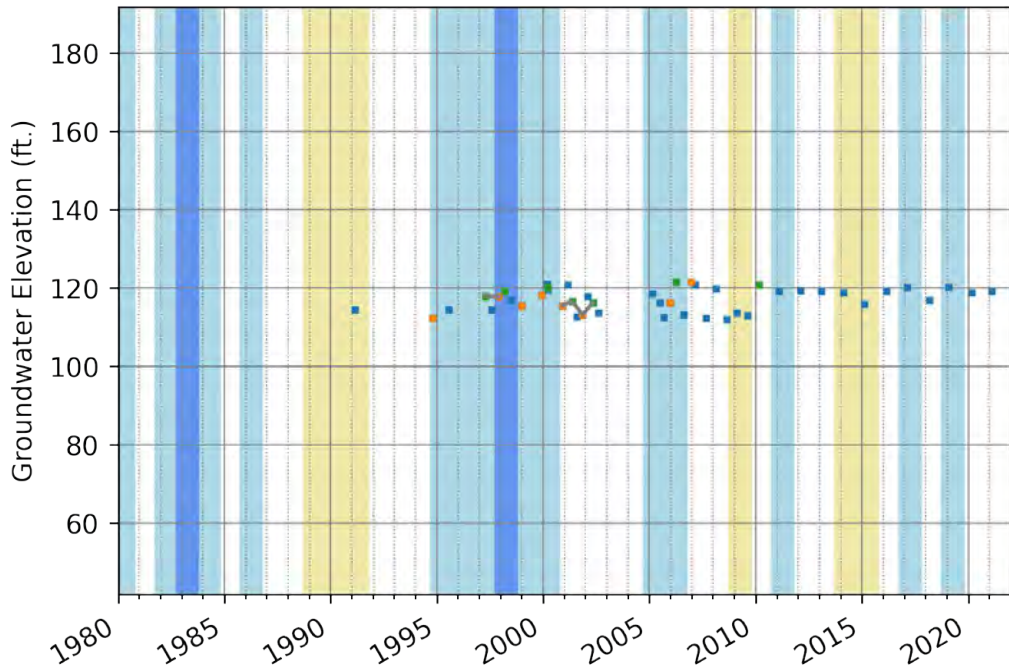
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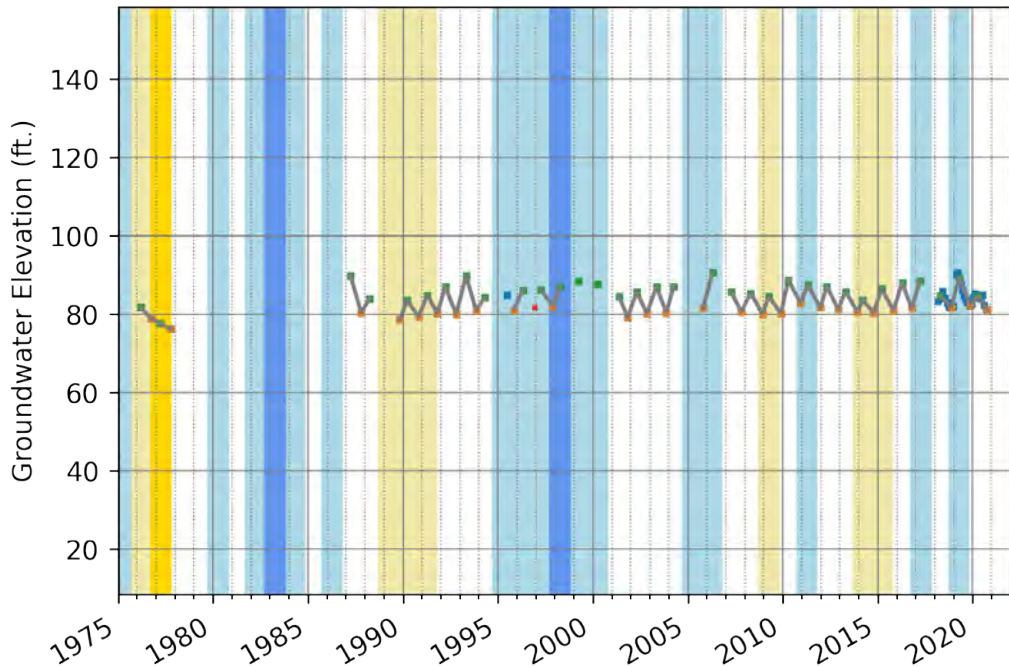
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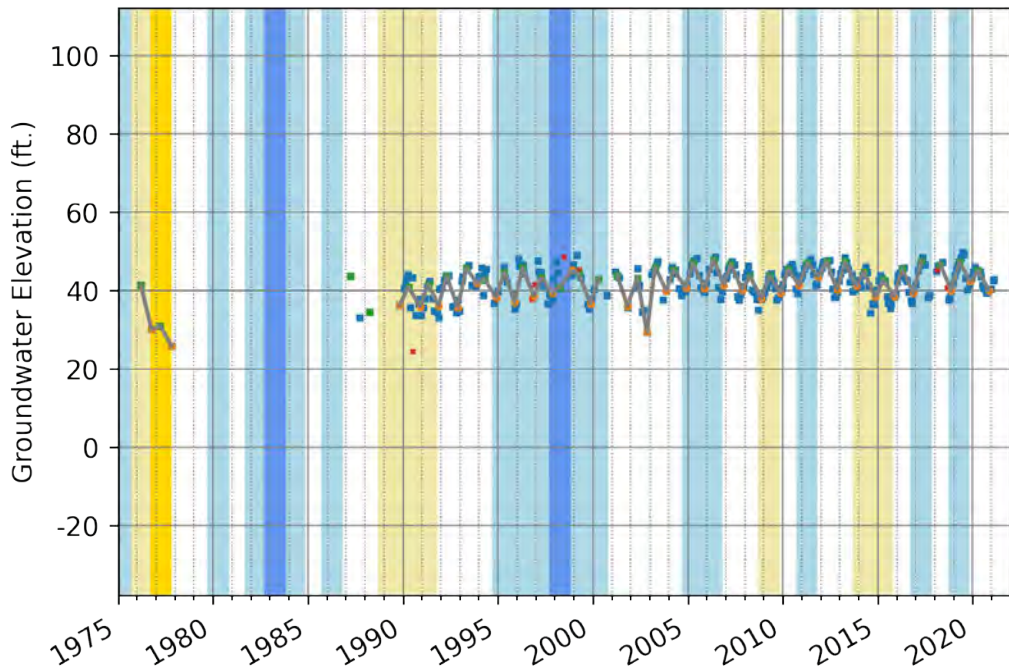


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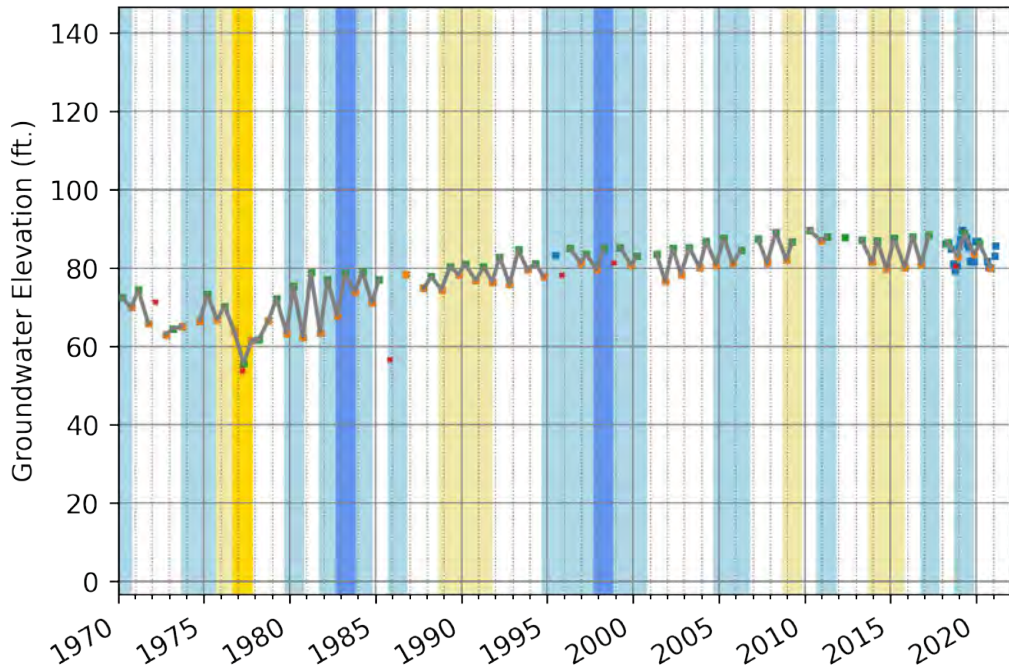




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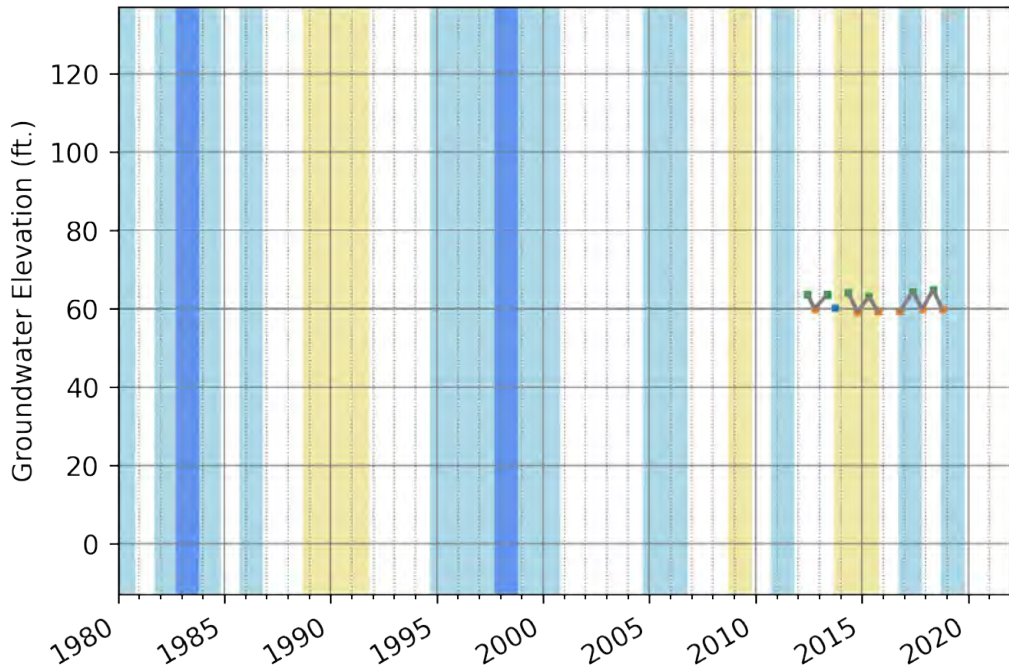


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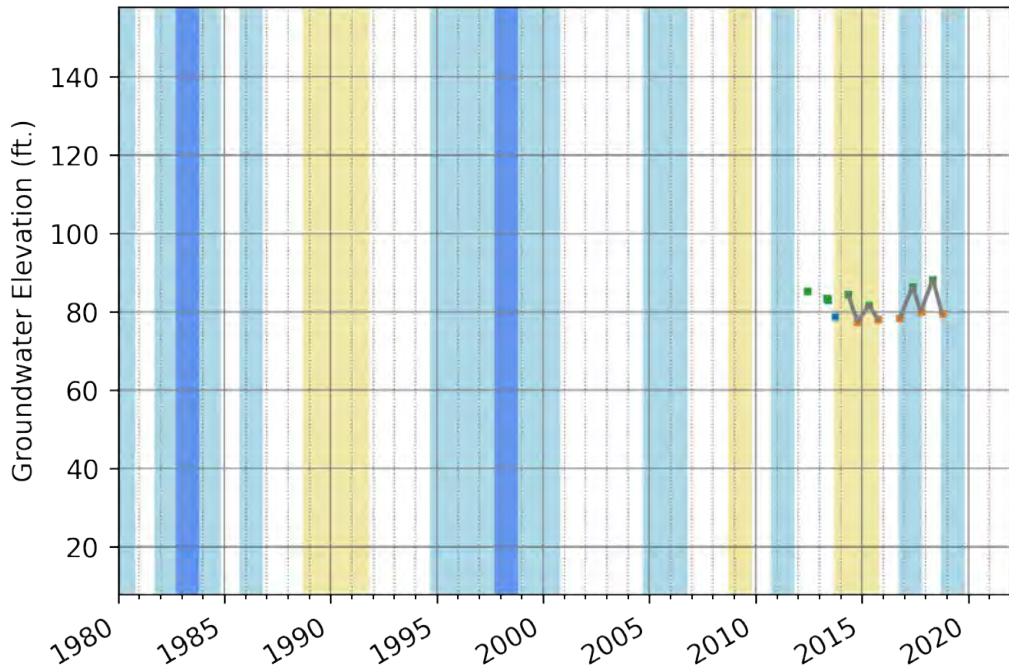




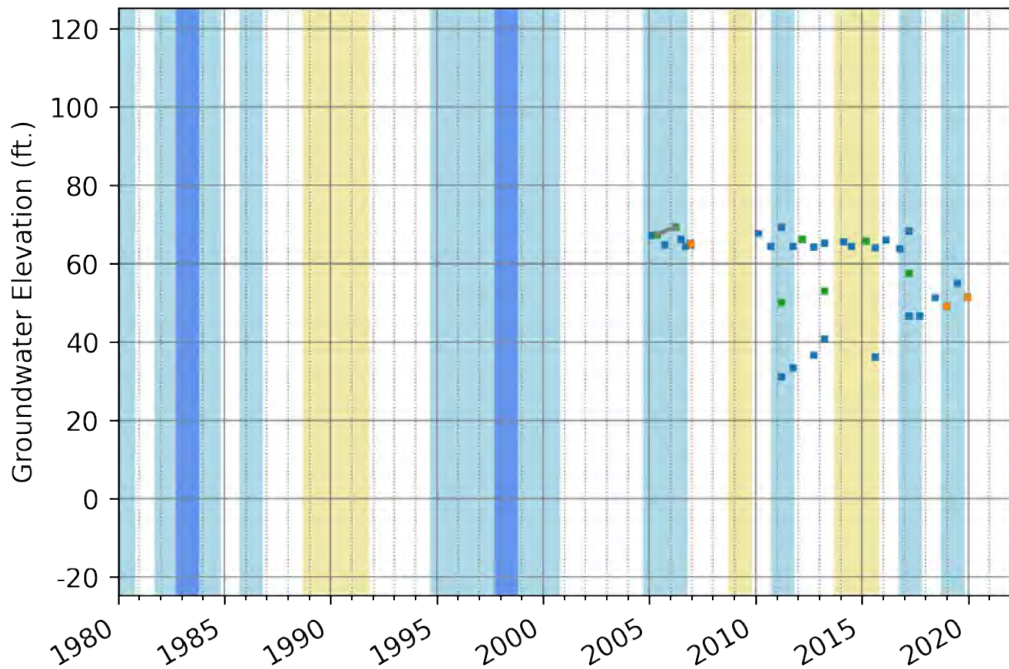
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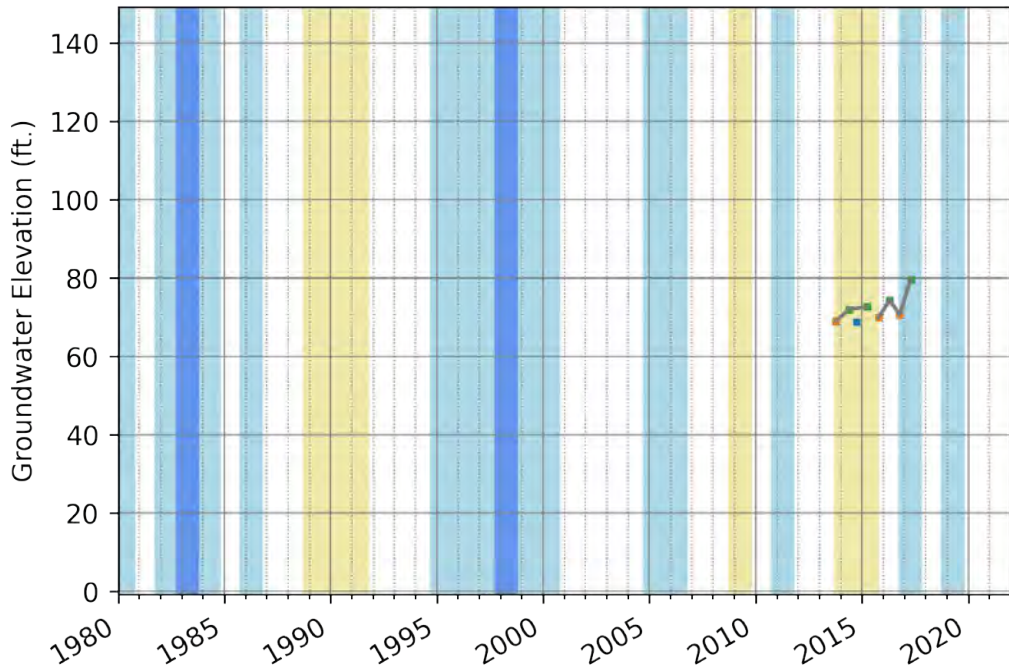
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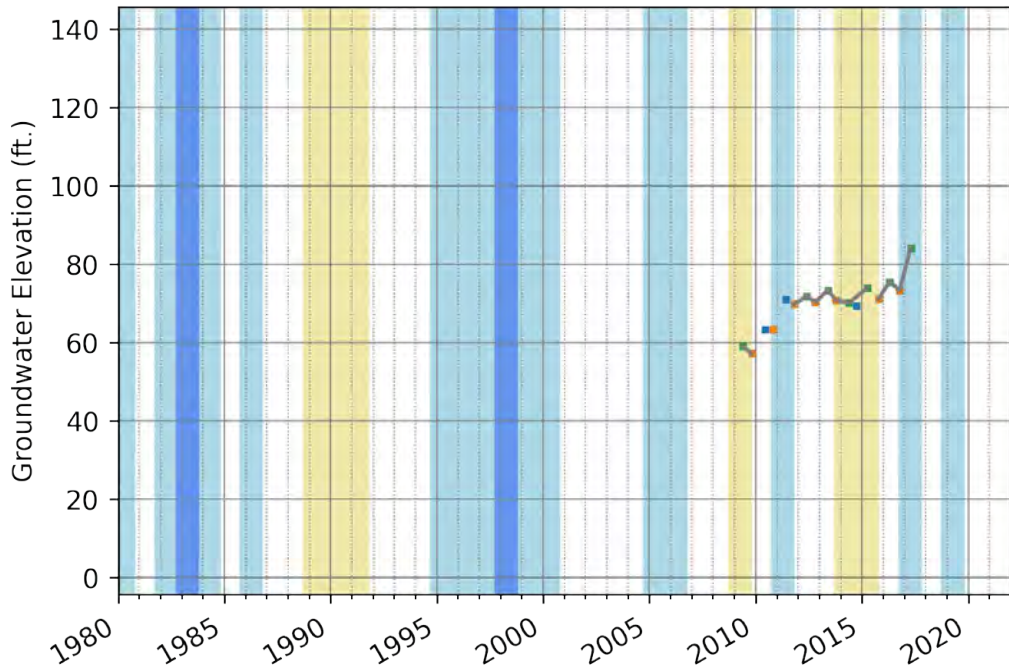
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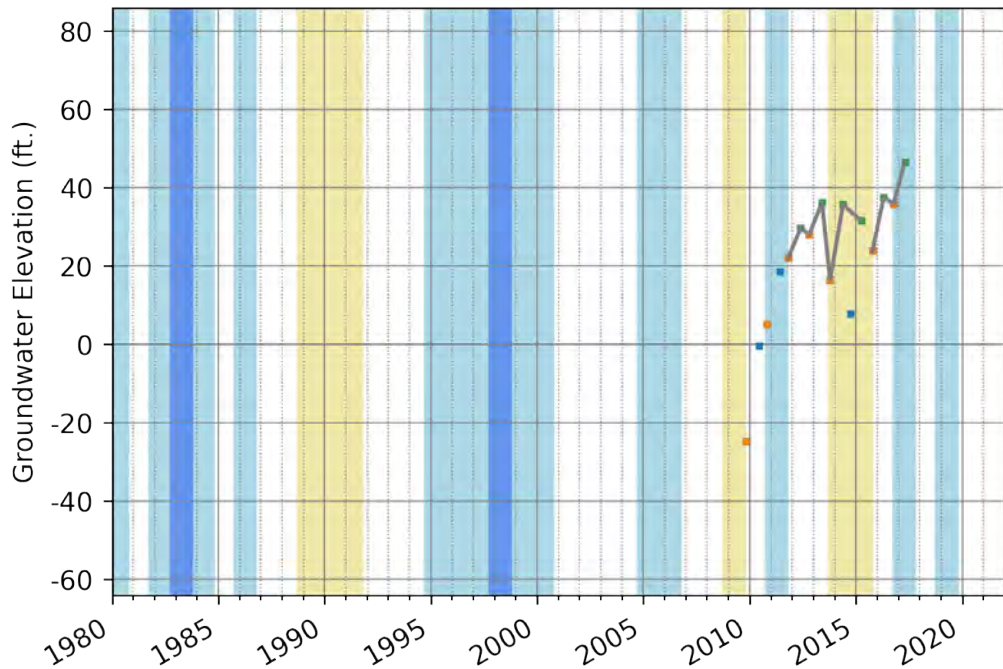
# SRP0029, SRP-D15-01



# SRP0030, SRP-D15-02

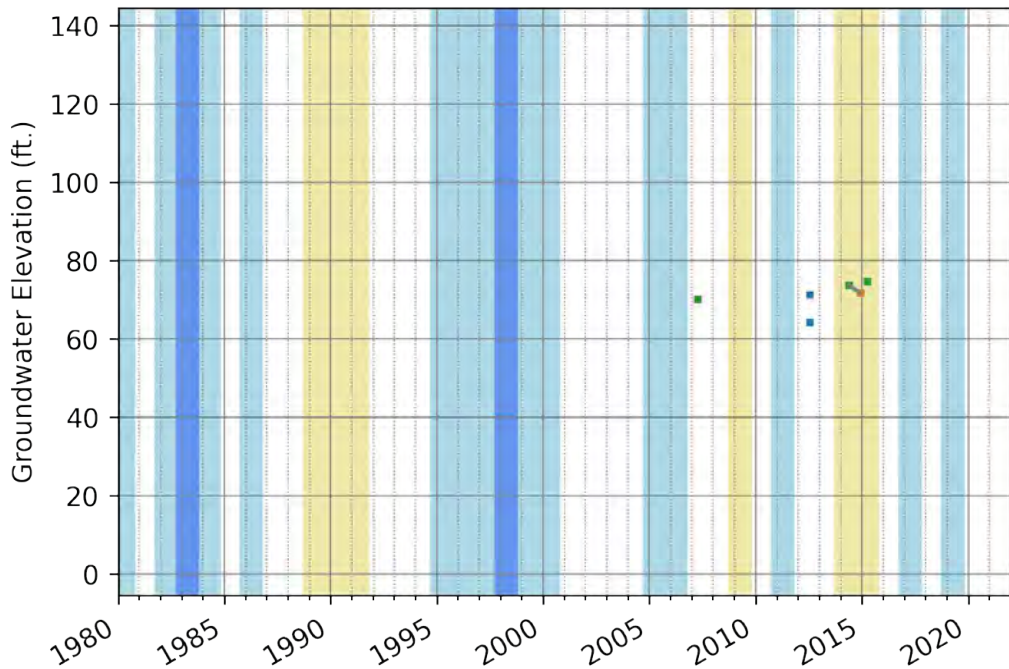


# SRP0031, SRP-D15-03

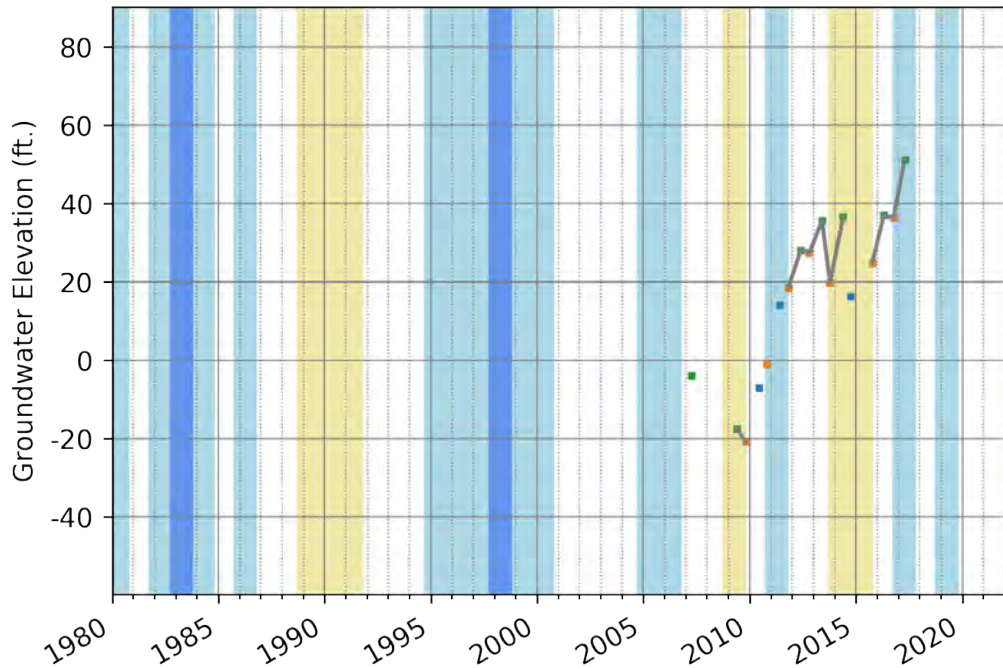




# SRP0032, SRP-D15-04

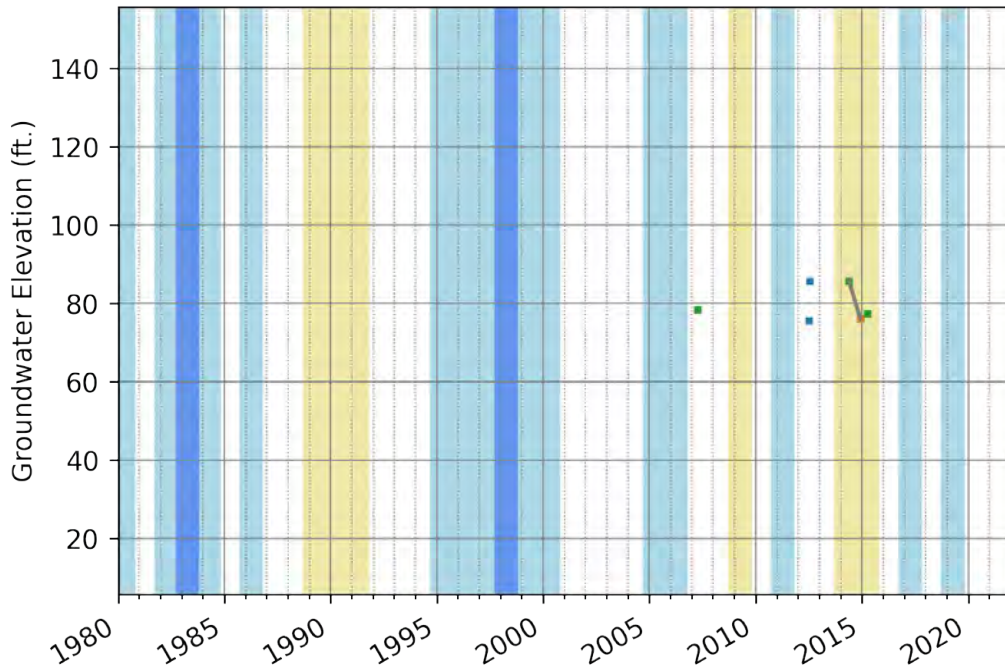


# SRP0033, SRP-D15-05

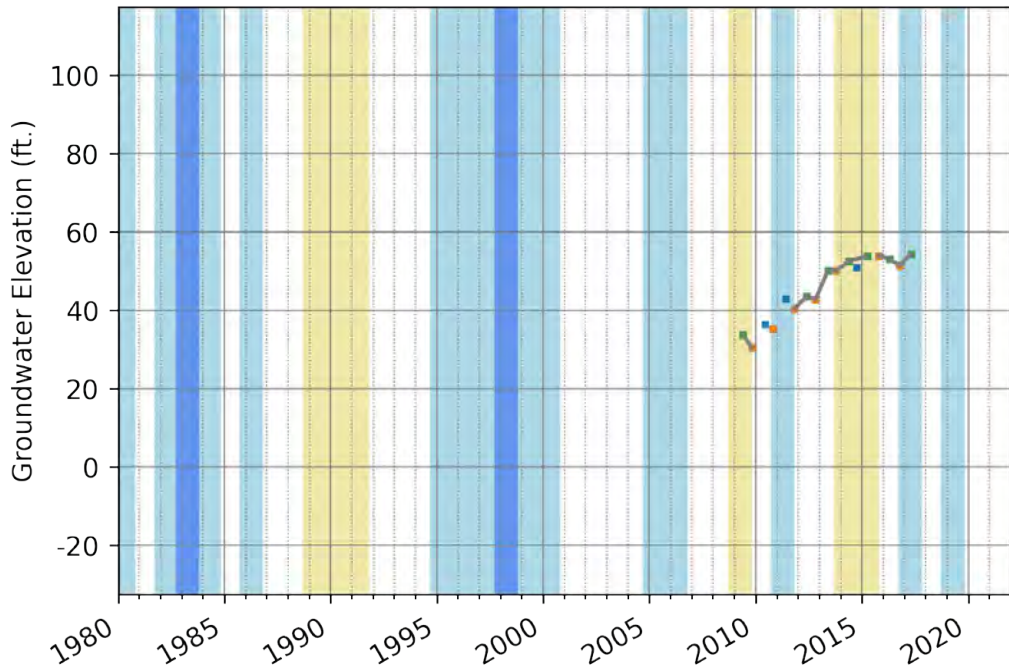




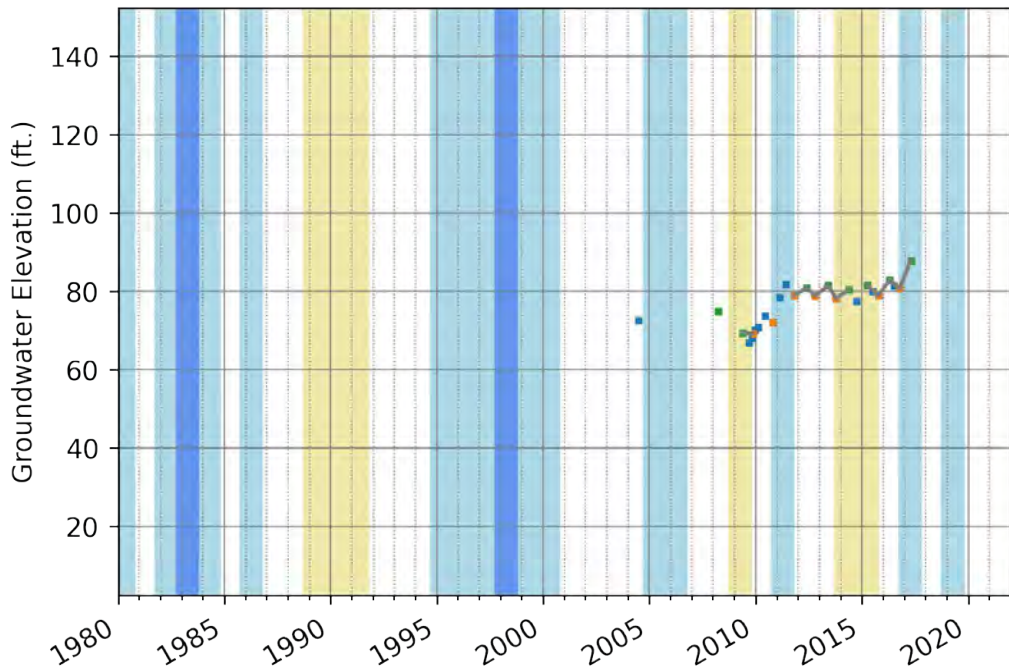
# SRP0034, SRP-D15-06



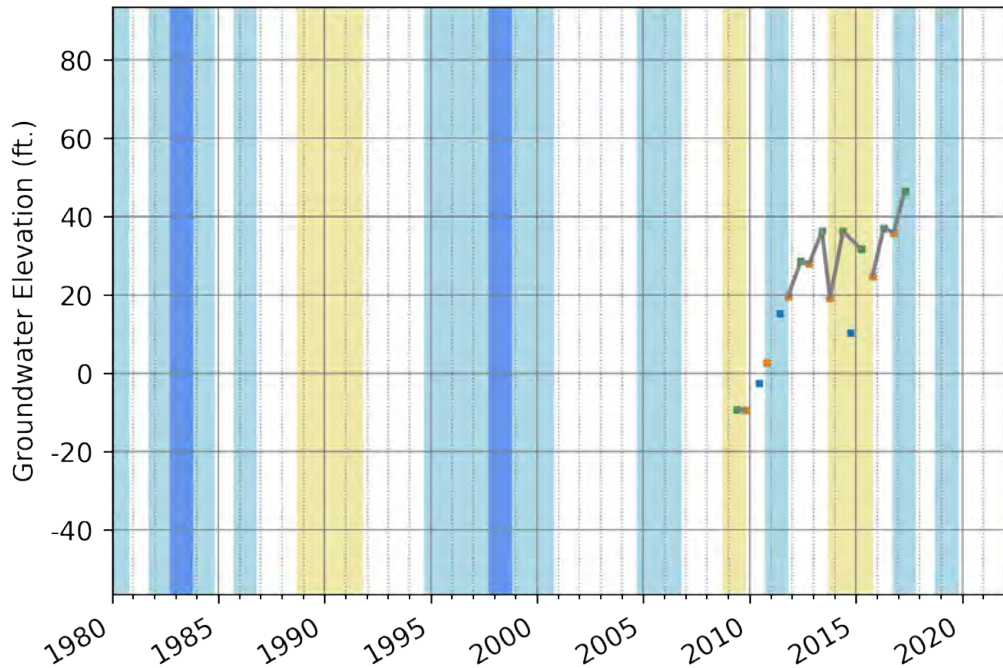
# SRP0035, SRP-D15-07



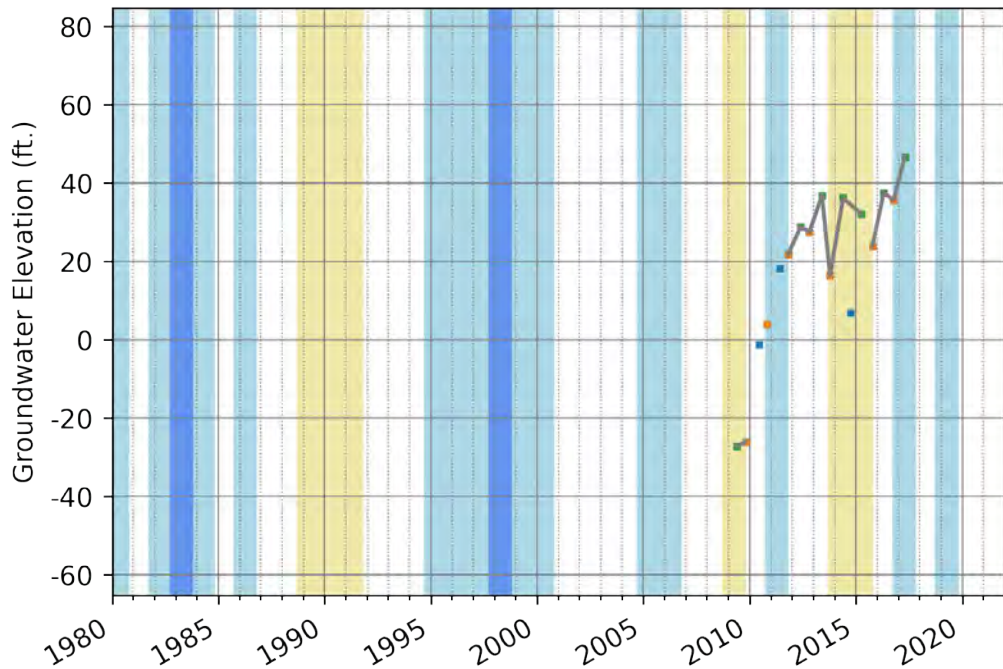
# SRP0036, SRP-D15-08



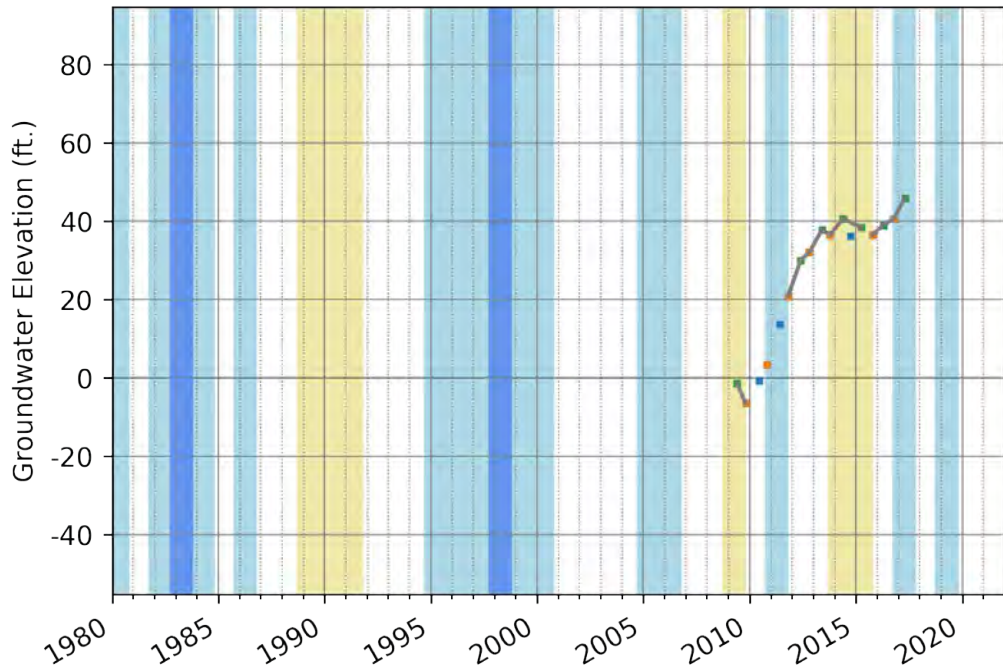
# SRP0037, SRP-D16-01



# SRP0038, SRP-D16-02

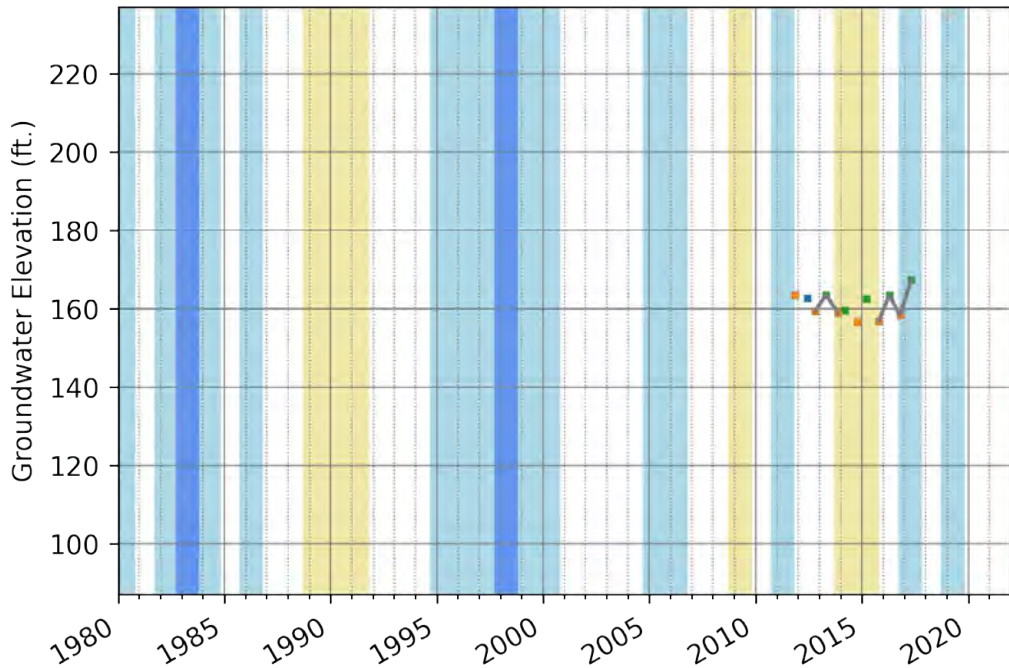


# SRP0039, SRP-D16-03

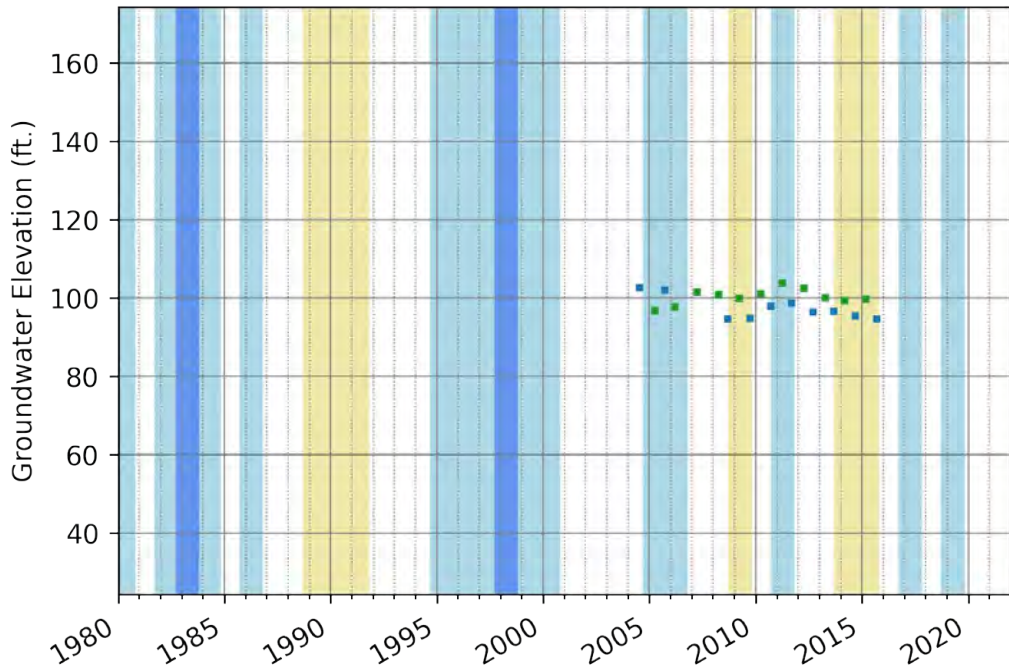




# SRP0040, SRP-D17-01

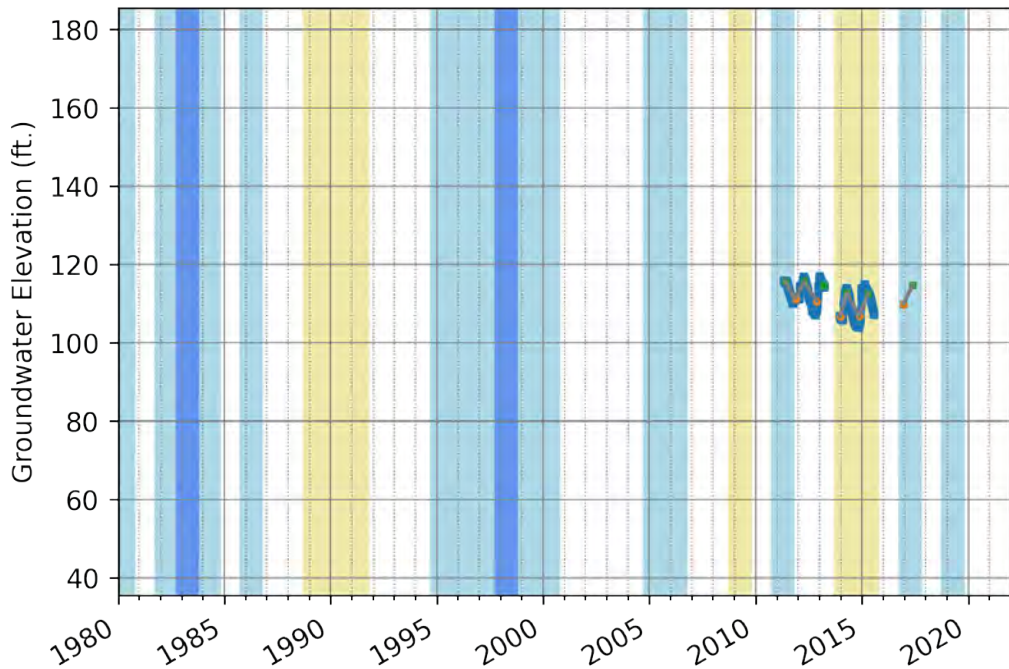


# SRP0041, SRP-E06-01

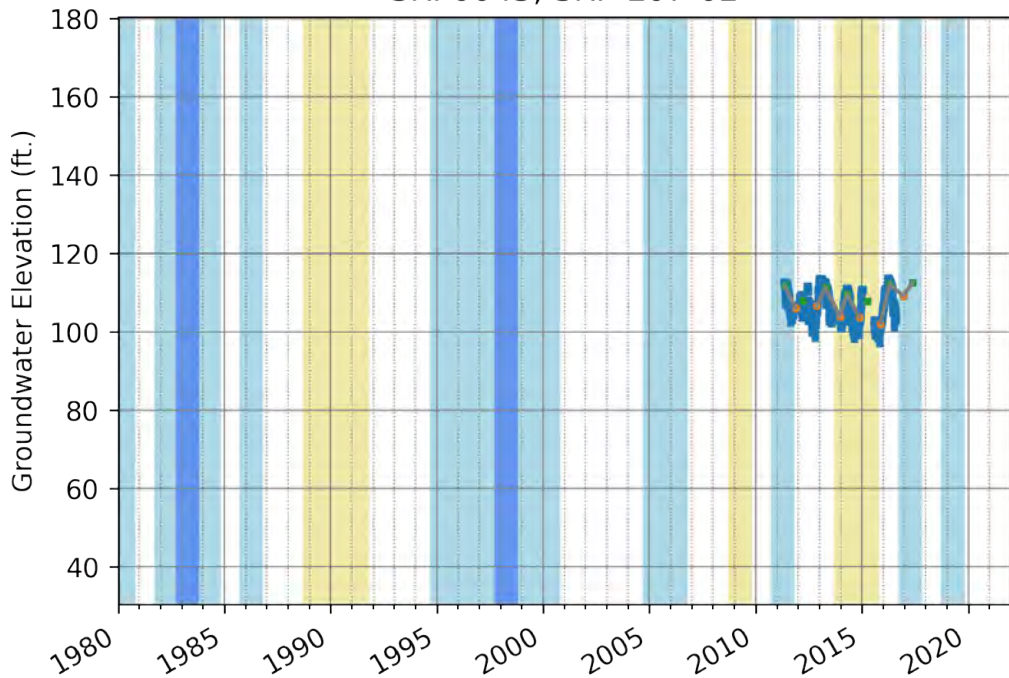




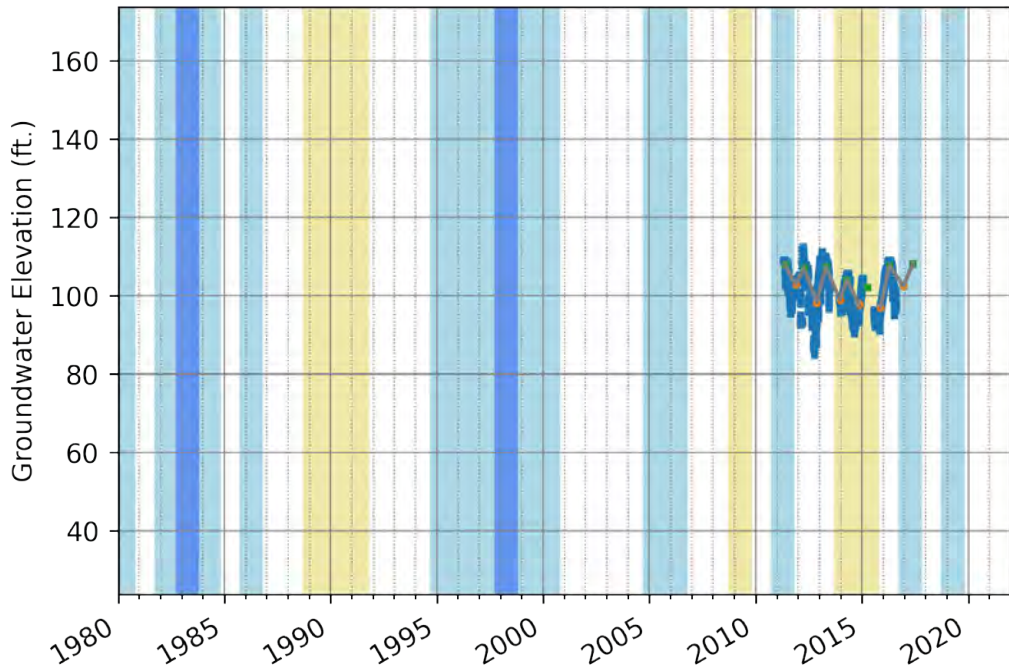
# SRP0042, SRP-E07-01



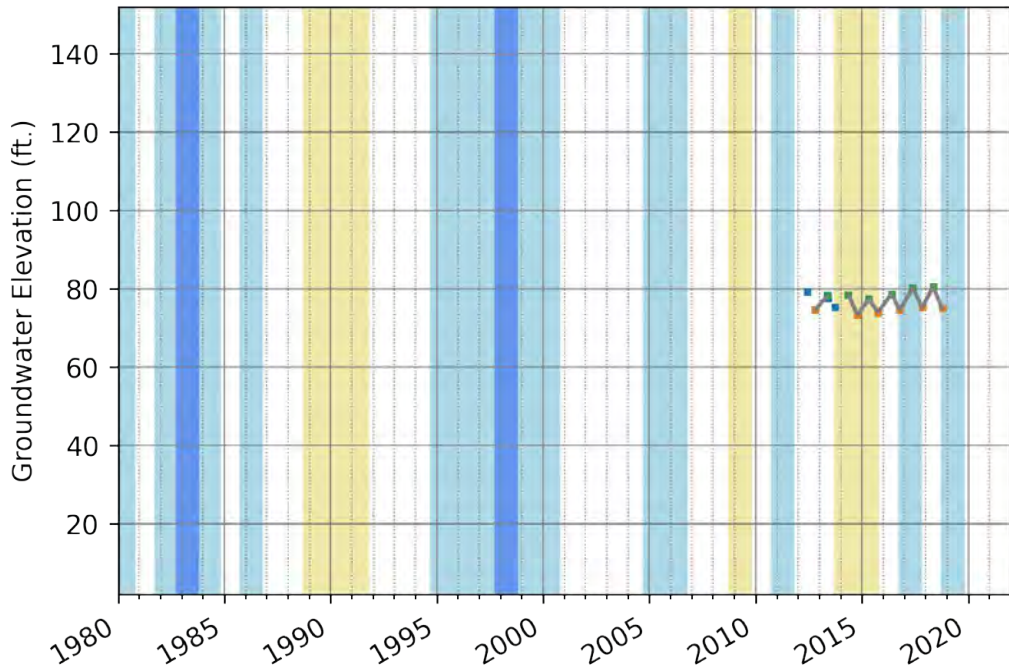
# SRP0043, SRP-E07-02



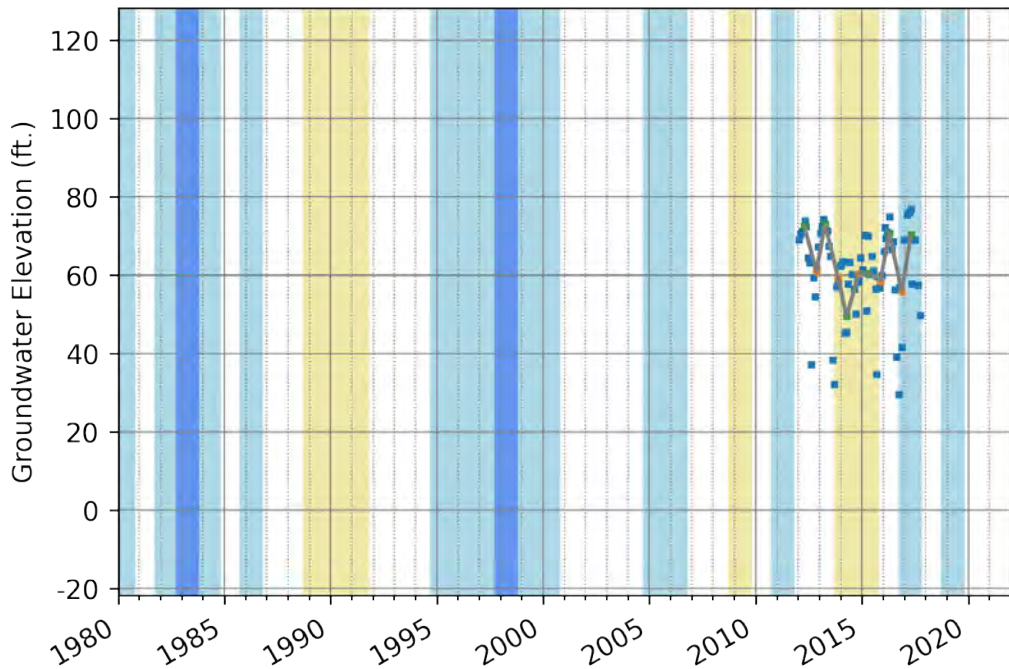
# SRP0044, SRP-E07-03



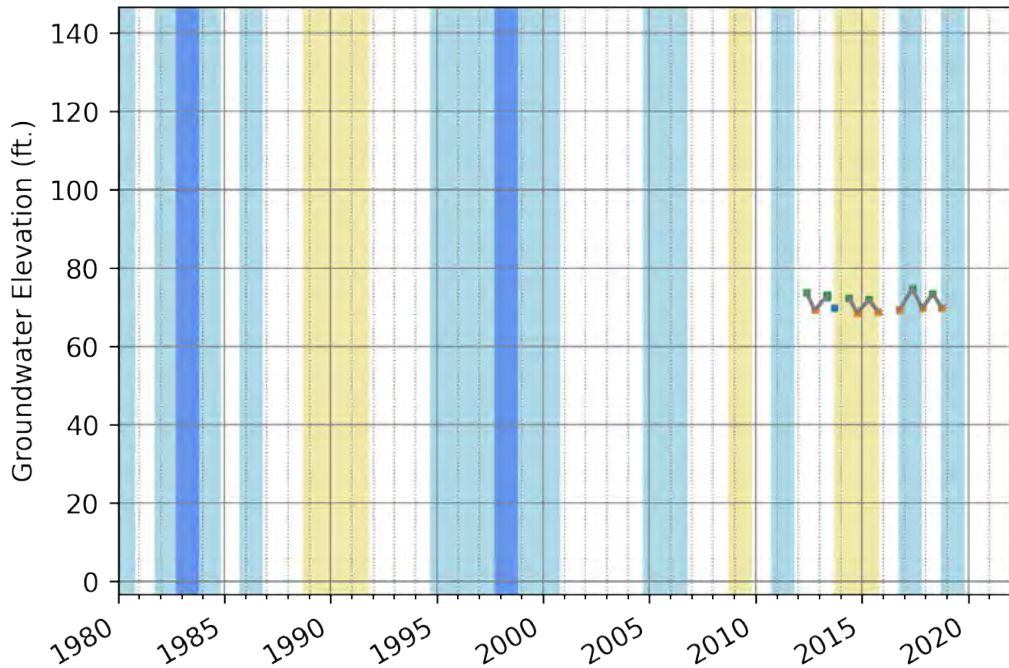
# SRP0045, SRP-E11-01



# SRP0046, SRP-E13-01

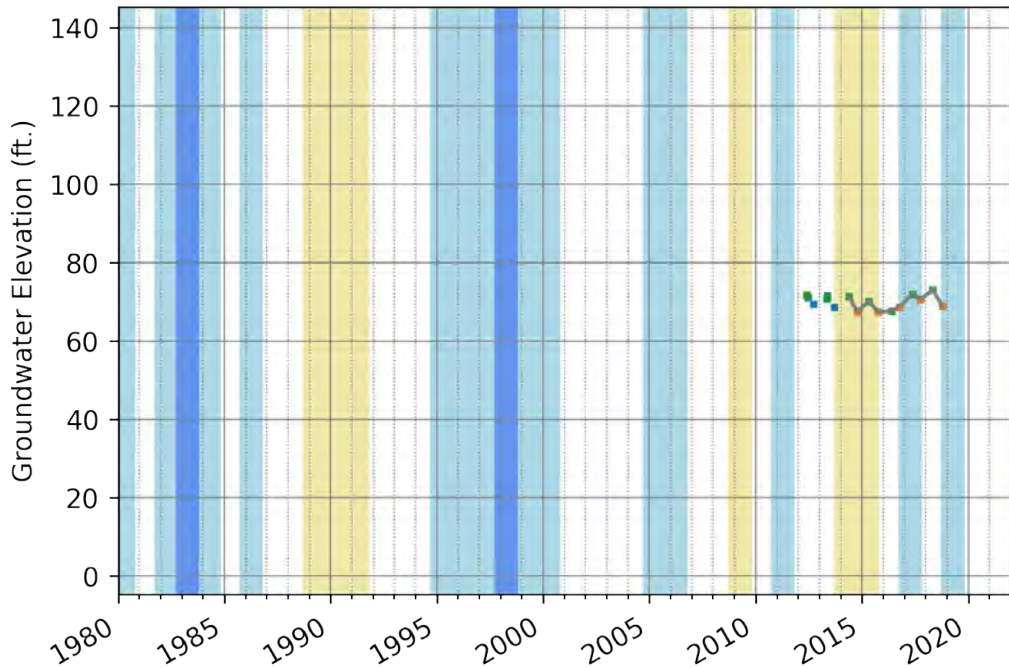


# SRP0047, SRP-E15-01

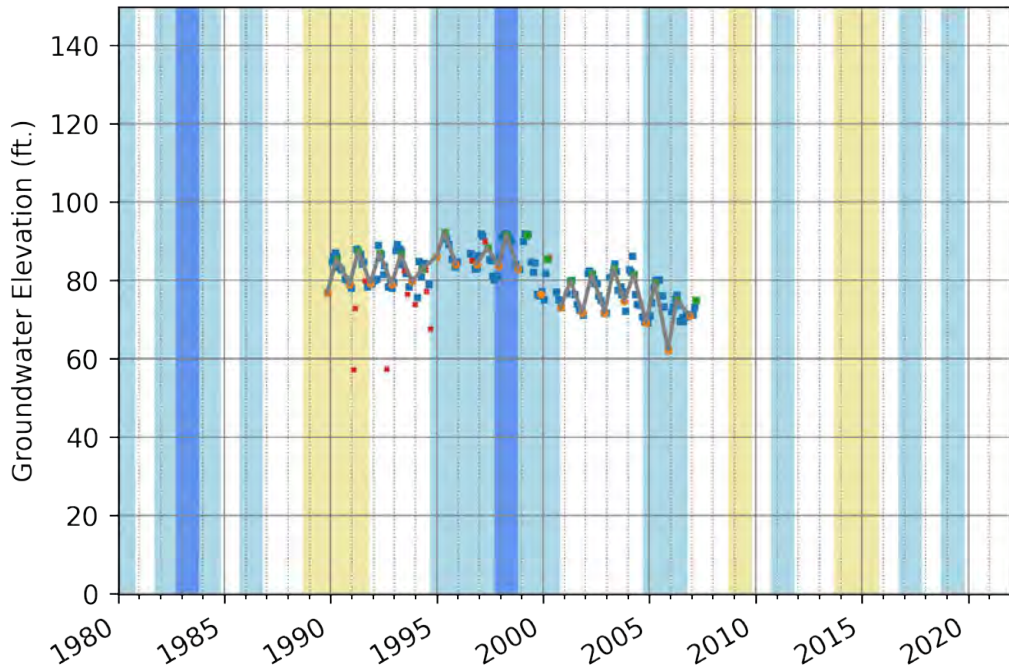




# SRP0048, SRP-E15-02

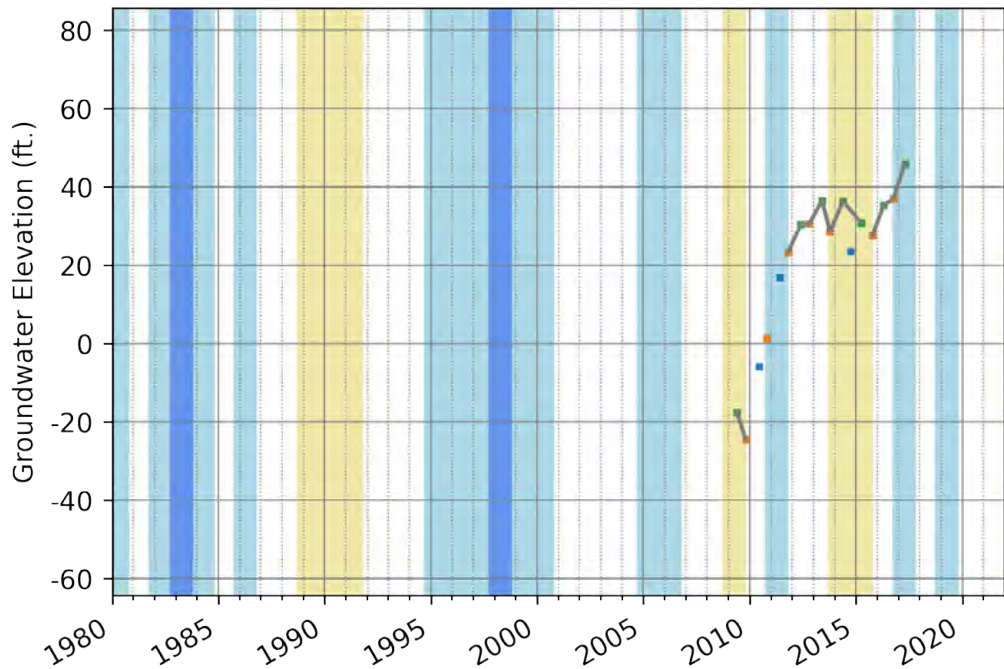


# SRP0049, SRP-E16-01

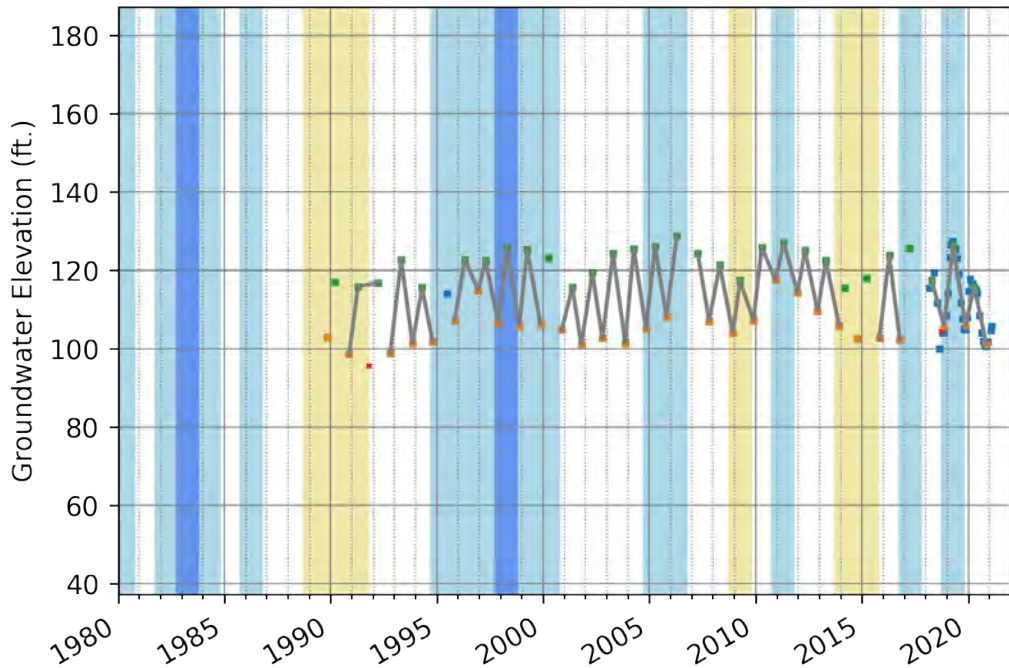




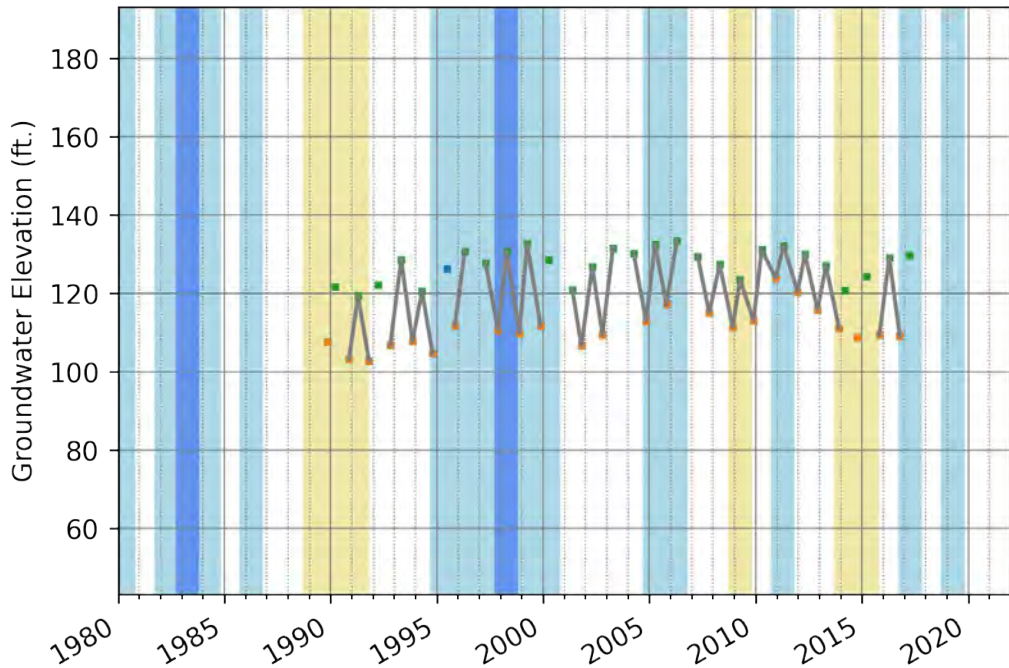
# SRP0050, SRP-E16-02



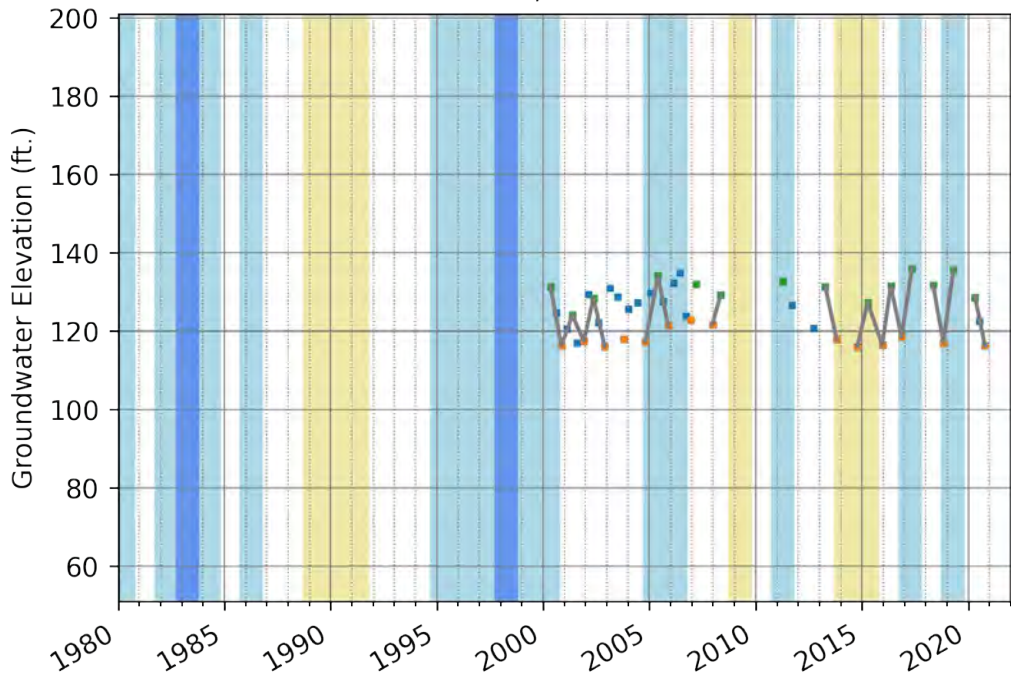
# SRP0052, SRP-F06-01



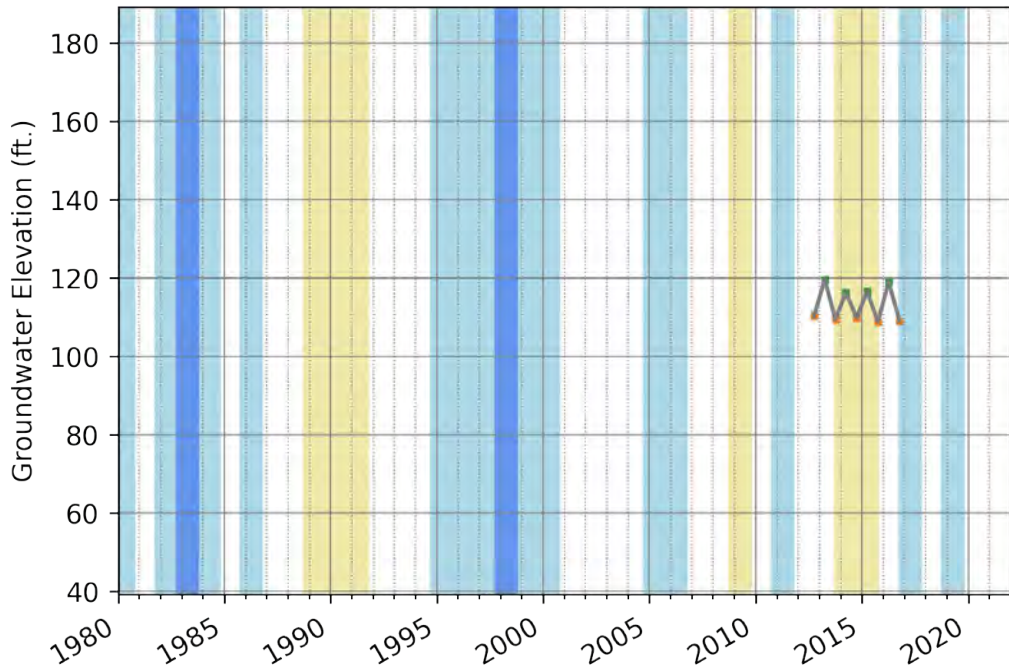
# SRP0053, SRP-F07-01



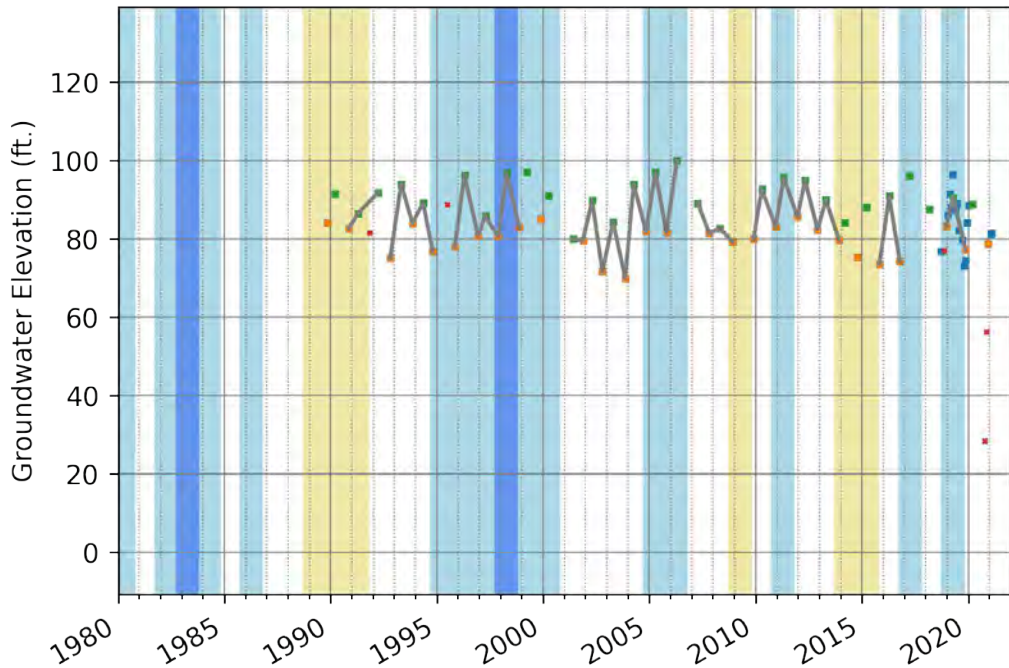
# SRP0055, SRP-F07-03



# SRP0057, SRP-F09-02

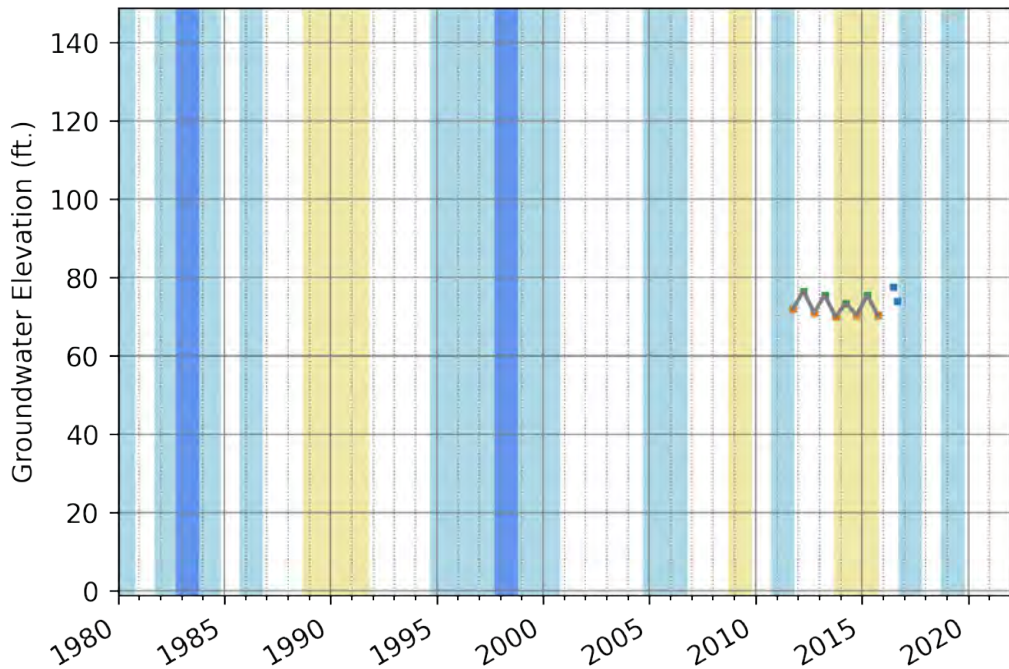


# SRP0058, SRP-F10-01

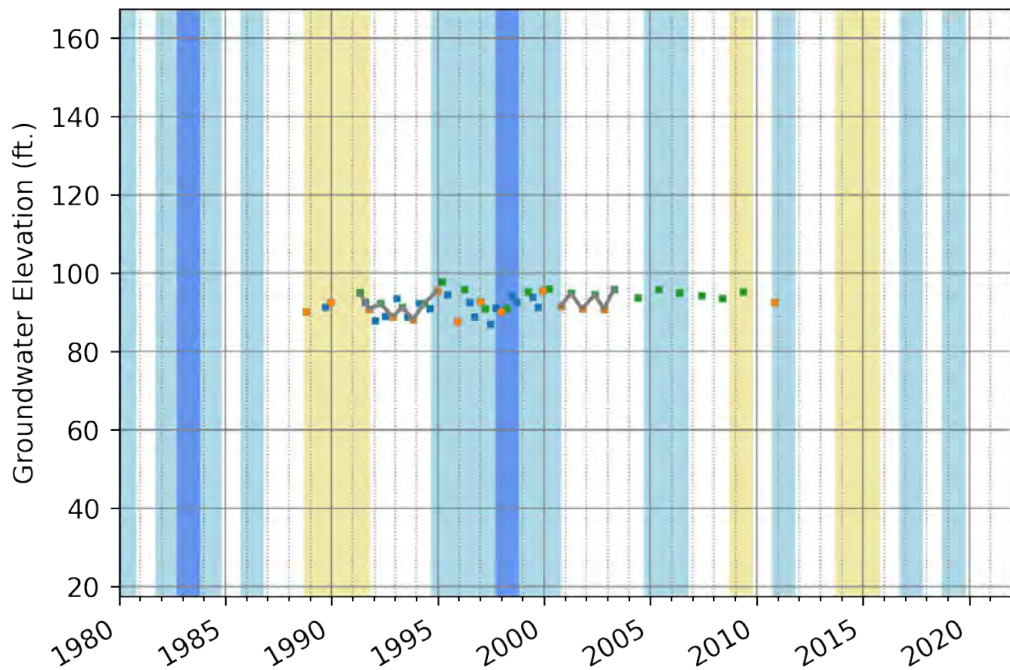




# SRP0059, SRP-F12-01

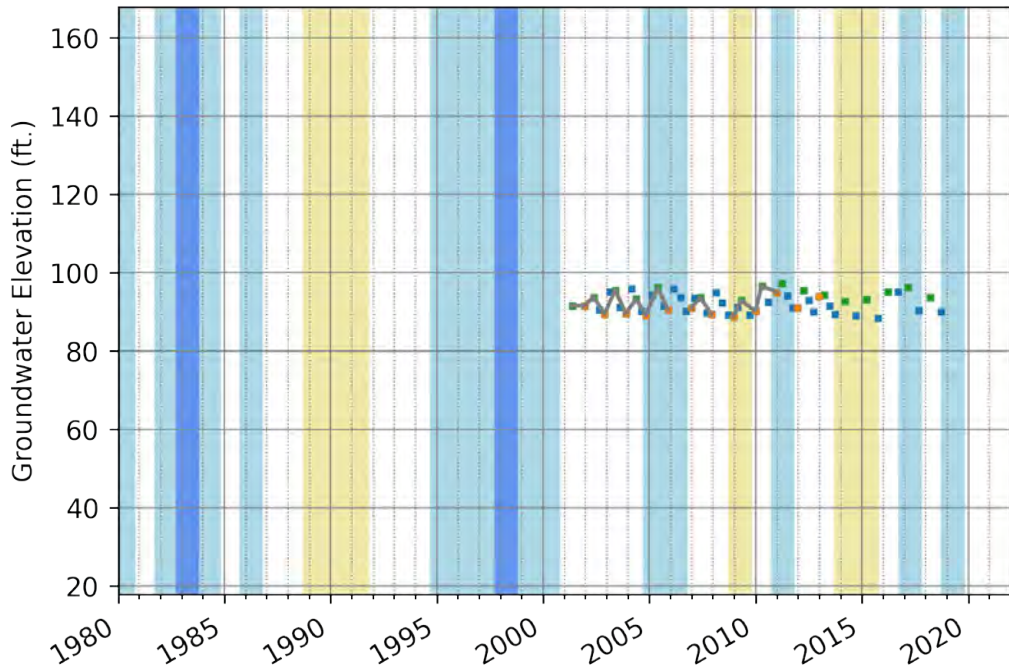


# SRP0060, SRP-F12-02

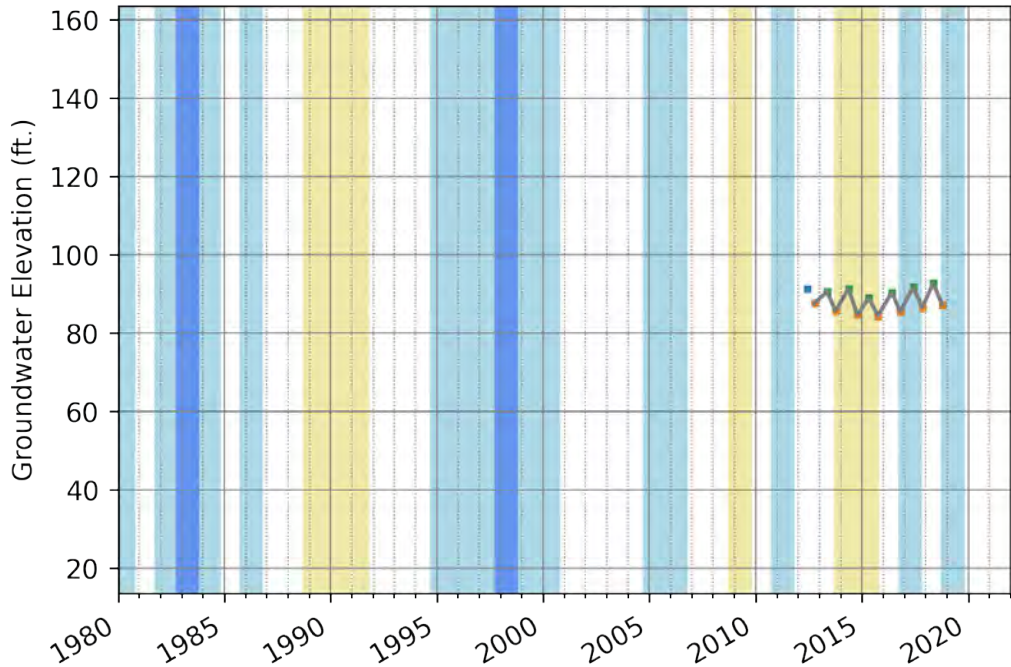




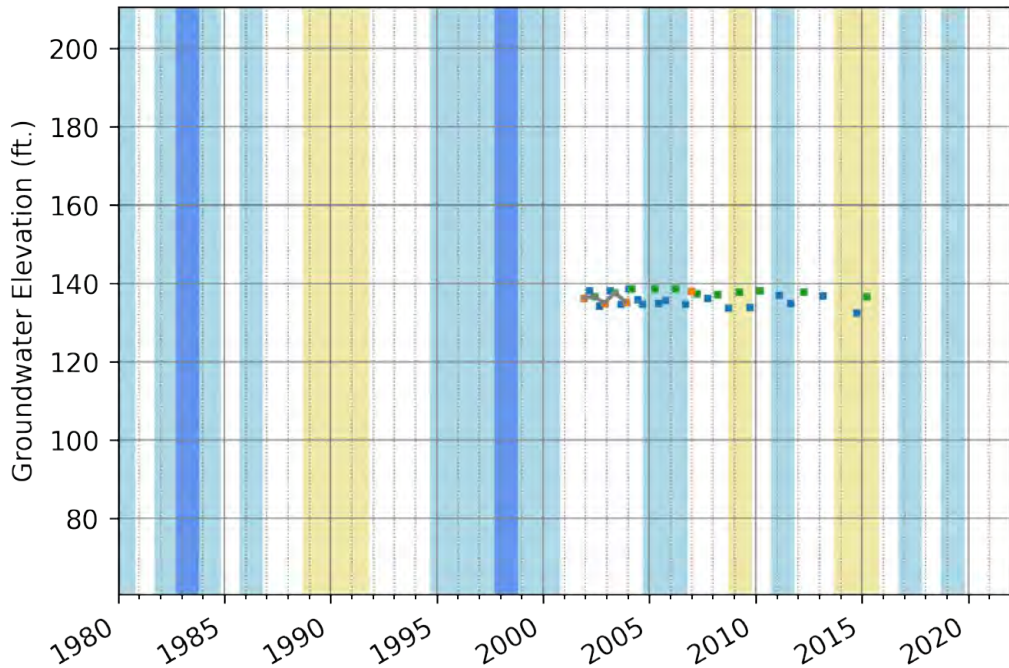
# SRP0061, SRP-F13-01



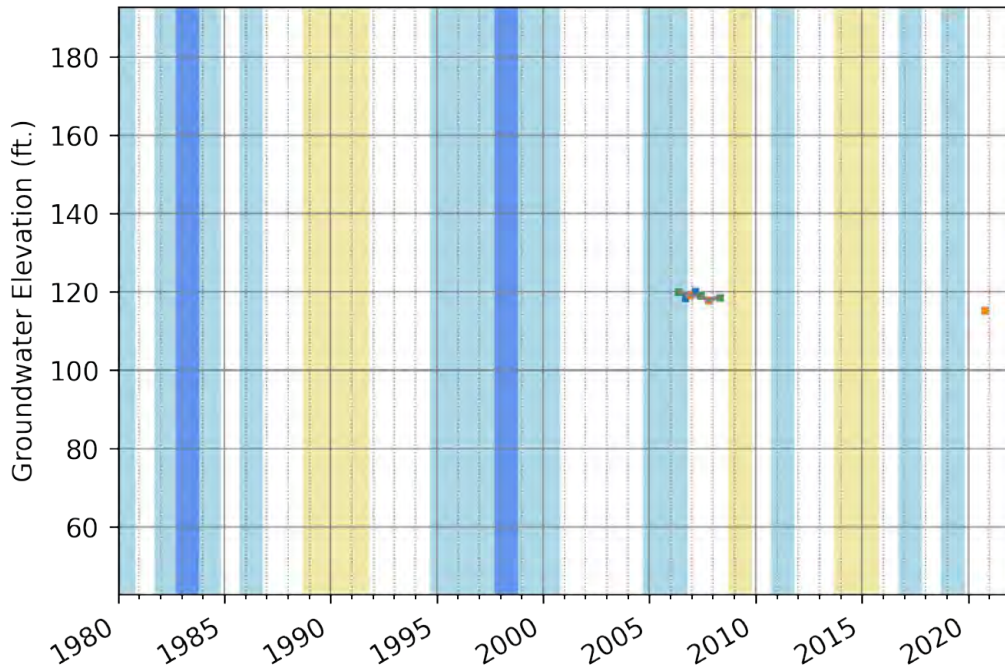
# SRP0062, SRP-F14-01



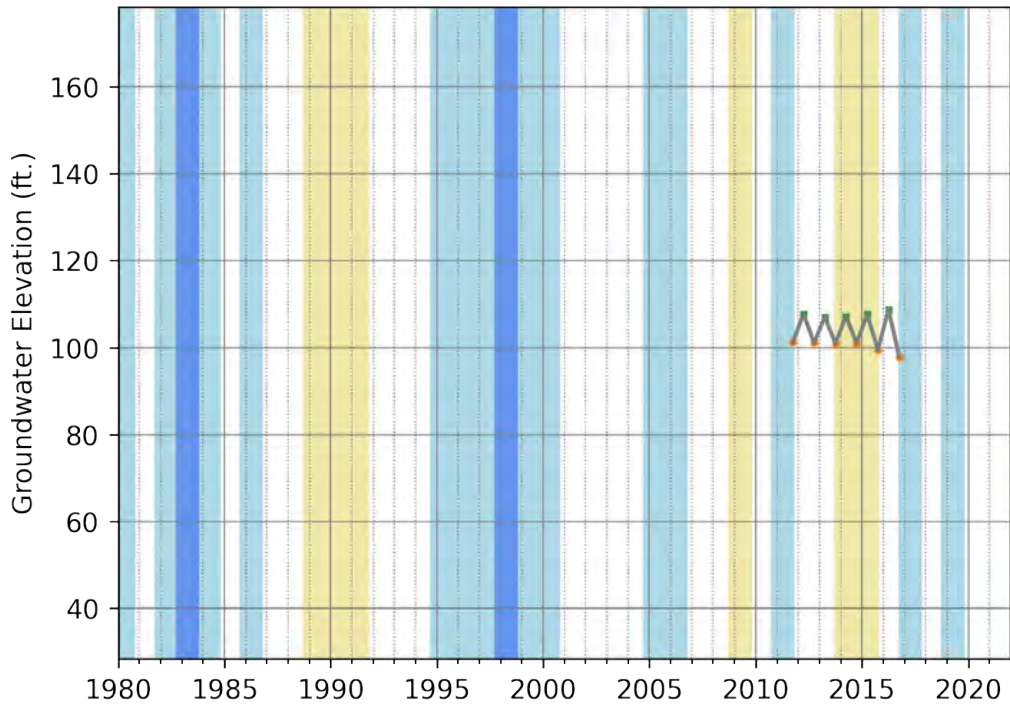
# SRP0065, SRP-F18-01



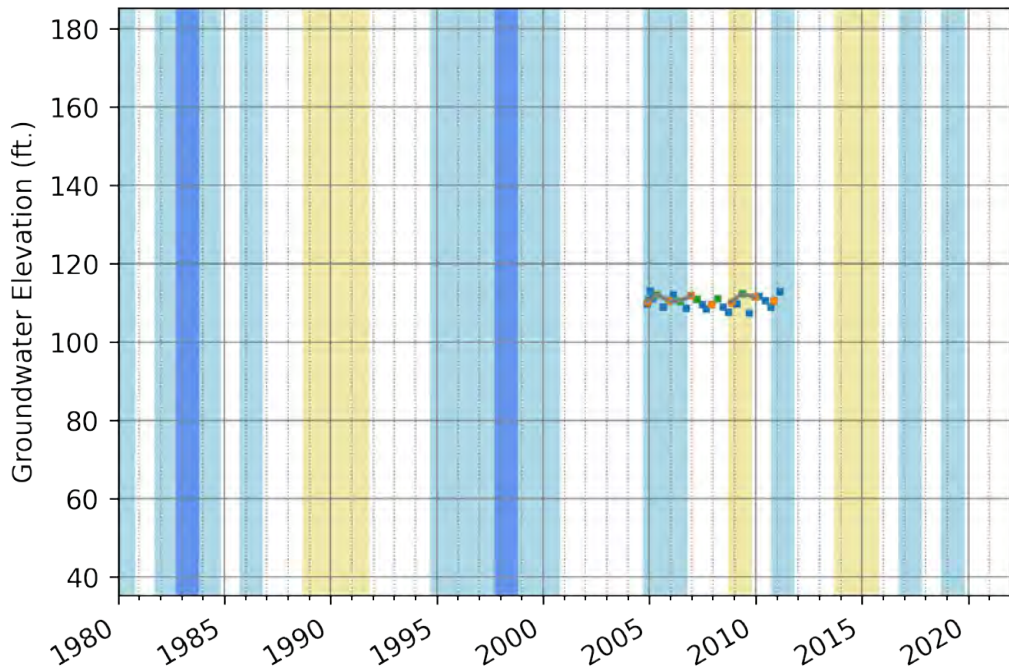
# SRP0067, SRP-G10-01



# SRP0068, SRP-G11-01

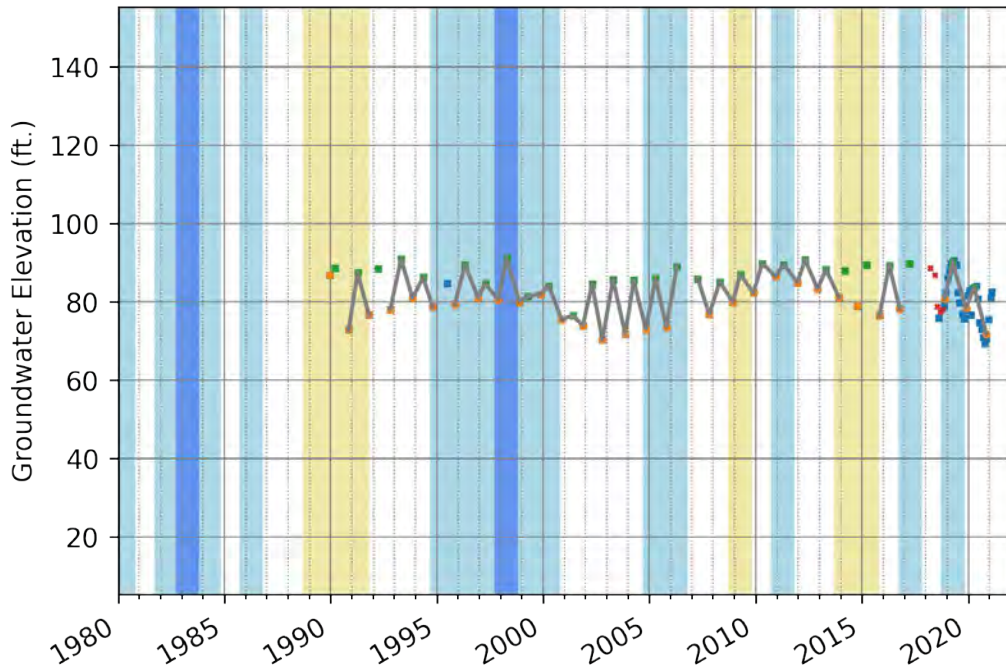


# SRP0069, SRP-G11-02

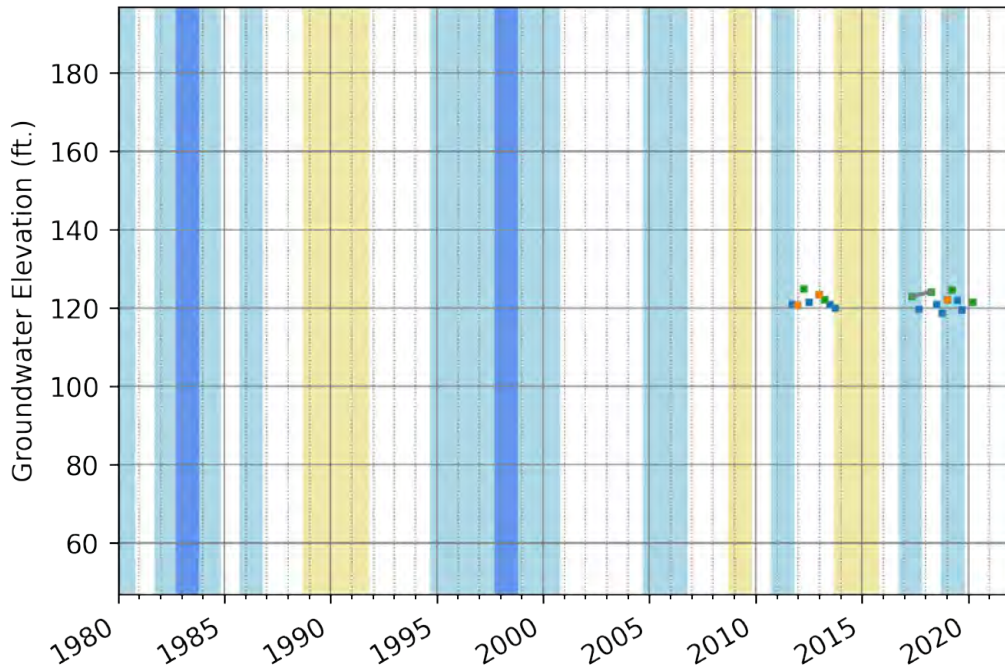




# SRP0070, SRP-G12-01

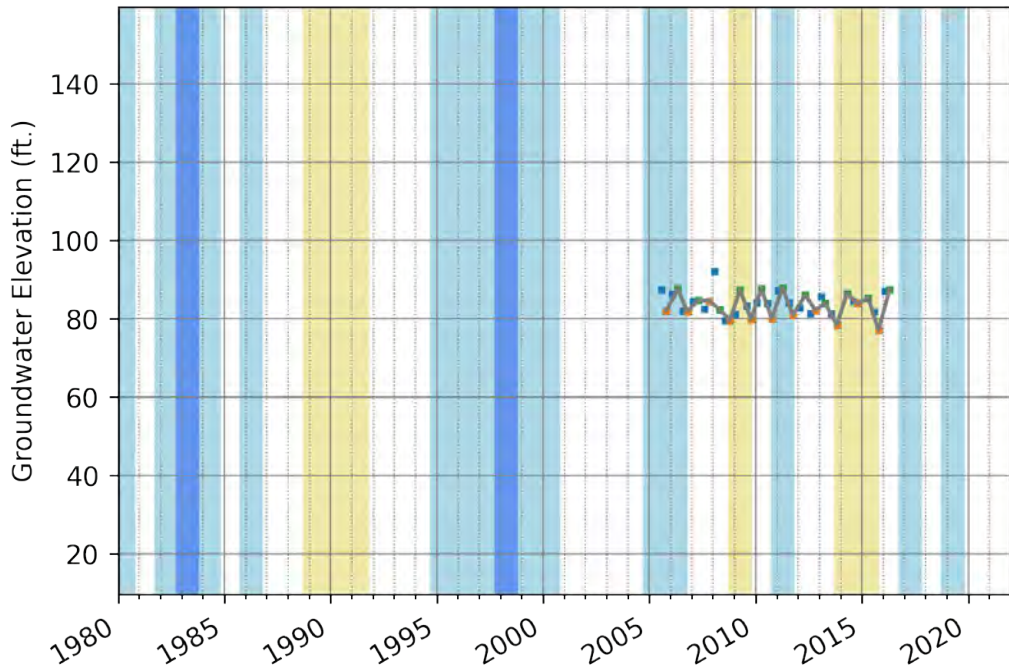


# SRP0071, SRP-G12-02

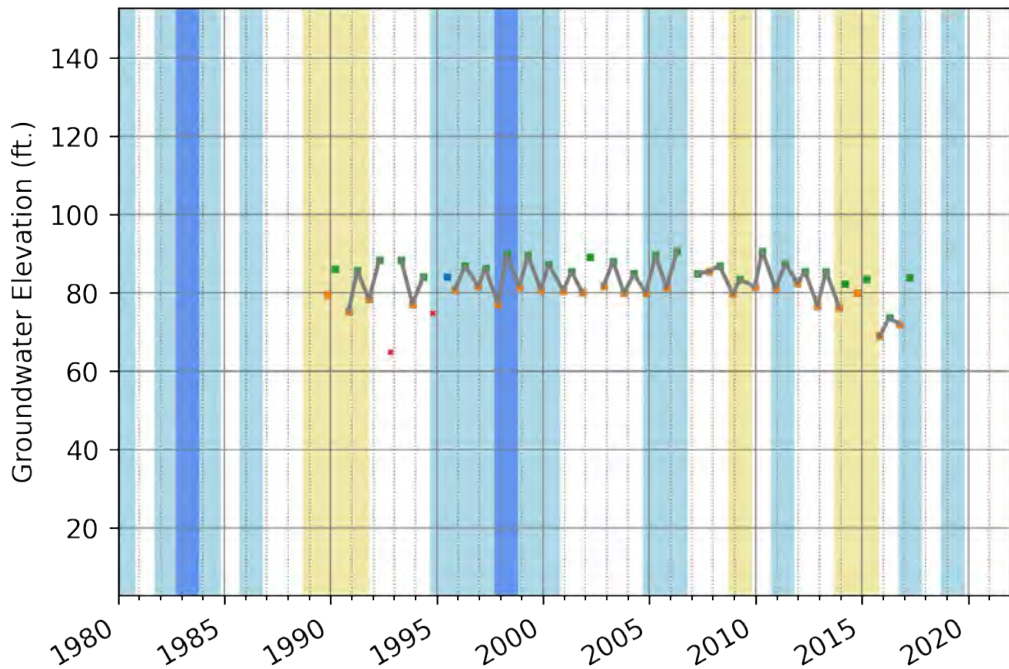




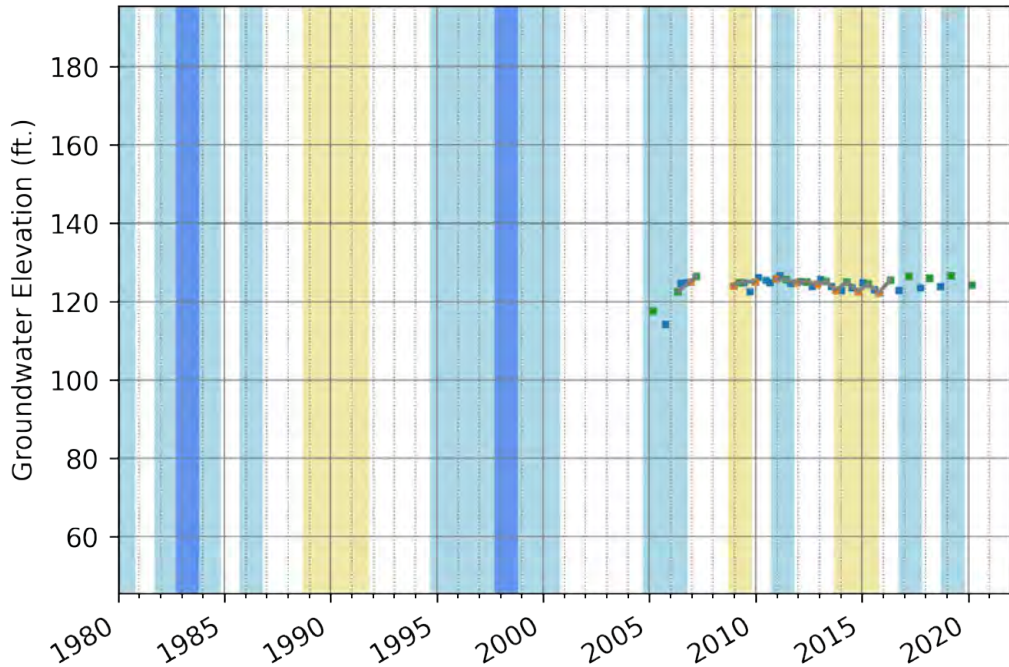
# SRP0072, SRP-G13-01



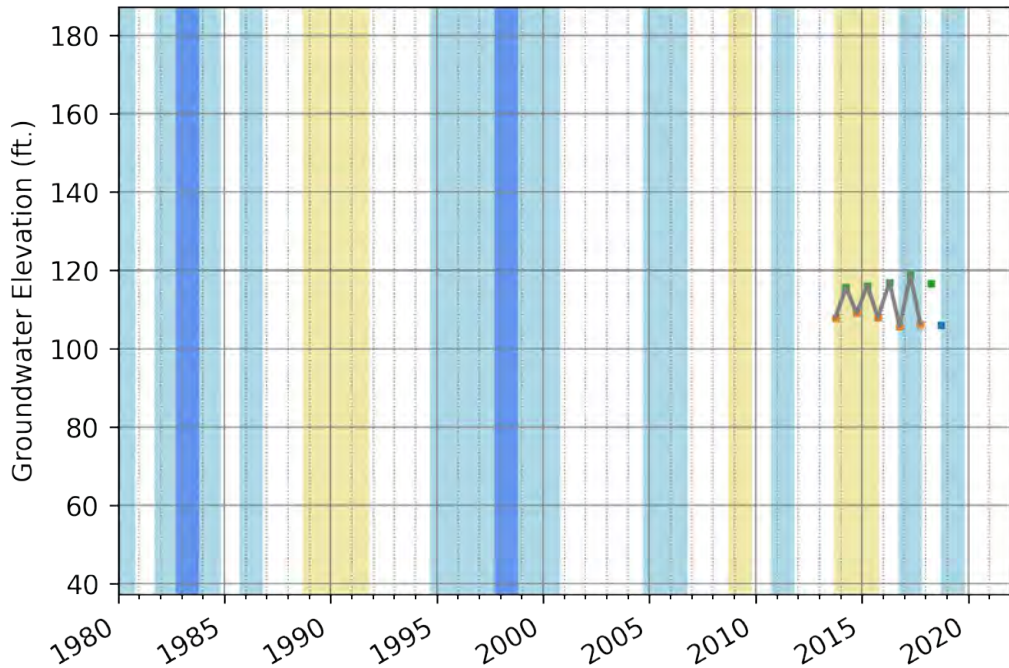
# SRP0073, SRP-G15-01



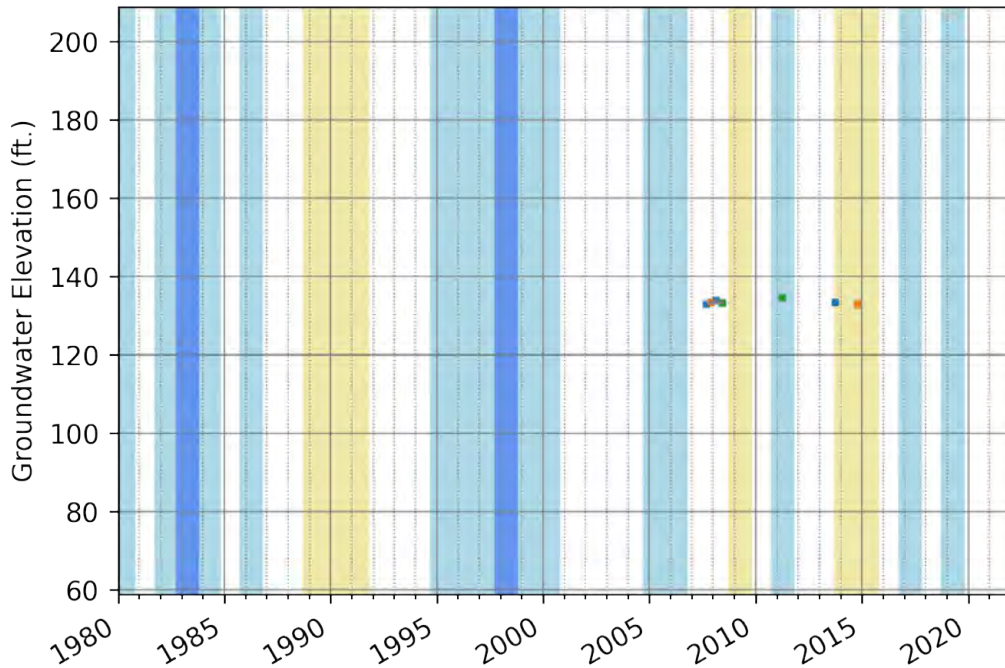
# SRP0074, SRP-H10-01



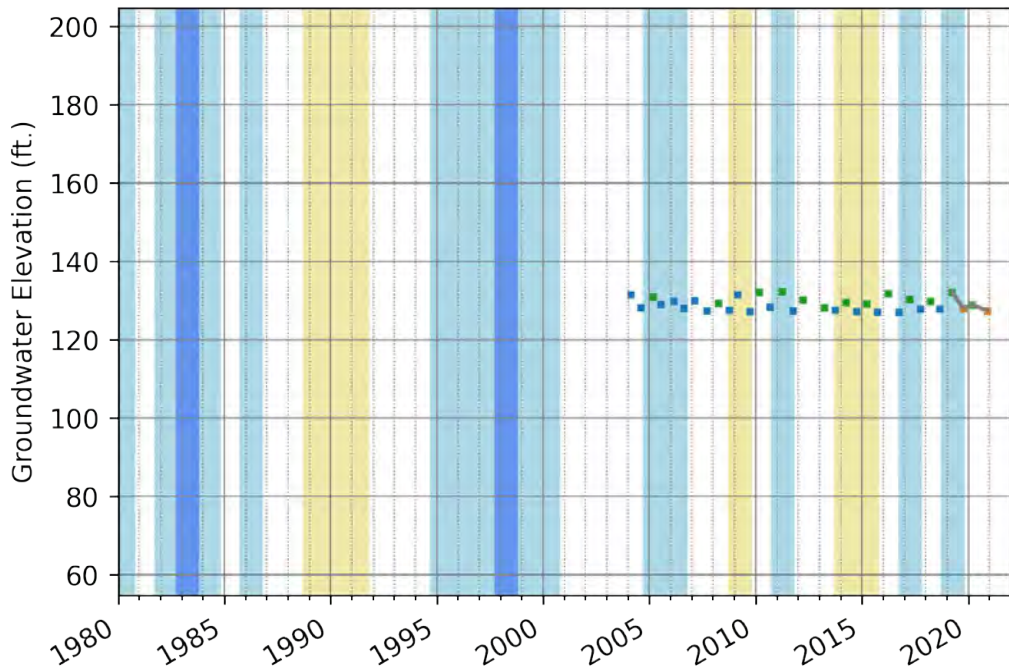
# SRP0075, SRP-H10-02



# SRP0076, SRP-H10-03

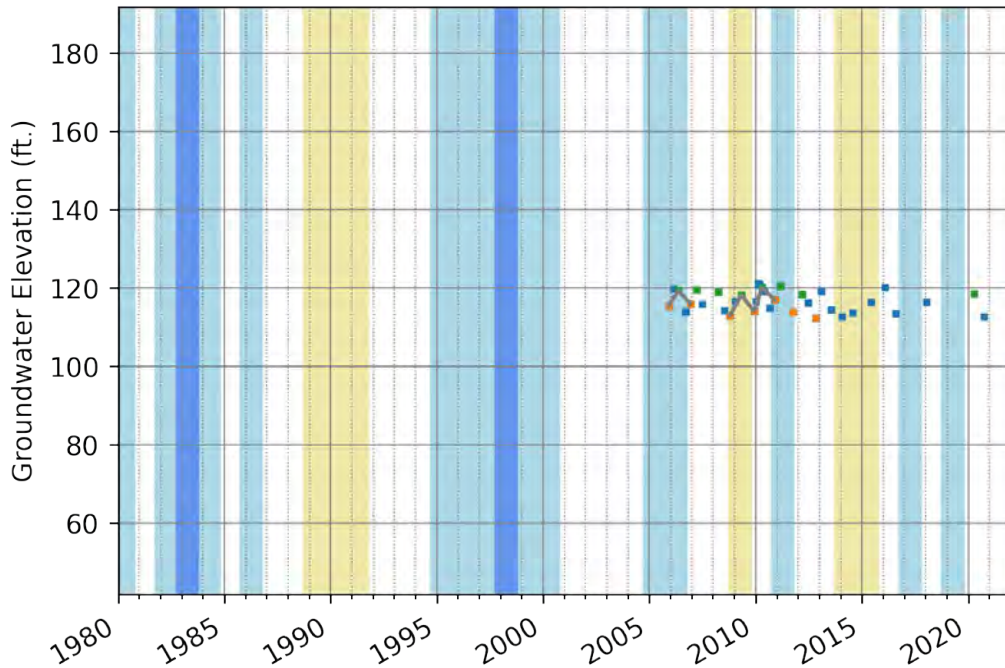


# SRP0077, SRP-H11-01

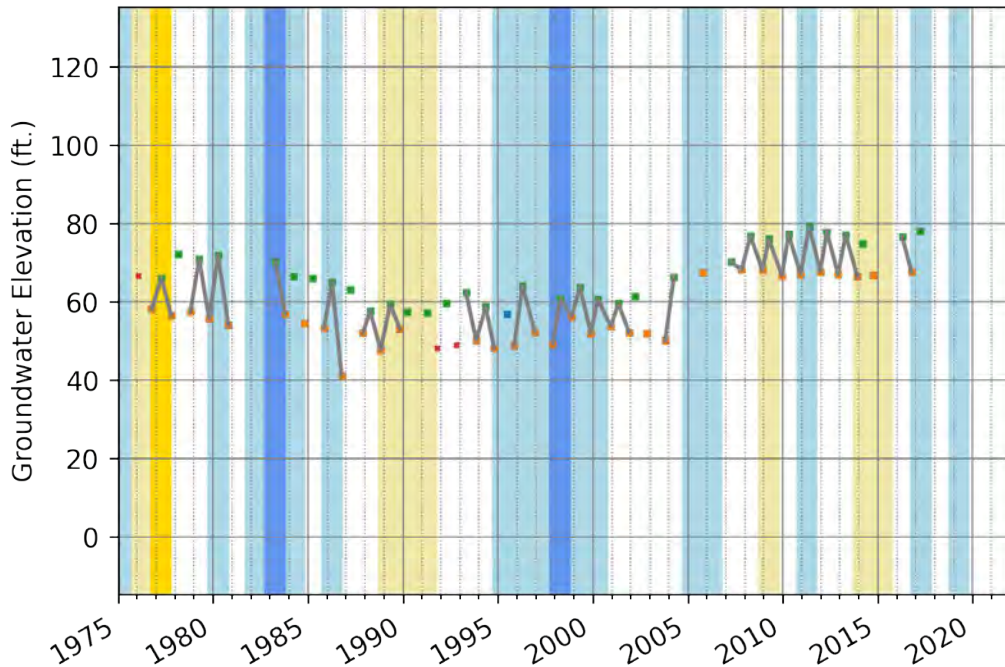




# SRP0078, SRP-H11-02

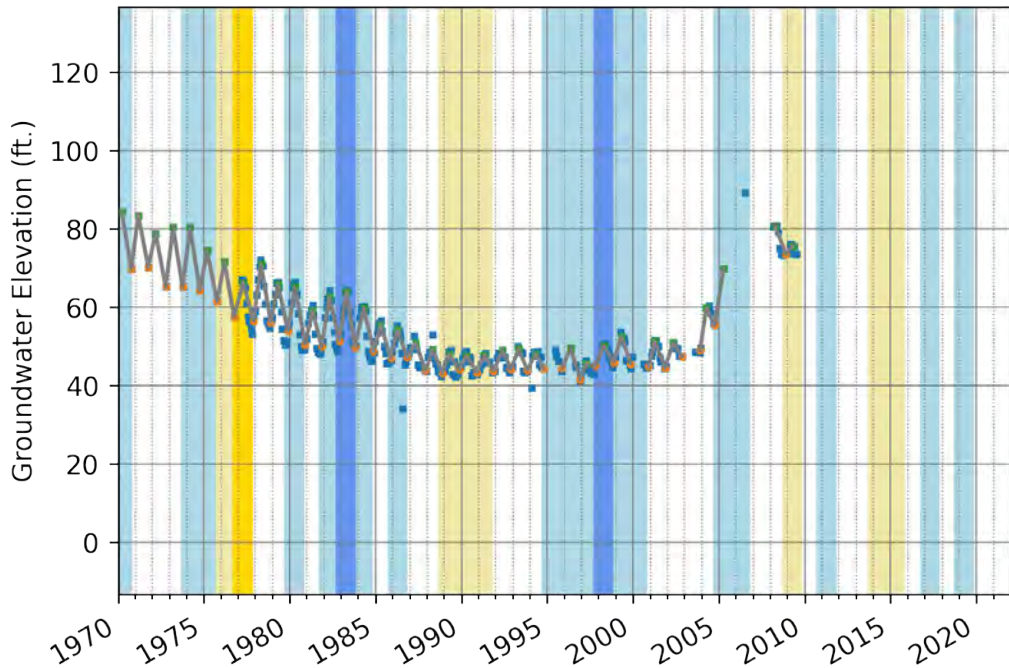


# SRP0079, SRP-H16-01

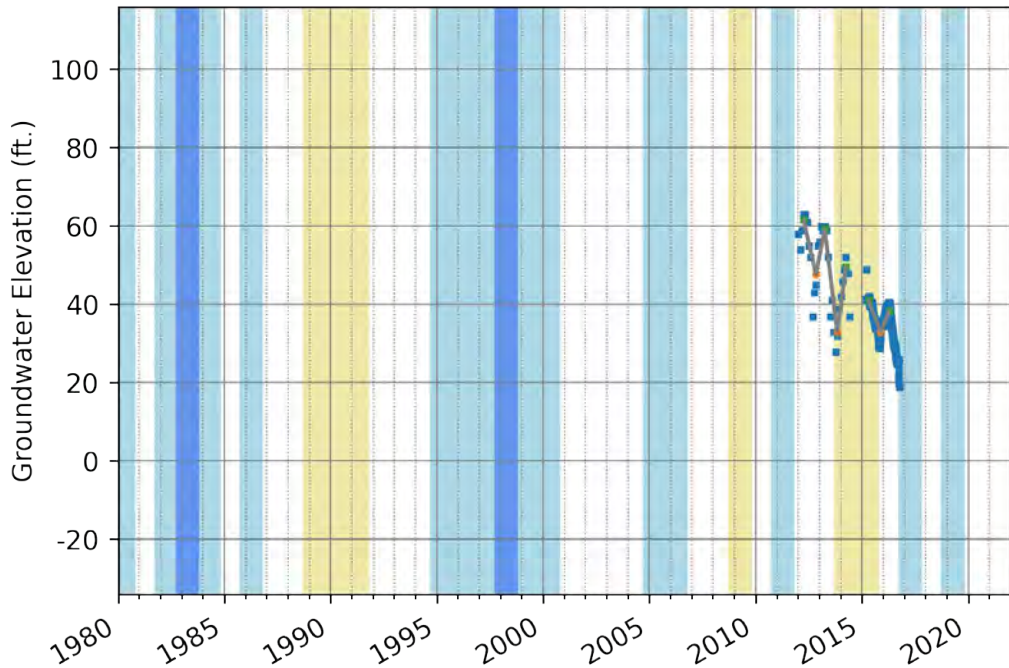




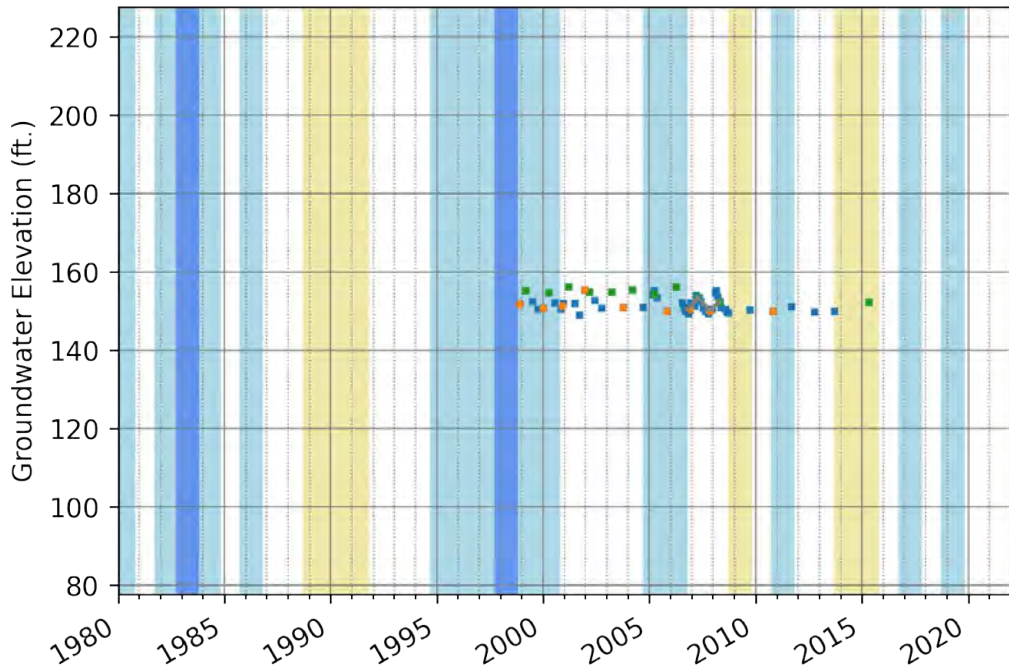
# SRP0080, SRP-H17-01



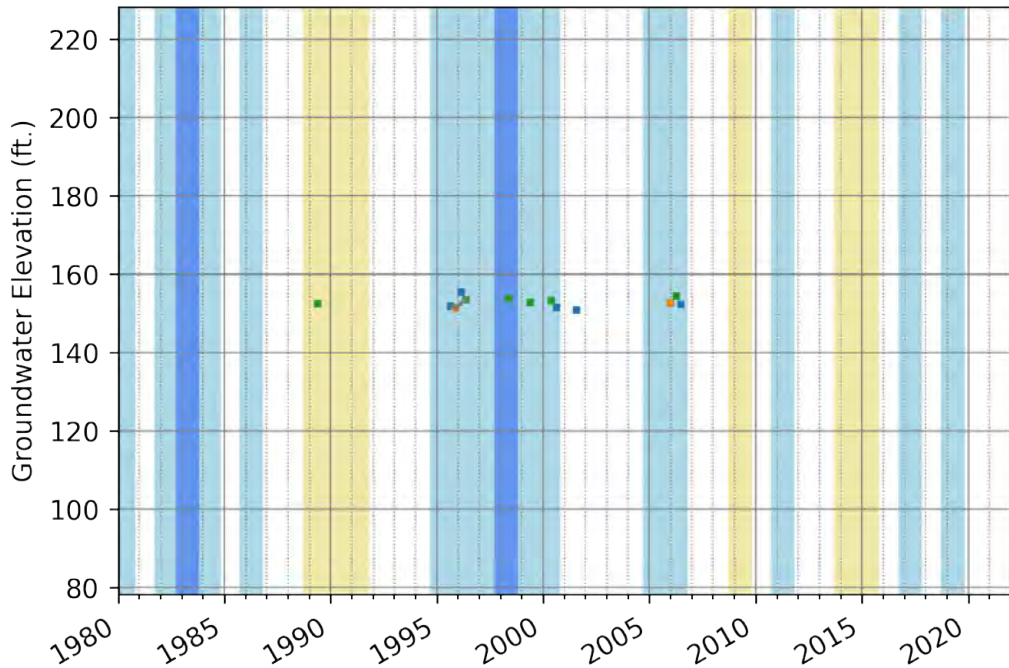
# SRP0081, SRP-H18-01



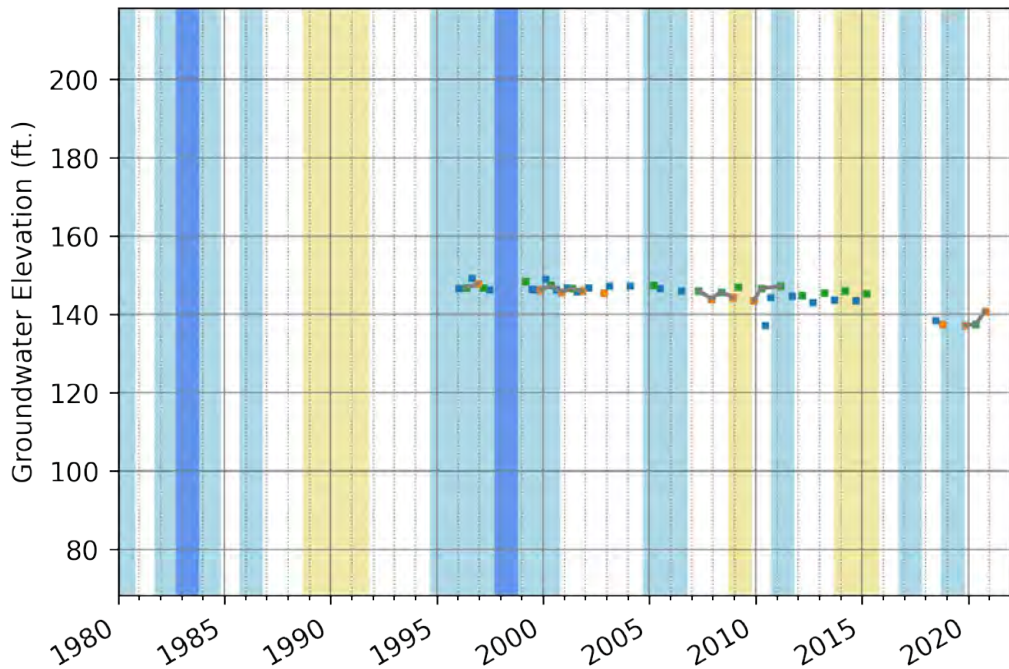
# SRP0082, SRP-I11-01



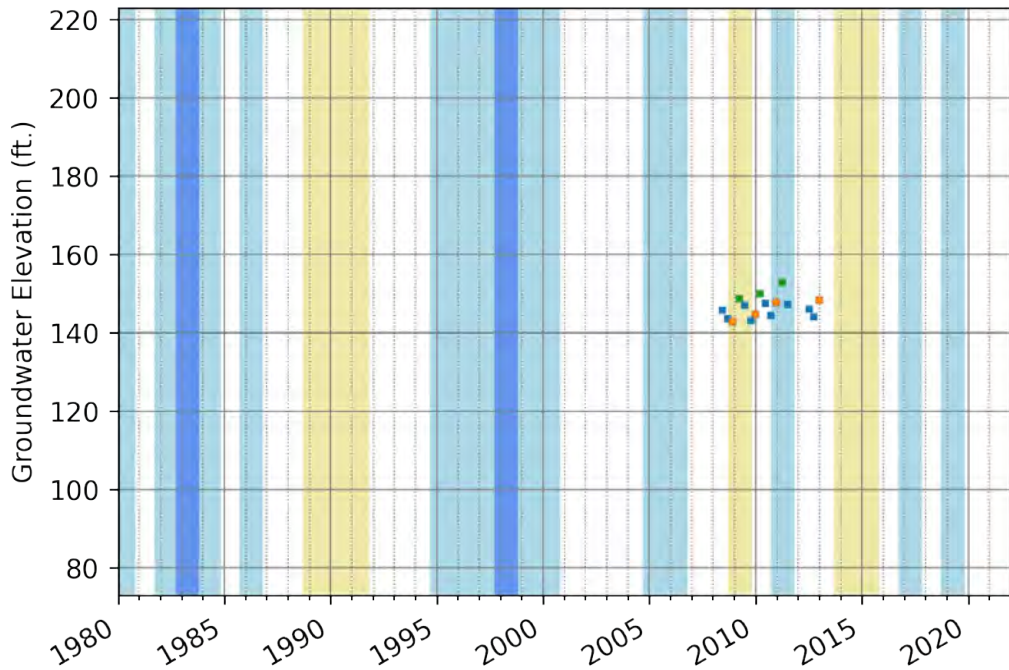
# SRP0083, SRP-I12-01



# SRP0084, SRP-I12-02

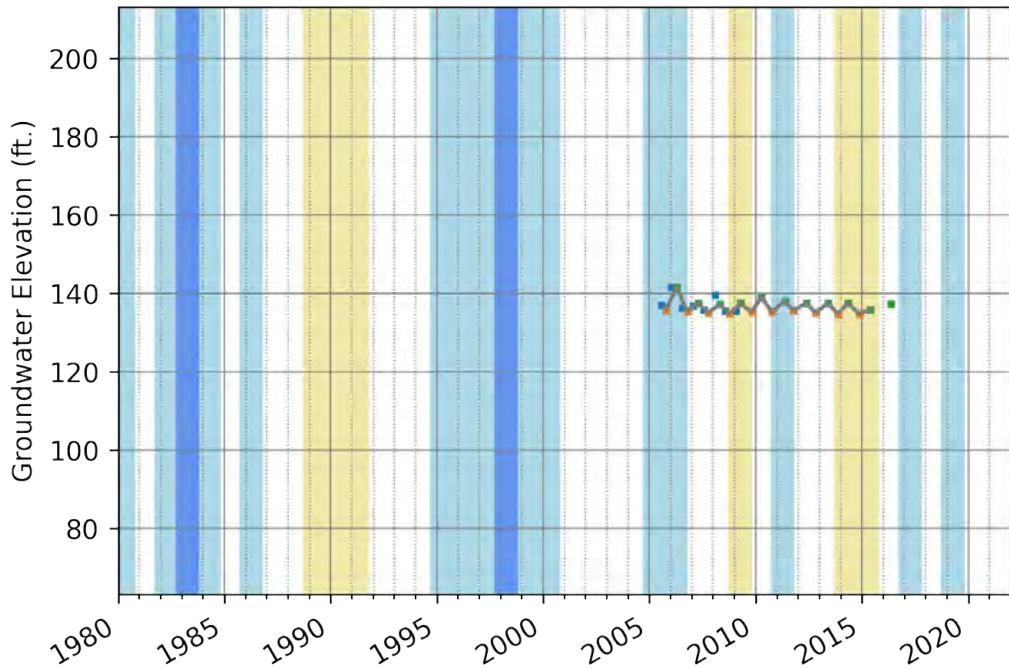


# SRP0085, SRP-I12-03

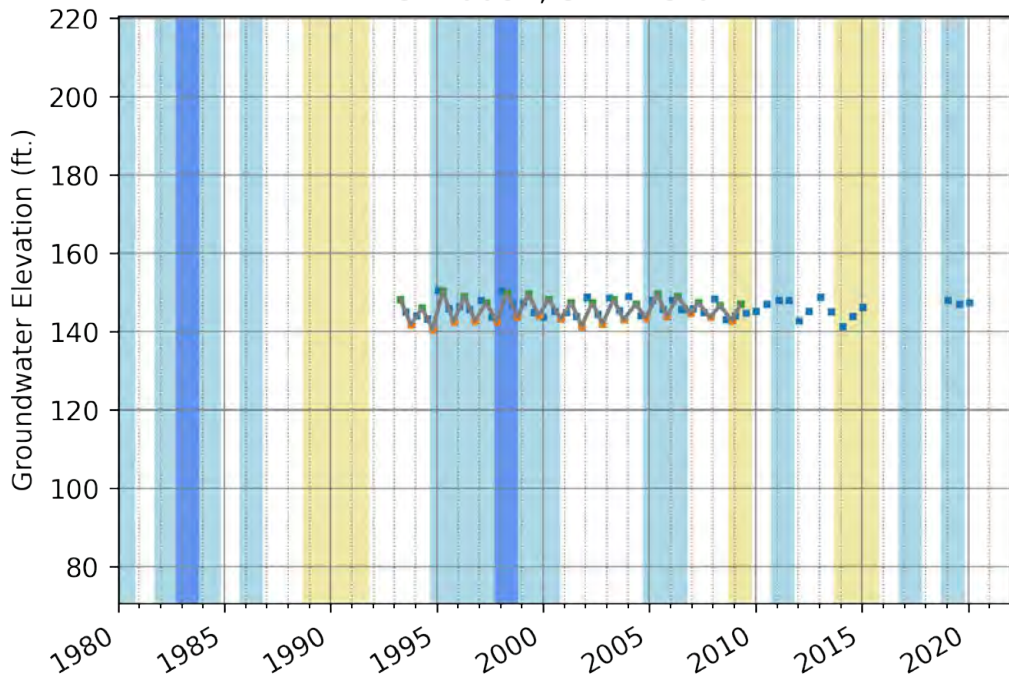




# SRP0086, SRP-I12-04

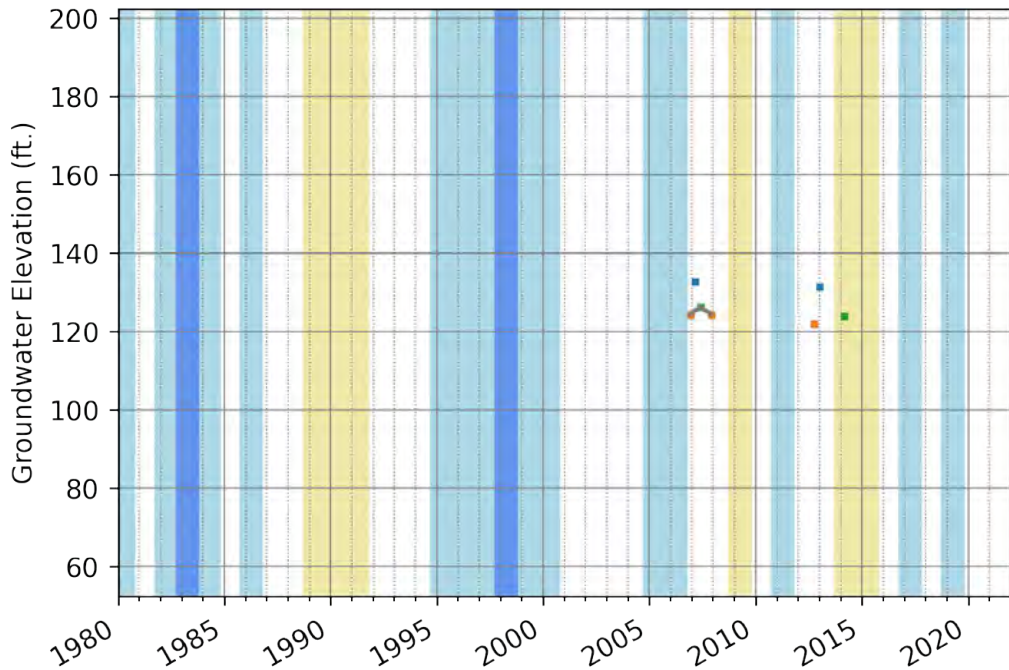


# SRP0087, SRP-I13-01

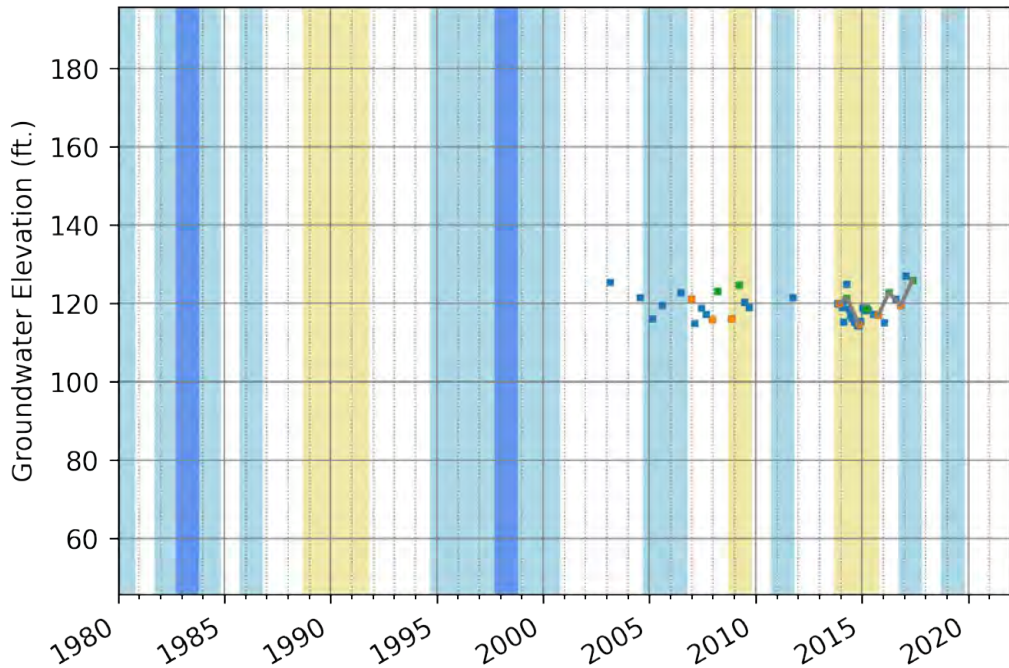




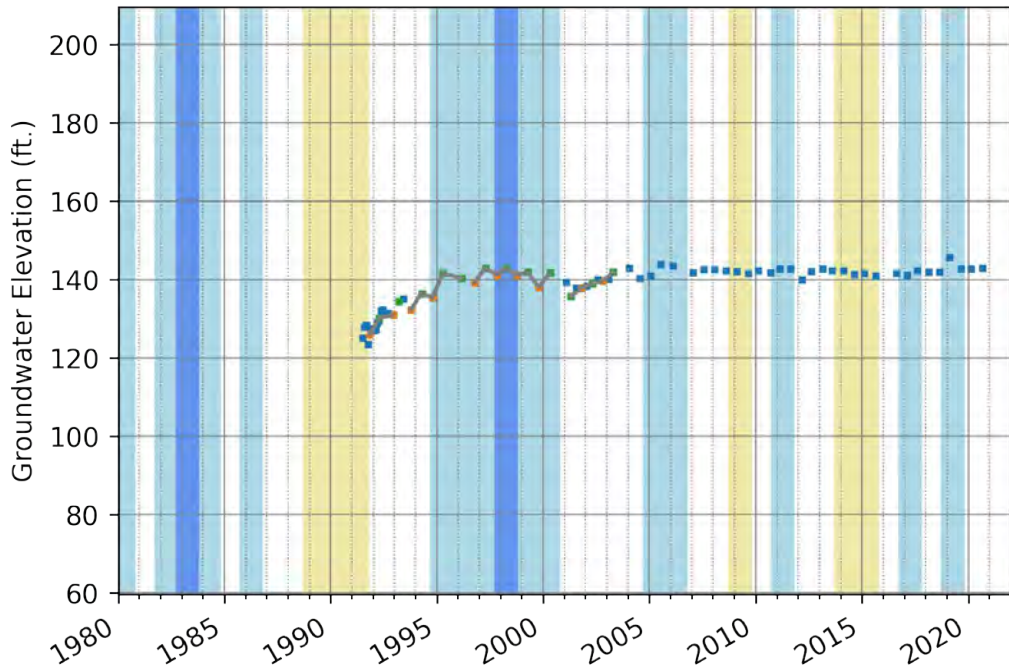
# SRP0088, SRP-I13-02



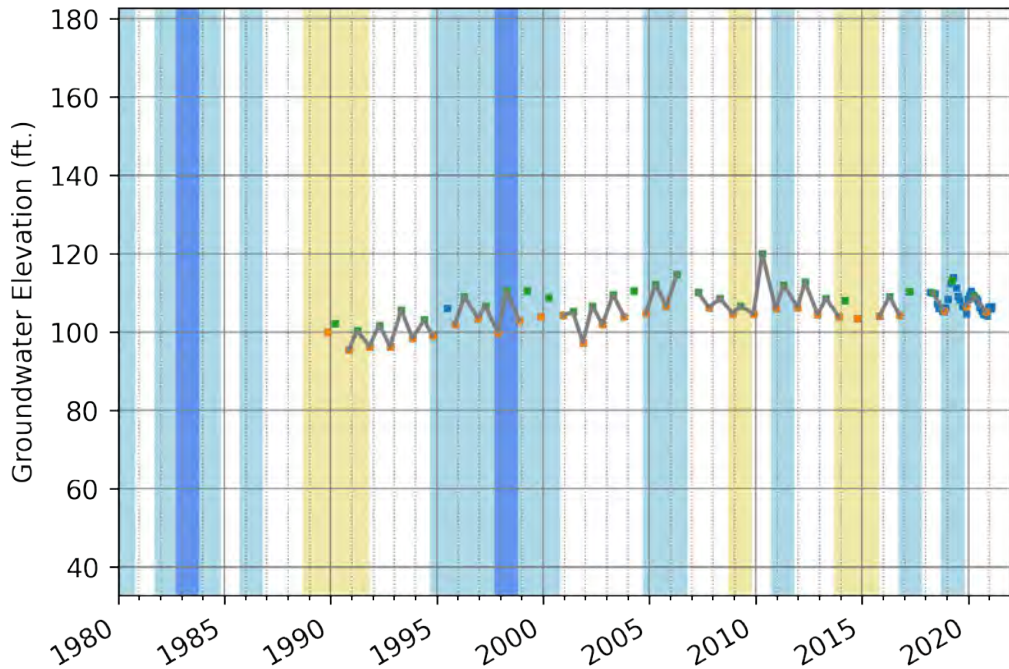
# SRP0089, SRP-I14-01



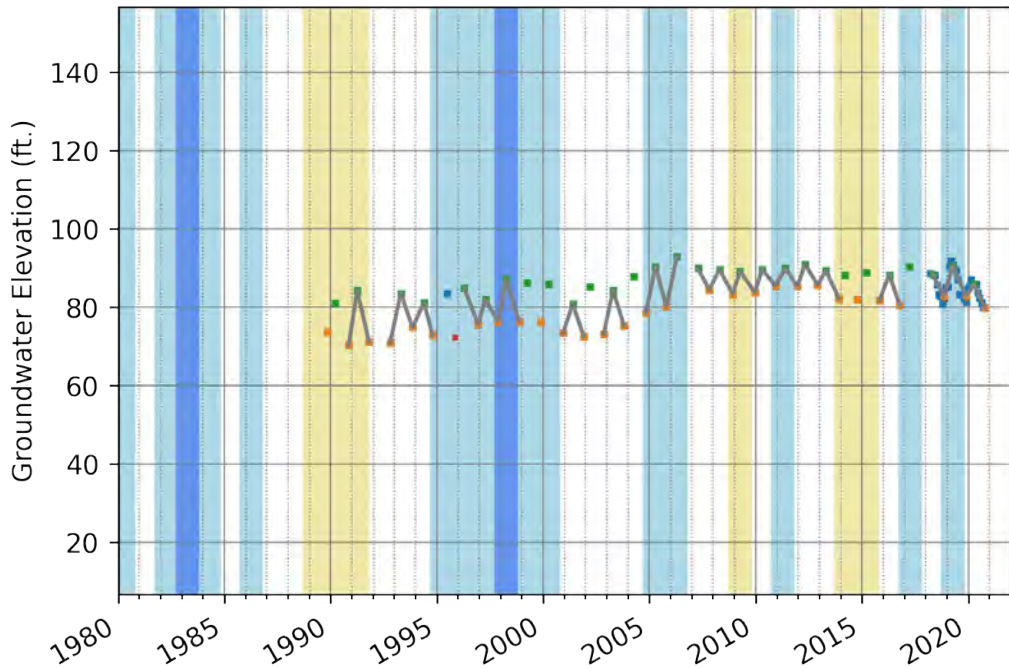
# SRP0090, SRP-I14-02



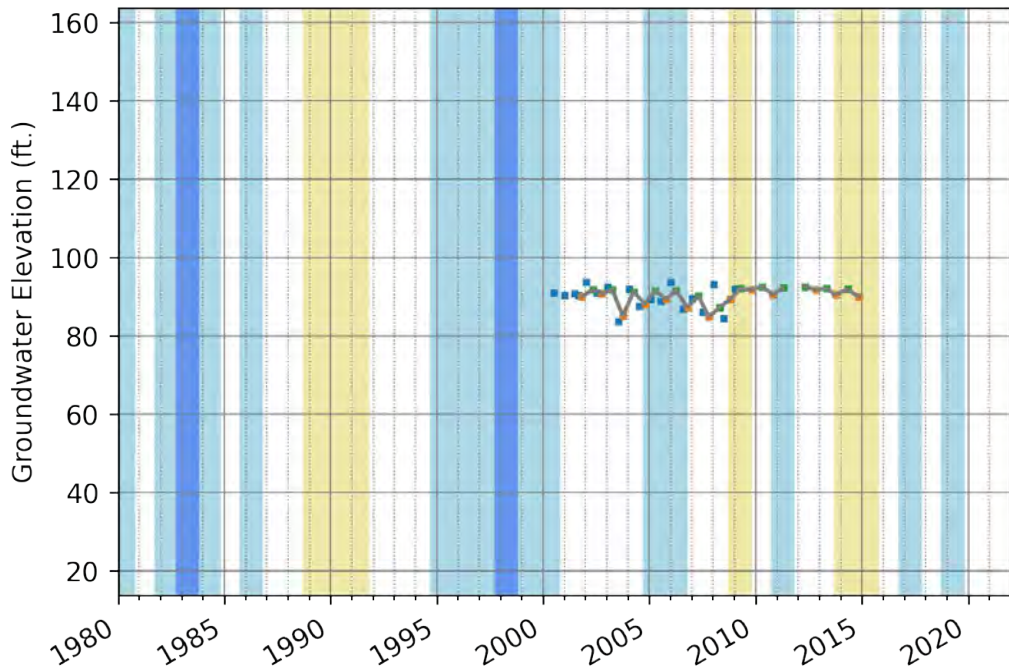
# SRP0091, SRP-I14-03



# SRP0092, SRP-I16-01

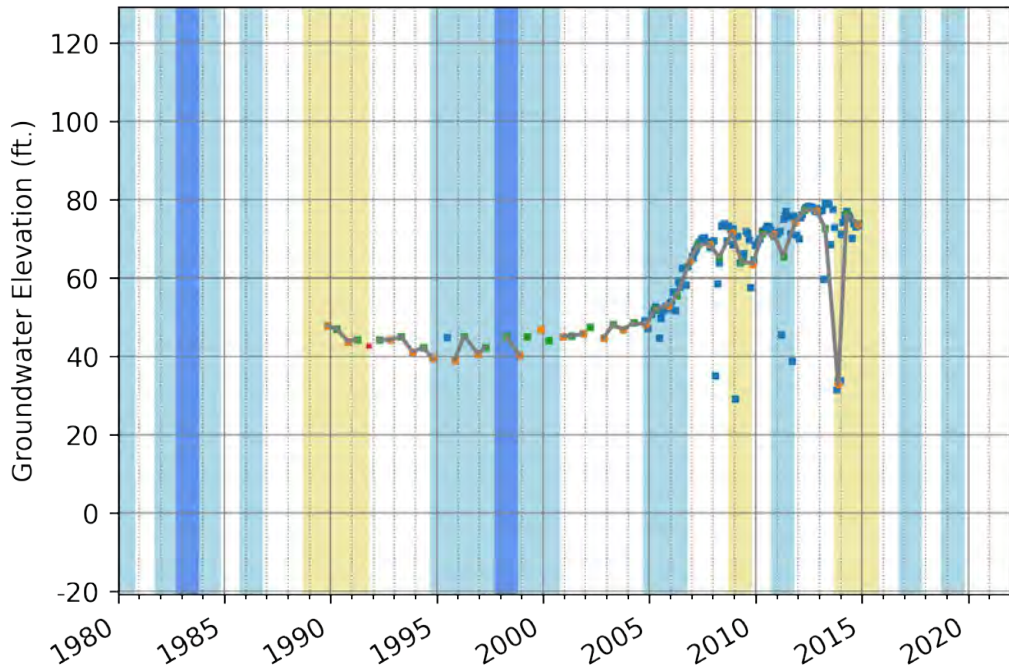


# SRP0094, SRP-I17-01



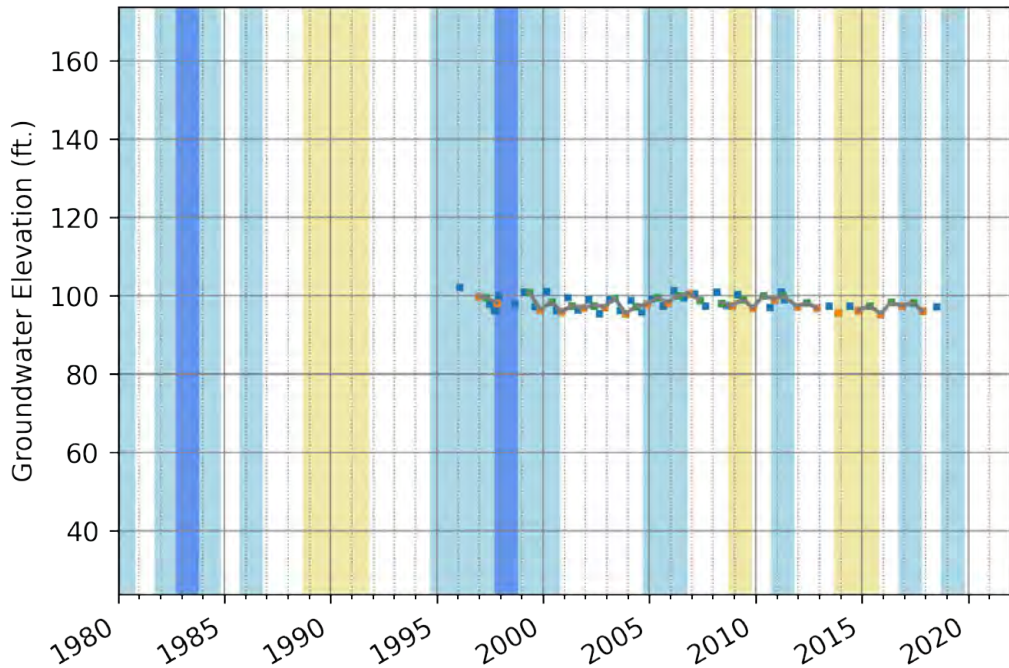


# SRP0095, SRP-I19-01

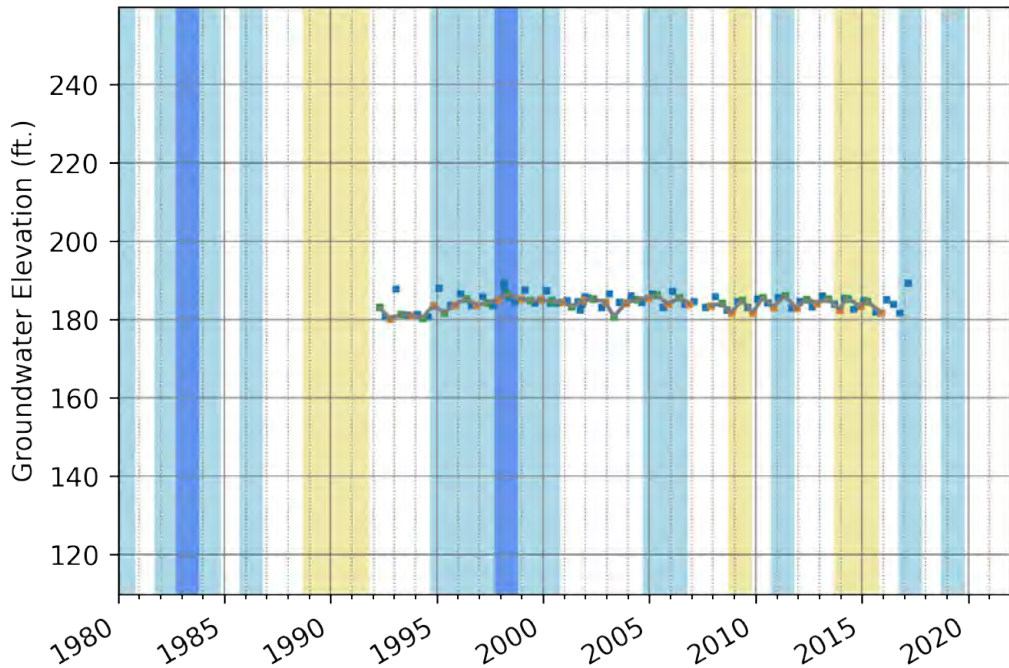




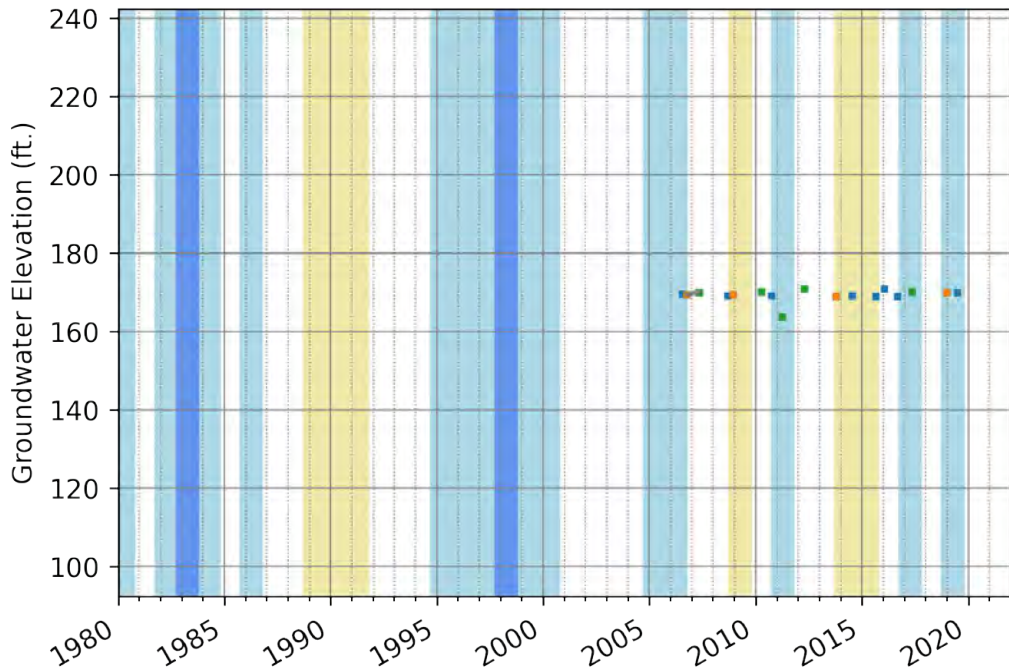
# SRP0096, SRP-I19-02



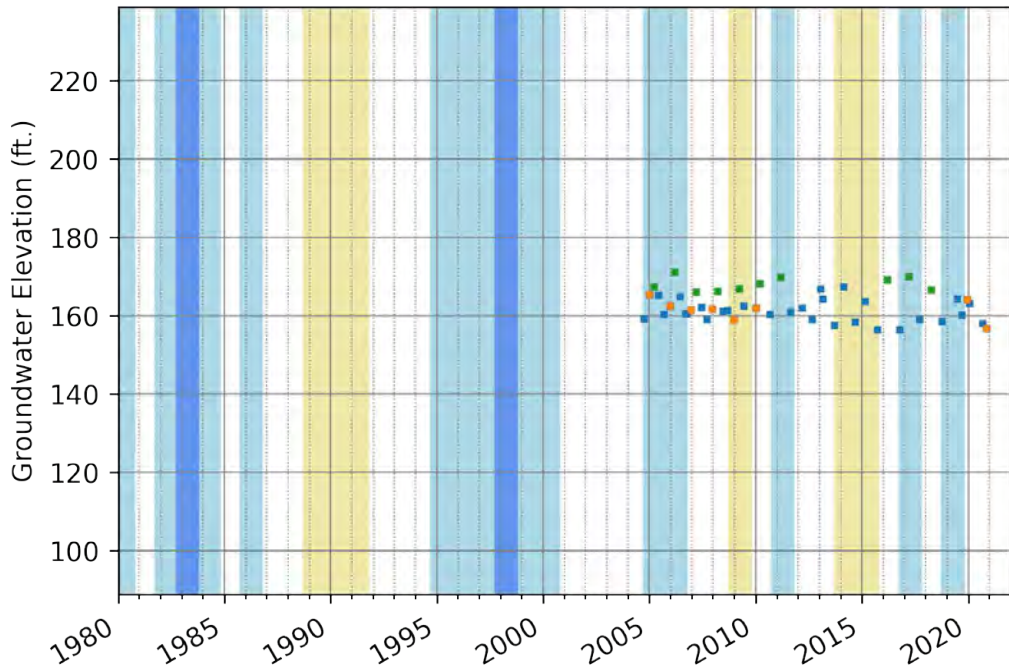
# SRP0099, SRP-J11-01



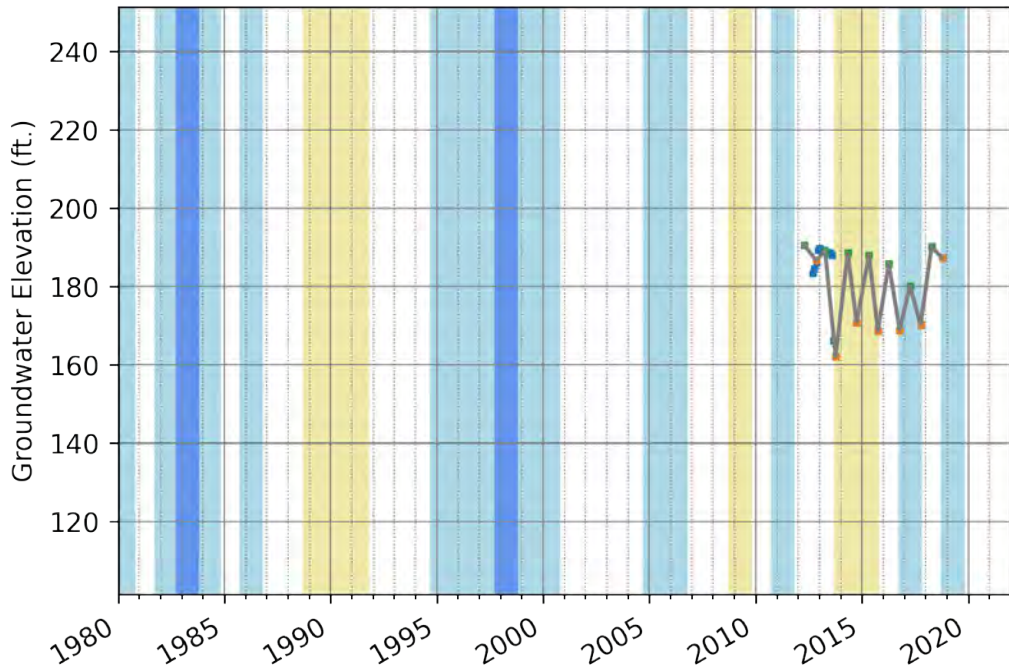
# SRP0100, SRP-J11-02



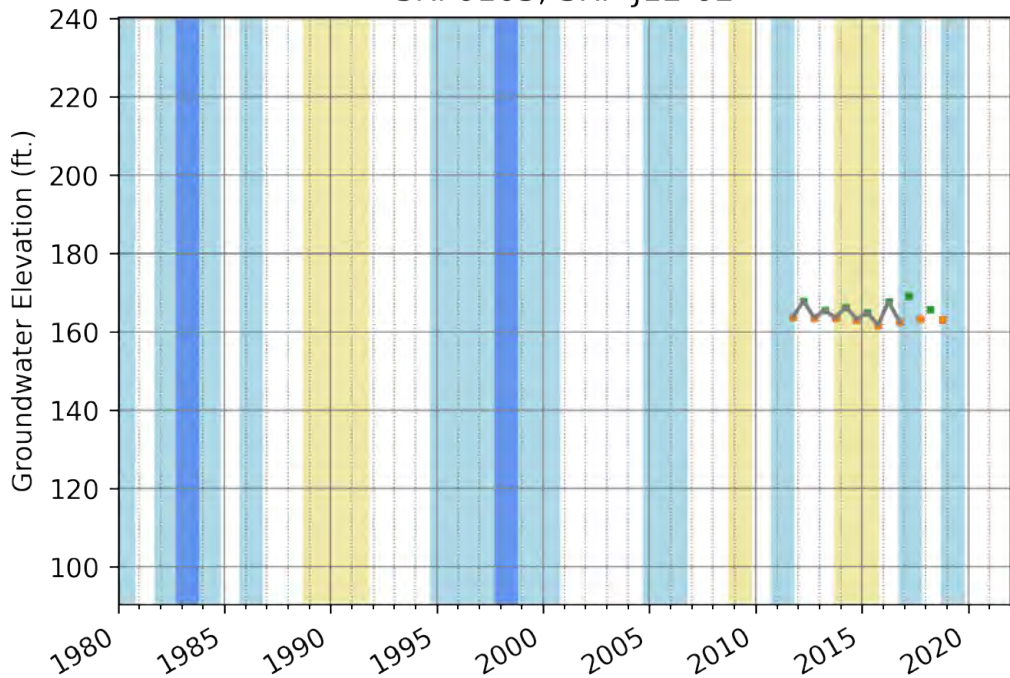
# SRP0101, SRP-J11-03



# SRP0102, SRP-J12-01

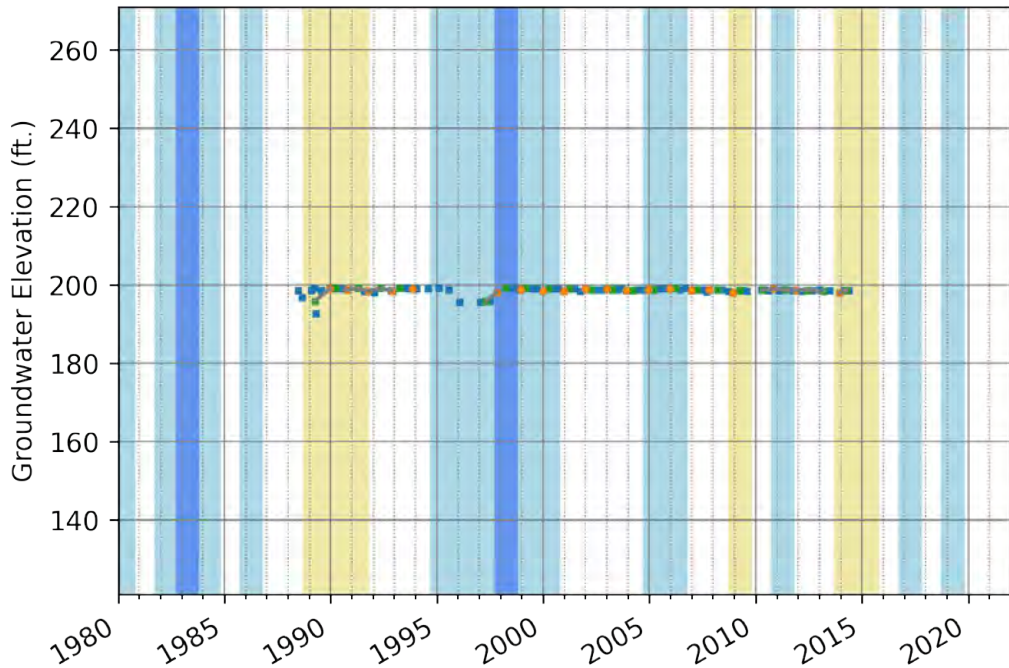


# SRP0103, SRP-J12-02



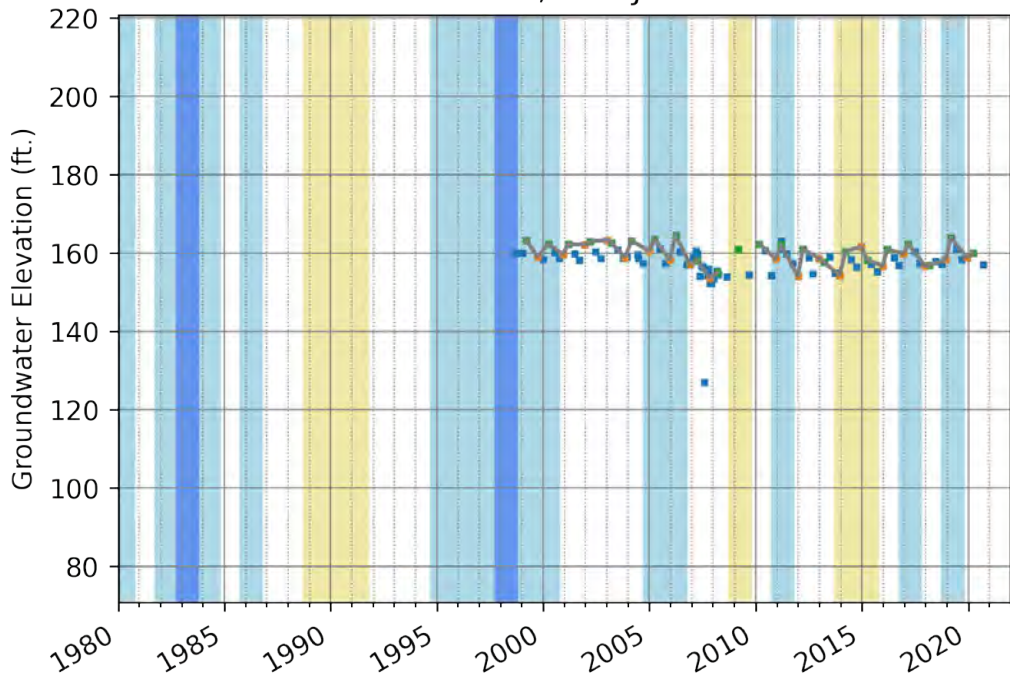


# SRP0104, SRP-J12-03

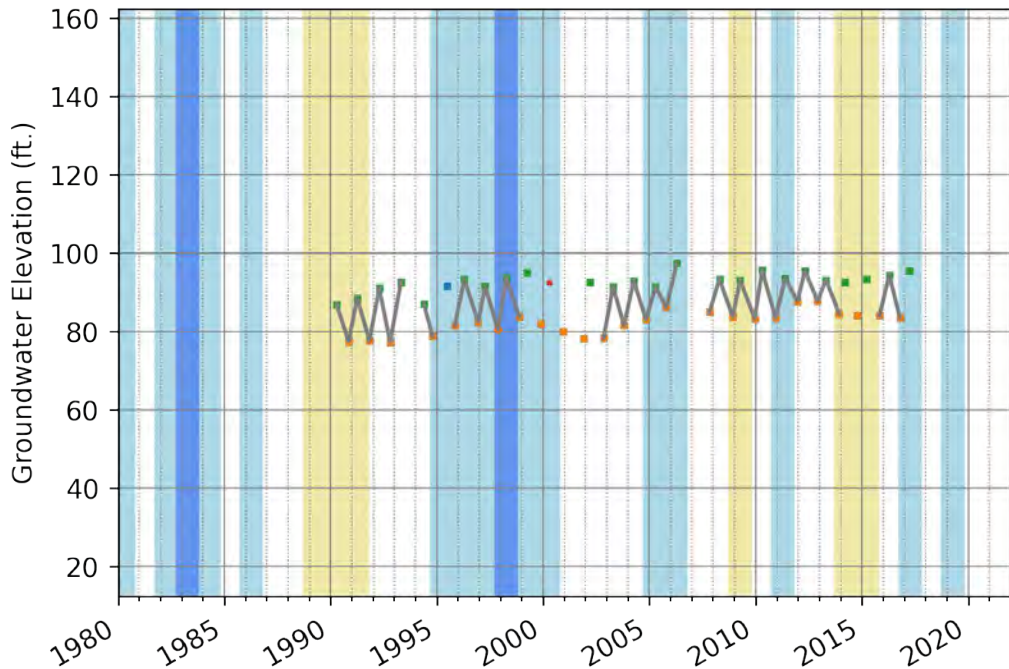




# SRP0105, SRP-J12-05



# SRP0106, SRP-J16-01



# SRP0107, SRP-J17-01

