

**AGENDA
GROUNDWATER BANKING JOINT POWERS AUTHORITY
BOARD OF DIRECTORS**

May 02, 2022

Due to COVID-19, this meeting will be conducted as a teleconference pursuant to the provisions of the Ralph M. Brown Act. All parties/public may attend the meeting via teleconferencing and offer public comments by phone, using the call-in information below or digital internet access.

Participation by members of the Board of Directors will be from remote locations. Public access and participation will only be available telephonically/electronically.

To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below:

Via Web: <https://zoom.us/j/83815086560>
Meeting Number (Access Code): 838 1508 6560
Meeting Password: 982590
Telephone Dial In: (669) 900-6833

As courtesy to the other participants, please mute your phone when you are not speaking.

PLEASE NOTE: Participants joining the meeting will be placed into the lobby when the Board enters closed session. Participants who remain in the “lobby” will automatically be returned to the open session of the Board once the closed session has concluded. Participants who join the meeting while the Board is in closed session will be placed in the waiting room. When the Board has returned to open session, the participants will be automatically added to the meeting.

CALL TO ORDER 2:00 p.m.

ROLL CALL Directors Pierucci, Selvidge, Reinhart, Swan

- Consider adoption of Resolution No. 2022-02– Authorizing AB 361 Teleconference Meeting

**PUBLIC COMMENT
NOTICE**

If you wish to address the Board of Directors on any item, please submit a request to speak via the “chat” feature available when joining the meeting virtually. Remarks are limited to three minutes per speaker on each subject. You may also submit a public comment in advance of the meeting by emailing mmisuraca@rrbwsd.com before 5:00 pm. on April 29, 2022.

ALL VOTES SHALL BE TAKEN BY A ROLL CALL VOTE

1. COMMUNICATIONS TO THE BOARD

- a) Written:
- b) Oral:

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

3. CONSENT ITEMS

- a) Regular Meeting Minutes February 7, 2022

4. JPA ADMINISTRATIVE AND FINANCIAL REPORT

- a) Third Quarter FYE June 30, 2022 Actual to Budget and Full Year Forecast and Cash Call Update (Cheryl)
- b) **Consideration of FYE June 30, 2023 Budget**

5. KERN FAN GROUNDWATER STORAGE PROJECT

- a) **Consideration of Engineering Services Agreements (Dan)**
- b) DWR Update (Fiona)
- c) Water Commission Update (Fiona)
- d) Federal Funding Update (Fiona)
- e) **Consideration of Resolution No. 2022-03 Water Smart Grant Application (Dan)**

6. GENERAL MANAGER'S REPORT

7. OTHER BUSINESS

Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, and make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

8. CLOSED SESSION

a) CLOSED SESSION CONFERENCE WITH REAL PROPERTY
NEGOTIATORS – Pursuant to Government Code Section 54956.8:

Property: Parcels 103-110-02; 103-110-04; 103-110-09; 103-120-14;
103-120-15; 103-120-16; 103-120-17; 103-130-01; 103-130-03; 103-
130-05; 103-130-07; 103-140-02; 103-140-05; 103-140-06; 103-140-12;
103-140-15; 103-140-16; 103-140-17; 103-140-18; 103-140-19; 103-
180-01; 103-180-05; 103-180-07; 103-190-13; 103-190-14; 103-200-23;
103-200-25; 103-200-26; 103-200-27; 103-200-28; 103-200-29; 103-
270-07; 104-270-01,06; 104-260-09,15; 104-280-08,29,30,31,32,33,
34,35; 104-260-08;104-270-28;104-291-07;104-240-31,22,30; 104-250-
20,21; 104-280-01,02,07,19,24,25,27; 104-240-18;104-292-09; 103-170-
09,12,14,15 25-32; 160-010-66, 71; 104-280-18 and possible others all
in County of Kern

Agency negotiators: Dan Bartel

Negotiating parties: Various parties and Groundwater Banking Joint
Powers Authority

Under negotiation: Price and Terms of Payment

- b) CLOSED SESSION – Conference with Legal Counsel - Pending
Litigation Government Code Section 54956.9(d)(1)
- a. City of Bakersfield .v. GBJPA et al. Fresno County Superior Court
Case No. 21CECG03341
 - b. KCWA v. GBJPA et al. Fresno County Superior Court Case No.
21CECG0334

9. OPEN SESSION

General Counsel may announce any reportable actions taken during Closed
Session.

10. ADJOURN

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the above-named Board in connection with a matter subject to discussion or consideration at an open meeting of the Board are available for public inspection by contacting Megan Misuraca at mmisuraca@rrbwsd.com. If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available to the public at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available electronically during the meeting.

Accommodations: Upon request, the Authority will provide for written agenda materials in appropriate alternative formats, and reasonable disability-related modification or accommodation to enable individuals with disabilities to participate in and provide comments at the meeting. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, or alternative format requested at least two days before the meeting. Requests should be emailed

Groundwater Banking Joint Powers Authority Board of Directors' Meeting

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to mmisuraca@rrbwsd.com. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

DECLARATION OF POSTING: I, Megan Misuraca, declare under penalty of perjury, that I am employed by the Rosedale-Rio Bravo Water Storage District and I posted the foregoing Agenda at the District Office on or before April 28, 2022. I, Leslie Bonkowski, declare under penalty of perjury, that I am employed by the Irvine Ranch Water District and I posted the foregoing Agenda at the District Office on or before April 28, 2022.

RESOLUTION NO. 2022-02

A RESOLUTION OF THE GROUNDWATER BANKING JOINT POWERS AUTHORITY (“AUTHORITY”) TO IMPLEMENT TELECONFERENCING REQUIREMENTS DURING A PROCLAIMED STATE OF EMERGENCY BY EXECUTIVE ORDERS N-25-20, N-29-20 AND N-35-20, AND AUTHORIZING REMOTE TELECONFERENCE MEETINGS FOR A THIRTY (30) DAY PERIOD PURSUANT TO BROWN ACT PROVISIONS.

WHEREAS, THE GROUNDWATER BANKING JOINT POWERS AUTHORITY is committed to preserving and ensuring public access and participation in meetings of the Authority; and

WHEREAS, all meetings of the Authority legislative bodies are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend, participate, and watch the Authority’s legislative bodies conduct their business; and

WHEREAS, the Brown Act, Government Code section 54953(e), makes provisions for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition is that a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558; and

WHEREAS, the State Legislature amended the Brown Act through Assembly Bill No. 361 (AB 361) on September 16, 2021; and

WHEREAS, AB 361 amended the Brown Act so that a local agency may use teleconferencing without complying with the regular teleconferencing requirements of the Act, where the legislative body holds a meeting during a proclaimed state of emergency and makes certain findings; and

WHEREAS, Government Code section 54953 requires that the legislative body make additional findings every 30 days in order to continue such teleconferencing.

NOW THEREFORE, the Authority hereby finds, determines, declares, orders, and resolves as follows:

1. That the foregoing recitals are true and correct and incorporates them by this reference.
2. The Board of Directors of the Authority finds, by a majority vote, the following:
 - a. That there exists a proclaimed state of emergency; and

b. State or local officials have imposed or recommended measures to promote social distancing.

3. The Authority is authorized to take all steps and perform all actions necessary to execute and implement this Resolution in compliance with Government Code section 54953.

4. That this Resolution shall take effect May 02, 2022 and shall remain in effect for thirty (30) days thereafter (until June 29, 2022), provided the conditions set forth in Section 2 remain.

PASSED AND ADOPTED by the Authority May 02, 2022, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Chair

ATTEST:

Secretary

**BOARD OF DIRECTORS
GROUNDWATER BANKING JOINT POWERS AUTHORITY
MINUTES OF THE REGULAR BOARD MEETING**

February 07, 2022
2:00 P.M.

Note: This meeting was conducted by teleconference pursuant to and in conformance with Executive Order N-29-20 relating to public meetings during the State of Emergency that was declared as a result of COVID-19

DIRECTORS AND ALTERNATES PRESENT

Roy Pierucci
Peer Swan
Doug Reinhart
Jason Selvidge

DIRECTORS ABSENT

OTHERS PRESENT

Doug Gosling- JPA Legal Counsel
Dan Bartel- RRBWSD
Megan Misuraca- RRBWSD
Cheryl Clary- IRWD
Eileen Lin- IRWD
Fiona Sanchez- IRWD
Robert Jacobson- IRWD
Paul Weghorst- IRWD
Dan Raytis- RRBWSD
Trent Taylor- RRBWSD
Marina Lindsay- IRWD
May Geng-IRWD
Paul Cook- IRWD
Sophia Phuong- IRWD

CALL TO ORDER

President Pierucci called the meeting to order at approximately 2:10 PM.

Mr. Gosling reviewed Resolution 2022-01- Authorizing AB 361 Teleconference Meeting with the Board. A motion was made by Director Reinhart with a second by Director Swan adopting Resolution 2022-01. A roll call vote was taken and the motion unanimously passed.

PUBLIC COMMENT NOTICE

There were no public comments.

1. COMMUNICATIONS TO THE BOARD

- a). Written: None
- b). Oral: None.

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

None.

3. CONSENT ITEMS

a) Special Meeting Minutes December 28, 2021

A motion was made by Director Reinhart with a second by Director Swan to adopt the consent items. A roll call vote was taken and the motion unanimously passed.

4. KERN FAN GROUNDWATER STORAGE PROJECT

a) Second Quarter FYE June 30, 2022 Actual to Budget and Full year Forecast- Ms. Clary briefed the Board on the current actual to budget results for the FYE June 30, 2022 updated with amounts through December 31, 2021.

5. GENERAL MANAGER'S REPORT

a) Property Acquisition Update- Mr. Bartel briefed the Board on the latest property acquisition activities noting the closing of Diamond Farms and Bolthouse properties.

b) Engineering Update- Mr. Bartel briefed the Board on recent activities with the engineering team and the proposed separation of professional services.

c) Feasibility Modeling Update- Ms. Sanchez briefed the Board that under the authority of the General Manager a variance for MBK to complete additional work requested by staff on the final feasibility study was approved.

6. OTHER BUSINESS

a) DWR Update- Ms. Sanchez gave a brief update on the status of the agreement with the Department of Water Resources.

b) Water Commission Update- Ms. Sanchez briefed the Board on the eligibility of additional funding from the Water Commission.

c) Consideration of Land Lease Termination- Mr. Bartel reported on lease termination requirements as part of the purchase and sale agreement of the Bolthouse property on January 26, 2022. A motion was made by Director Swan with a second by Director Selvidge directing staff to send the notice of termination to the Tenant so that construction may begin as scheduled. A roll call vote was taken and the motion unanimously passed.

7. CLOSED SESSION

Mr. Bartel reported there were no items to discuss in closed session.

8. ADJOURN

Director Pierucci adjourned the meeting at 2:38 p.m.

ATTEST:

Authority Secretary

May 2,2022
Prepared by: Sophia Phuong
Reviewed by: Cheryl Clary
Agenda Item: 4a

FY 2022-23 Quarterly Actual to Budget and Forecast Results

DISCUSSION:

The quarterly unaudited actual to budget and forecast results for the nine-month period ended March 31, 2022 is attached as Exhibit "A". The report separates capital and operating expenditures.

The nine-month year to date total expenditures were \$9.4 million compared to a budget of \$29.1 million. Actual expenditures were \$19.7 million or 68% under budget. This is primarily due to lower expenditures than budgeted for property and habitat credit acquisitions and delayed expenses in engineering design consulting and construction. Exhibit "A" provides additional comments.

The full year budget was \$39.7 million compared to the full year forecast of \$9.5 million. This is primarily due to the timing of land acquisitions and delay in design and construction.

No cash call is required at this time.

RECOMMENDATION:

Receive and File.

LIST OF EXHIBITS:

Exhibit "A" – FY 2021-22 Actual to Budget and Forecast Results (Unaudited)

Exhibit A
Groundwater Banking Joint Powers Authority
Unaudited Actual to Budget and Forecast Report
Fiscal Year 2021-22

Task / Account	Task / Account Name	Unaudited Actual 3/31/22	Budget 3/31/22	Budget (Over) /Under	Approved Full Year FY2021- 22 Budget	Forecast Full Year FY2021-22	Forecast (Over) /Under	FY2021-22 Forecast Variance Comment
Kern Fan Groundwater Capital Project								
1.0	Engineering - Planning and Design Staff	\$25,416	\$81,790	\$56,374	\$109,054	\$40,000	\$69,054	
1.1	Grant Administration and Reporting	4,111	3,534	(577)	4,712	5,000	(288)	
1.15	CWC and USBR Feasibility Studies	73,689	25,777	(47,912)	34,370	82,000	(47,630)	
1.16	JPA Administration	53,378	82,015	28,637	109,354	70,000	39,354	
1.4	Supplemental Environmental Impact Report	175	67,461	67,286	89,948	200	89,748	
1.5	Agreements with State Agencies	3,032	39,164	36,132	52,219	4,000	48,219	
1.8	Property Pre-Acquisition Work and Geophysical Stur	39,503	65,678	26,175	87,572	40,000	47,572	
3.0	Engineering Design - Outside	11,008	2,057,211	2,046,203	3,793,310	60,000	3,733,310	Award of design contract delayed till May 2022
4.0	Engineering CA&I - Outside		83,125	83,125	269,500	-	269,500	Delay in construction
5.0	Construction		2,569,869	2,569,869	8,704,949	-	8,704,949	Delay in construction
5.1	Land	9,002,268	21,190,000	12,187,732	23,065,000	9,002,300	14,062,700	Additional land acquisition on hold
6.0	Legal JPA	41,805	155,954	114,149	196,772	55,000	141,772	Expenditures delayed and contingent upon litigation
900.0	Preliminary Design Report and Feasibility Report	102,294		(102,294)		105,000	(105,000)	CWC Feasibility report required significant additional modeling and consultant assistance. Also DJA costs for PDR proposal process.
906.0	Development of Agreement with FWS		10,000	10,000	10,000	-	10,000	
908.0	Development of Agreement with DWR	1,103	20,000	18,897	20,000	5,000	15,000	
916.0	Habitat Credit Purchase		2,400,000	2,400,000	2,400,000	-	2,400,000	Delayed pending final alignment
918.0	Environmental	6,038		(6,038)		6,000		
922.0	Permitting				195,000	-	195,000	Delayed - contingent upon litigation
928.0	PG&E Service		150,000	150,000	306,250	-	306,250	Deferred
930.0	Bid Phase		37,500	37,500	75,000	-	75,000	
	Capital Project Total	9,363,820	29,039,078	19,675,258	39,523,010	9,474,500	30,054,510	
Operating Income								
460022	Lease Revenue	(13,943)		13,943		(33,200)	33,200	
	Operating Income Total	(13,943)		13,943		(33,200)	33,200	
Operating Expense								
699115	Website Maintenance	1,150		(1,150)		1,200	(1,200)	
699134	Administration/Management	31,703	91,382	59,679	122,000	43,000	79,000	
699135	Audit	5,000	5,000		5,000	5,000		
699136	Bank Charges	1,071	5,250	4,179	7,000	1,500	5,500	
699137	Insurance	2,260		(2,260)	1,350	2,300	(950)	
699139	Membership	511		(511)		500	(500)	
	Operating Expense Total	41,695	101,632	59,937	135,350	53,500	81,850	
Total		\$9,391,572	\$29,140,710	\$19,749,138	\$39,658,360	\$9,494,800	\$30,169,560	

Note:

(1) Actual amounts included labor and consultants charges.

May 2, 2022
Prepared by: Sophia Phuong
Reviewed by: Cheryl Clary
Agenda Item: 4b

GBJPA Proposed FY2022-23 Budget

DISCUSSION:

The proposed \$5.6 million budget for the Fiscal Year (FY) 2022-23 is attached as Exhibit "A" and includes both capital and operating expenses. Staff is proposing a one year budget versus a multi-year budget as there are too many unknowns to reasonably estimate expenditures beyond this fiscal year.

As shown in Exhibit "A", the proposed \$5.6 million budget reflects a decrease of \$34.1 million compared to the prior year's \$39.7 million approved budget. The decrease is primarily due to no anticipated land acquisitions in FY2022-23.

No cash call is required at this time.

RECOMMENDATION:

That the Board approve the adoption of the FY2022-23 budget.

LIST OF EXHIBITS:

Exhibit "A" – GBJPA Proposed FY2022-23 Budget

Exhibit A
Groundwater Banking Joint Powers Authority
Proposed Budget
Proposed Budget FY2022-23

	FY2021-22 Actual (As of 3/31/22)	FY2021-22 Full Year Forecast (As of 3/31/22)	Approved FY2021-22 Budget	Proposed FY2022-23 Budget	\$ Increase /(Decrease)	% Increase /(Decrease)
Kern Fan Groundwater Capital Project						
Engineering - Planning and Design Staff	\$25,416	\$40,000	\$109,054	\$28,700	(\$80,354)	-74%
Grant Administration and Reporting	4,111	5,000	4,712	25,200	20,488	435%
CWC and USBR Feasibility Studies	73,689	82,000	34,370	37,000	2,630	8%
JPA Administration	53,378	70,000	109,354	74,400	(34,954)	-32%
Supplemental Environmental Impact Report	175	200	89,948	17,500	(72,448)	-81%
Agreements with State Agencies	3,032	4,000	52,219	12,000	(40,219)	-77%
Property Pre-Acquisition Work and Geophysical Study	39,503	40,000	87,572	0	(87,572)	-100%
Engineering Design - Consultants	11,008	60,000	3,793,310	1,522,000	(2,271,310)	-60%
Engineering CA&I- Outside	0	0	269,500	337,500	68,000	25%
Construction	0	0	8,704,949	3,262,500	(5,442,449)	-63%
Land	9,002,268	9,002,300	23,065,000	0	(23,065,000)	-100%
Legal JPA	41,805	55,000	196,772	125,700	(71,072)	-36%
Preliminary Design Report and Feasibility Report	102,294	105,000	0	9,500	9,500	100%
Development of Agreement with FWS	0	0	10,000	0	(10,000)	-100%
Development of Agreement with DWR	1,103	5,000	20,000	22,500	2,500	13%
Habitat Credit Purchase	0	0	2,400,000	0	(2,400,000)	-100%
Environmental	6,038	6,000	0	50,000	50,000	100%
Permitting	0	0	195,000	0	(195,000)	-100%
PG&E Service	0	0	306,250	0	(306,250)	-100%
Bid Phase	0	0	75,000	0	(75,000)	-100%
Capital Project Total	9,363,820	9,474,500	39,523,010	5,524,500	(33,998,510)	-86%
Operating Income						
Lease Revenue	(13,943)	(33,200)		(32,200)	(32,200)	100%
Operating Income Total	(13,943)	(33,200)	0	(32,200)	(32,200)	100%
Operating Expense						
Administration/Management	31,703	43,000	122,000	50,600	(71,400)	-59%
General Liability Insurance	2,260	2,300	1,350	3,900	2,550	189%
Legal	0	0	0	0	0	0%
Bank Charges	1,071	1,500	7,000	1,700	(5,300)	-76%
Audit	5,000	5,000	5,000	5,000	0	0%
Website Maintenance	1,150	1,200	0	1,000	1,000	100%
Membership	511	500	0	600	600	100%
Operating Expense Total	41,695	53,500	135,350	62,800	(72,550)	-54%
Total	\$9,391,572	\$9,494,800	\$39,658,360	\$5,555,100	(\$34,103,260)	-86%

Kern Fan Groundwater Storage Project – Task No. 1 Engineering Professional Services

DISCUSSION

Proposals were received for the five design packages for the Kern Fan Groundwater Storage Project on October 20th, 2021. Interviews were held and the design packages were recommended to be awarded in a Firm Selection Recommendation memorandum dated November 29th, 2021. The design packages were awarded as follows:

- DP#1 “Recharge Basins & Infrastructure” – Meyer Civil Engineering/AECOM
- DP#2 “Recovery Wells” – GEI/HDR/Zeiders Consulting
- DP#3 “Aqueduct Turnout” – Stantec/P&P/Dahl
- DP#4 “Conveyance Facilities” – Stantec/P&P/Dahl
- DP#5 “SCADA and PLC Programming” – ICScada

The GBJPA has acquired a portion of the initial Phase I project property as identified below:

- **Bolthouse Property** – Approximately 200 acres located on the west side of Enos Lane and north of the Goose Lake Channel in Section 26, T29S, R25E also being APN’s 104-240-22, 104-240-30, and 104-240-31.
- **Diamond Property** – Approximately 160 acres located north of Stockdale Hwy and east of the Rosedale Intake Canal in Section 35, T29S, R25E also being APN 104-291-07.

The selected firms above have been asked to provide engineering professional services for Task No. 1 which involves the following:

- MCE/AECOM – Task No. 1: Work associated with DP#1 to develop the Bolthouse Property and Diamond Property for recharge such as recharge basin layout, levee embankment design, habitat elements, inter-basin structures, well pads, and well conveyance pipelines. This shall include, but not be limited to, topographic surveying, geotechnical investigation, preliminary design study, and design development of 60% level plans and specifications for each property.
The budget proposal for this work is a not-to-exceed amount of \$199,960.00.
- GEI/HDR/Zeiders – Task No. 1: Work associated with DP#2 to develop the Bolthouse Property and Diamond Property for recovery such as construction of recovery wells and the equipping of those wells with pumps, motors, discharge piping, and electrical. This

shall include, but not be limited to, well siting, well pad layout, well conveyance hydraulic analysis, and development of 30% plans and specifications for well design and well equipping on each property.¹

The budget proposal for this work is a not-to-exceed amount of \$96,912.00.

- Stantec/P&P/Dahl – Task No. 1: Work associated with DP#3 and DP#4 to evaluate aqueduct turnout locations and conveyance alignment alternatives and develop a feasibility report. The initial work at this time will focus on two alignments, 5A and 5B, associated with a joint-use project with the Kern County Water Agency (KCWA) that would endeavor to solve the capacity issues in Pool 1 of the Cross Valley Canal (CVC) while providing up to approximately 450 cfs for the Kern Fan Groundwater Storage Project.

This work has been divided into two phases:

The first phase will be the development of a technical memorandum that can be used to present the proposed alternatives to KCWA. It will include a conceptual evaluation of the joint-use turnouts and alignments including preliminary hydraulics, turnout requirements, constructability, and construction sequencing. This work will be presented to the KCWA to gauge their level of interest in a joint-use project. If a joint-use project is desirable to the KCWA and GBJPA, then the second phase of the work will be implemented.

The budget proposal for the Phase 1 work is a not-to-exceed amount of \$200,683.00.

The second phase will be the development of a detailed feasibility report that includes hydraulic analyses, optimized cross sections, pump station requirements, turnout options, utility research, land ownership, right-of-way requirements, environmental constraints, operational descriptions, benefits, and cost estimates.

The budget proposal for the Phase 2 work is a not-to-exceed amount of \$311,456.00.

In addition, Dee Jaspar & Associates, Inc. (DJA) is providing project management and administration on behalf of the GBJPA.

- DJA – Task No. 1: The scope of work includes project management, establishment of project survey control, and grant application assistance.

The work for project management includes general project correspondence and communication, facilitating project meetings, reviewing and approving monthly invoices, preparing monthly project reports, and providing a technical peer review of all engineering work.

¹ This cost proposal does not include costs associated with well siting work and well design by Tom Harder & Associates. This work is to be performed directly with the GBJPA.

The work to establish project survey control includes field surveying and mapping to develop horizontal and vertical survey control for the project so that all engineering consultants are operating on the same datum control.

The work to assist with grant applications will involve the preparation of project cost estimates for Task No. 1.

The budget proposal for this work is a not-to-exceed amount of \$120,328.00.

RECOMMENDATION

It is recommended that Professional Services Agreements be issued to the Engineering Consultants for Task No. 1 as outlined above and detailed in the attached scope of work and cost proposals. The not-to-exceed amount for Task No. 1 is \$929,339.00.

LIST OF EXHIBITS

- Exhibit A: MCE/AECOM Scope of Work and Cost Proposal dated March 28, 2022
- Exhibit B: GEI/HDR/Zeiders Scope of Work and Cost Proposal dated April 8, 2022
- Exhibit C: Stantec/P&P/Dahl Scope of Work and Cost Proposal dated April 13, 2022
- Exhibit D: DJA Scope of Work and Cost Proposal dated April 15, 2022

EXHIBIT A
MCE/AECOM SCOPE OF WORK & PROPOSAL

March 28, 2022

Mr. Dan Bartel, GM
Groundwater Banking Joint Powers Authority
849 Allen Road
Bakersfield, CA 93314

In regard to: Proposal for Engineering Services for the Kern Fan Groundwater Storage Project Phase 1 & 2 Basins

Dear Mr. Bartel,

Please find attached our proposal for the Kern Fan Groundwater Storage Project.

Objective: to provide 60% status plans for the eventual construction of two new recharge basins: Basin 1: 200 acres in the easterly portion of Section 26, 29/25 and Basin 2: 160 acres in the SW quarter of Section 35, 29/25. The proposed engineering work to accomplish this objective is as follows:

SCOPE OF WORK:

1. Provide detailed topography mapping.
 - a. On ground survey tying into the approved survey vertical and horizontal datums for the Kern Fan project.
 - b. Tie to public monuments.
 - c. On ground point shots for existing structures of relevance.
 - d. Cross sections of the Goose Lake Slough from points of 1000 feet east and 100 feet west of Enos Lane. Detail existing structures on the slough.
 - e. UAS flight of Basin (1 with development of ground surface topography and provision of rectified aerial topography.
 - i. UAS flight will include Goose Lake Sough within boundaries described in items 1.d. above.
 - f. On ground survey of Basin (2 between tree rows adequate to accurate develop lay of land.
 - i. UAS fight to augment on ground points and provide rectified aerial topography.
 - g. Pickup relevant on ground information of existing infrastructure items for possible service to and from the new recharge basins.
2. Provide Geotechnical Investigation & Report for Basins 1 & 2.
 - a. Scope of the Geotechnical Investigation is to be in accordance with Technical Memorandum No. 5, "Geotechnical Investigation" for the Phase I and & II Recharge Basins and as detailed in pages 8 & 9 of the referenced TM.
 - b. The scale of the investigation will be adjusted to the needs of this smaller project.

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3. Preliminary Design Study.

- a. The basins will be studied and preliminary designs prepared to the purpose of final design in accordance with Technical Memorandum No. 9, "Recharge Basin Requirements". The elements of design included are not necessarily limited to:
 - i. Recharge Basin Layout/Orientation – minimize wind erosion potential.
 - ii. Levee Embankments/Design – Subbasins (20 acres to 80 acres in size) as required to fit the lay of the land.
 - iii. Design Considerations
 - iv. Habitat Elements
 - v. Inter-basin Structures – Develop standardized structure similar in nature to recent RRBWSD applications.
 - vi. Well Pipelines – Design well discharge pipelines to point of connection of with the collection system.
 - vii. Site Fence Requirements
 - viii. Work with other consultants in regard to well pads and collection pipelines.
- b. Studies are to be performed to analyze methods of water supply to the new basins. These are to include sources from:
 - i. The Goose Lake Slough for Basin 1),
 - ii. The Central Intake Pump Station and the Central Intake Pipeline as sourced from the CVC located in the east quarter of Section 1, 30/25 for Basin 1).
 - iii. The Rosedale Intake Canal as sourced from the CVC at the west quarter corner of Section 2, 30/25 for Basin 2),
 - iv. Through the Strand Ranch basins for Basin 2).
- c. The preliminary design phase will be purposed to determine the best design configurations to fit the project needs, to provide scalable concept plans to properly present the project and to determine the preliminary cost of the project.
- d. Once the preliminary design is prepared and presented, a value engineering study will be performed based on the Authority's input and concerns.

4. Design Development.

- a. The approved preliminary design is to be detailed to describe the plans of works necessary to construct the project.
- b. Drawings will be prepared to the ultimate purpose of final construction plan completion.
- c. The first milestone is to provide 30% complete plans.
- d. Revisions will be made to the plans based on the review of the 30% complete plans.
- e. The second and final milestone for this defined work is to provide 60% complete plans.

- f. Revisions will be made to the plans based on the review of the 60% complete plans.
- g. The project cost estimate will be updated based on the approved 60% plans.
- 5. MCE is to attend regular project review meetings (at least once monthly).
- 6. MCE is to coordinate the work with other involved design consultants.
- 7. MCE is to make presentations as required.
- 8. Mr. Curtis Skaggs is to be the point of contact.

SCHEDULE:

Deliverables are to comply with the following dates:

Phase 1 – 200 acre Bolthouse Property

30% Level Design	June 2022
60% Level Design	August 2022

Phase 2 – 160 acre Diamond Property

30% Level Design	September 2022
60% Level Design	December 2022

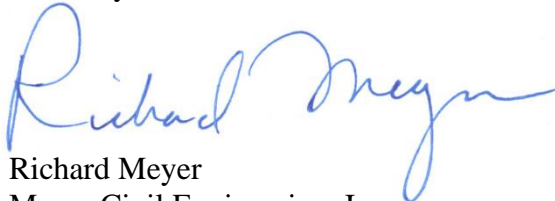
SCHEDULE OF FEES:

The time and material, not to exceed fee for the above described scope of work is: **\$199,960.00.**

Please refer to the attached work breakdown schedule for details.

We thank you for the opportunity to provide this proposal. It would be our utmost pleasure to serve the Authority in this great work.

Sincerely,



Richard Meyer
Meyer Civil Engineering, Inc.

**RECHARGE BASINS PHASES 1 and 2
WORK BREAKDOWN SCHEDULE**

ITEM	Principal Engr Project Manager	Senior Civil Engineer	Civil Engineer	Licensed Surveyor (Office)	Associate Engineer	Survey Crew	Drafter(s)	Design Drafter(s)	Structural Engineer	Electrical Engineer	Admin. Assistant	GPS	Drone	Materials/ Mileage	Extension	
	\$180/hr	\$145/hr	\$125/hr	\$141/hr	\$100/hr	\$370/hr	\$100/hr	\$150/hr	\$290/hr	\$290/hr	\$55/hr	\$65/hr	\$135/hr	LS		
Design Package #1 (Recharge Basins Phases 1 & 2 with Infrastructure):																
1	Review Preliminary Work and Technical Memoranda and provide feedback, questions, concerns, suggestions, and/or alternatives	14.9hr	10.6hr	-	-	-	-	-	-	-	-	-	-	\$ -	\$4,219	
2	Review and Incorporation of Environmental Mitigation Measures	9.0hr	8.6hr	-	-	-	-	-	-	-	-	-	-	\$ -	\$2,867	
3	Provide Geotechnical Investigation and Report	1.3hr	1.1hr	-	-	-	-	-	-	-	-	-	-	\$ 30,624.00	\$31,018	
4	Provide Topographic Surveying	-	-	-	32.0hr	-	46.8hr	12.8hr	-	-	-	46.8hr	6.0hr	\$ 400.00	\$27,375	
5	Provide Preliminary Engineering Design & Value Engineering	40.5hr	38.4hr	-	-	38.4hr	-	38.4hr	-	-	-	-	-	\$ -	\$20,538	
6	Attendance and Participation in Monthly Project Design Meetings	23.5hr	21.4hr	-	-	-	-	-	-	-	2.1hr	-	-	\$ -	\$7,449	
7	Preparation of 30% Level Design Drawings for Review and Comment	62.6hr	84.0hr	-	-	84.0hr	-	70.6hr	13.3hr	8.0hr	8.0hr	12.8hr	-	\$ -	\$46,247	
8	Preparation of 60% Level Design Drawings for Review and Comment	56.0hr	73.3hr	-	-	73.3hr	-	57.3hr	20.0hr	16.0hr	13.3hr	9.6hr	-	\$ -	\$45,794	
9	Revisions per 60% Review	12.0hr	12.0hr	-	-	14.0hr	-	20.0hr	4.0hr	-	2.0hr	-	-	\$ -	\$8,010	
10	Markup of AECOM costs														\$6,444	
60% COMPLETE TOTALS:		219.8hr	249.4hr	-	32.0hr	209.7hr	46.8hr	199.1hr	37.3hr	24.0hr	21.3hr	26.5hr	46.8hr	6.0hr	\$ 31,024.00	\$199,960.00

EXHIBIT B
GEI/HDR/ZEIDERS SCOPE OF WORK & PROPOSAL

April 8, 2022



Consulting
Engineers and
Scientists

Mr. Dan Bartel, General Manager
Groundwater Banking Joint Powers Authority
849 Allen Road
Bakersfield, CA 93314

Subject: Cost Proposal for Phase IA Recovery Well Design Package

Dear Mr. Bartel:

GEI is pleased to provide this proposal for preparation of the Phase 1A Recovery Well Design Package. GEI notes that the parcels shown in **Figure 1**, provided by Mr. Curtis Skaggs on February 16, 2022, are smaller than the parcels shown in the Request For Proposals (RFP) package issued by the Groundwater Banking Joint Powers Authority (GBJPA) in Fall 2021. It appears that the total areas of the parcels shown in Figure 1 are approximately one-third of the original project area. As a result, GEI has assumed for the purpose of this proposal that this Phase IA work is one-third of the total project wells, i.e., four wells in total.

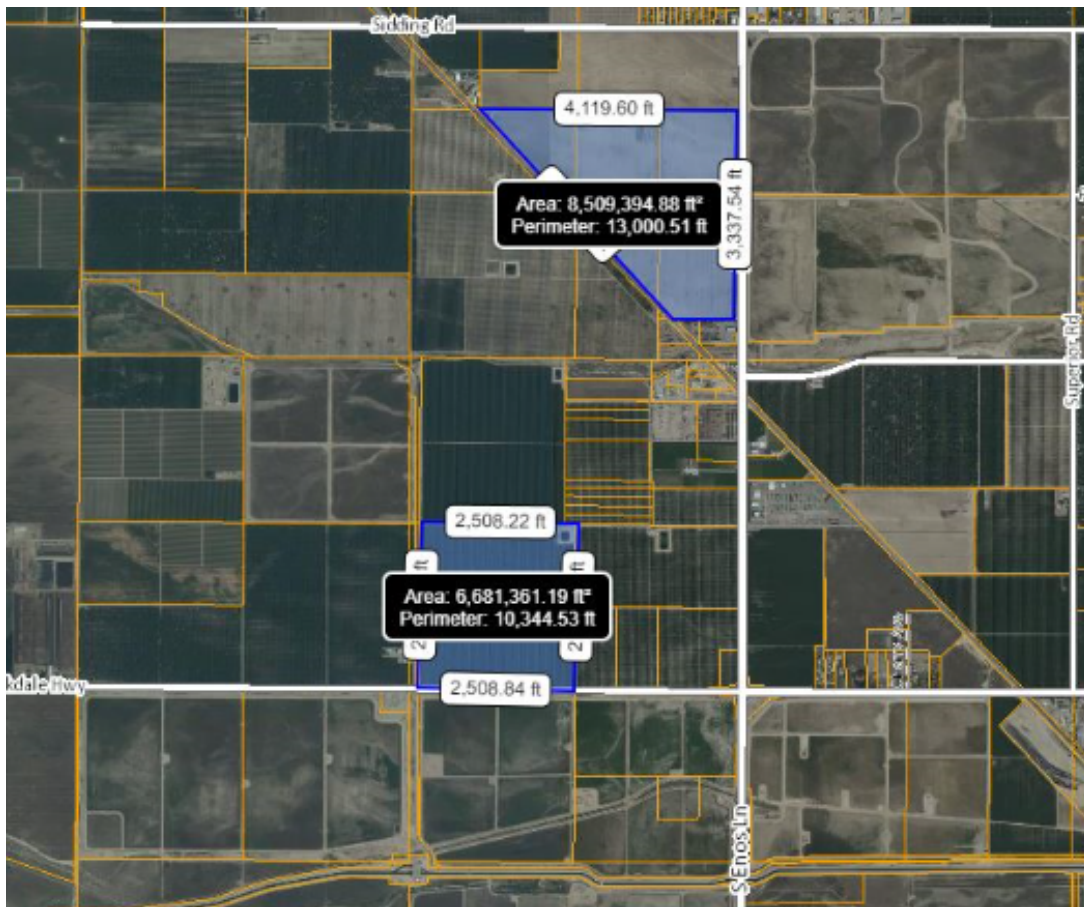


Figure 1 – Phase IA Project Area
www.geiconsultants.com

GEI Consultants, Inc.
5001 California Avenue, Suite 120, Bakersfield, CA 93309
661.327.7601 Fax 916.631.4501

Scope:

Task 1: Project Management and Coordination

This task includes staff scheduling, internal coordination within GEI Team, coordination with GBJPA and other consultants and preparing monthly progress reports.

Deliverables:

- Meeting Agendas and Summaries
- Progress Reports

Task 2: 30% Engineering Design and Specifications

It is our understanding that GBJPA hydrogeologist Mr. Thomas Harder will identify locations for up to four wells in the area shown in Figure 1. GEI Team will work in close coordination with Mr. Harder and will prepare design drawings and specifications for these four wells. As part of this initial effort, GEI team will prepare 30% well design drawings and specifications. The well specs will include among many other things detailed descriptions of operating hours, acceptable drilling methods and procedures, sanitary seal requirements, pilot and reamed borehole diameters and depths, sediment sampling, geophysical logging and well disinfection procedures.

The GEI Team will also prepare 30% design drawings of the above-ground facilities concurrently. The GEI Team will also provide input on well pad size and orientation with respect to planned well equipment.

The GEI Team will also prepare a preliminary design report summarizing the proposed improvements for equipping the well, pump and motor sizing, mechanical improvements, pump control strategy, and electrical improvements. This report would include required hydraulic calculations and grade lines for conveyance to the CVC or to the Slough.

Deliverables:

- 30% Well Design and Specifications
- Preliminary Design Report
- 30% Well Equipping Design

GEI Team:

As proposed in the response submitted to GBJPA's RFP in Fall 2021, GEI Team comprises of GEI, HDR and Zeiders Consulting. For this Task Order, it is anticipated that, Zeiders Consulting will lead the above ground design and provide QA/QC and support services for below ground design. GEI as the Prime will provide project management services, prepare specifications, bid documents, provide necessary staff support and perform QA/QC as

required. HDR will provide the required mechanical and electrical support services along with any additional staff support as required.

Budget:

Budget estimate for the completion of Phase IA work identified above is estimated to be \$ **96,912**. Additional details regarding this budget estimate are provided in **Table 1** on next page.

We appreciate the opportunity to work with the GBJPA and are deeply committed to successfully design and partner with you in constructing the groundwater banking project. Please do not hesitate to contact me at 916.388.4166 or sgala@geiconsultants.com if you have questions about this proposal.

Sincerely,

Satya Gala, Ph.D., P.E., P.M.P.
Vice President



Consulting
Engineers and
Scientists

GROUNDWATER BANKING JOINT POWERS AUTHORITY (GBJPA)										
KERN FAN GROUNDWATER STORAGE PROJECT										
DESIGN PACKAGE NO. 2: RECOVERY WELLS										
TASK ORDER: 1		Principal	Senior Engineer II	Senior Engineer I	Project Engineer	CAD	Staff Engineer	Admin	Total	
		298	275	240	200	150	150	120	Hours	\$
		\$/hr	\$/hr	\$/hr	\$/hr	\$/hr	\$/hr	\$/hr		
Sub-Task No.	Sub-Task Name									
1.1	Project Management and Coordination	40	0	0	0	0	0	12	52	13,360
1.2	30% Engineering Design and Specifications	24	80	60	80	80	80	0	404	83,552
Total		64	80	60	80	80	80	12	456	96,912

EXHIBIT C

STANTEC/P&P/DAHL SCOPE OF WORK & PROPOSAL



Stantec Consulting Services Inc.
38 Technology Drive
Irvine CA 92618-5312

April 8, 2022

Project/File: KERN FAN GROUNDWATER STORAGE PROJECT

Dan Bartel - Engineering Manager
Groundwater Banking Joint Powers Authority
849 Allen Road
Bakersfield, California 93314

Dan Bartel - Engineering Manager, Groundwater Banking Joint Powers Authority

Reference: Kern Fan Groundwater Storage Project – Conveyance Alignment Alternatives 5A and 5B Feasibility Report

Stantec has developed the following scope of services to evaluate alignment alternatives 5A and 5B and develop a feasibility report as requested by the GBJPA. Our scope of services is focused on preparing a technical analysis that will serve as the proof of concept to enhance the existing flow condition along the Cross Valley Canal and also provide for the required conveyance capacity for the Kern Fan Groundwater Storage Project. As outlined in our proposal, Stantec will develop our analyses in a step-wise fashion that will provide enough technical (hydraulic) information to prove the potential of improving flow conditions along the Cross Valley Canal as to prepare a presentation to the Kern County Water Agency. Dependent on the receptiveness of the Kern County Water Agency on the concept of a Joint Works Project, Stantec will then develop a feasibility report to further develop the overall project, for final consideration of the Groundwater Bank Joint Powers Authority.

We look forward to discussing the scope and fee presented here based on your review comments. Please feel free to call me at (949) 413-1620 at your convenience.

Respectfully yours,

A handwritten signature in black ink, appearing to read "Joseph Long", written over a large, stylized scribble.

Joseph Long PE
Senior Principal
Phone: (949) 923-6011
Mobile: (949) 413-1620
joseph.long@stantec.com

Attachment: [None]

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

Kern Fan Groundwater Storage Project

Conveyance Alternatives 5A and 5B Feasibility Report

Introduction

Stantec has worked in conjunction with the Groundwater Banking Joint Powers Authority (GBJPA) to develop two alternative alignments identified as Alternatives 5A and 5B as shown in Figure 1. These alternatives have been developed as an effort to coordinate conveyance enhancements to the existing Cross Valley Canal and provide for the required delivery/return conveyance system for the proposed Kern-Fan Groundwater Recharge Project. The proposed alternatives are being considered as an effort to maximize the utility of construction costs associated with the proposed improvements for the Kern-Fan Groundwater Storage Project and provide operational enhancements and flexibility to the existing Cross Valley Canal. The combined project will provide operational benefits to the overall community at-large by developing what will be referred to as the Joint-Works Project. The general intent of the Joint-Works Project is to provide the required 500 cfs deliveries from the California Aqueduct to the Kern Fan Groundwater Storage Project while reestablishing the desired flows to the Cross-Valley Canal to improve operational conditions along the Cross-Valley Canal.

The Joint-Works Project Alternative will be developed in a two-step phased approach. The first phase effort will be to develop a technical concept proving the initial hydraulics requirements for the proposed delivery system, develop a construction sequencing approach that minimizes potential service shut-downs along the Cross Valley Canal, and identify the potential benefits for both the Kern-Fan Project and the Cross Valley Canal. Upon the completion of the concept proofs, the GBJPA and Stantec will collectively present the concepts and benefits to the Kern County Water Agency to measure the acceptance of the overall concept and approach. If the Kern County Water Agency is not supportive of a Joint-Works Project, no additional effort will be expended on furthering the project concept. In the event Kern County Water Agency is supportive, Stantec will further develop the project concept as described as the second level of effort.

The second level of effort will be to further the development of the conceptual plan with detailed hydraulics, identification of the required conveyance cross-sections, establish final alignments, prepare a budgetary opinion of probable construction costs, review potential environmental constraints, and identify potentially affected land use disruptions due to construction activities and/or needed right-of-way takes. This will culminate into development of a Feasibility Report and GBJPA approval of a preferred project alternative.

Joint-Works Project Alternative Descriptions

The initial efforts will be based on the following description of the Joint-Works Project:

Joint-Works Project Alternative Alignment No. 5A – (Combined Kern County Water Agency / Rosedale Rio-Bravo) – As shown in Figure 1, The Joint-Works Project will combine the existing Cross Valley Canal existing California Aqueduct Turnouts providing combined capacity to meet the conveyance requirements for both the Cross Valley Canal and the Kern-Fan Groundwater Storage Project. The capacity increase at the California Aqueduct Turnouts will be accomplished by reconfiguring the discharge pipes on the downstream side of the turnout structures and therefore decreasing the existing head losses through the turnout facilities. Upon discharging into the Cross Valley Canal, a portion of the existing canal will be reconfigured to incorporate a new bifurcation structure splitting flows between the new Kern-Fan/Cross Valley conveyance system and the existing Cross Valley Canal. From the new bifurcation structure, the Kern-Fan/Cross Valley conveyance system will parallel the existing Cross Valley Canal to a new delivery point on the Cross-Valley Canal upstream of Pump Station No. 1. The Kern-Fan flows will diverge off the Kern-Fan/Cross-Valley conveyance system approximately midpoint between the California Aqueduct and Pump Station No. 1 at an un-named farm road (prolongation of Cannon Street) and flow north to Interstate-5 crossing and continue to an un-named farm road (Johnson Road) approximately one mile north of

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

Stockdale Highway, continuing easterly along the un-named farm road to approximately ½ miles west of the Rosedale Intake Canal.

Alternative Alignment No. 5B – (Combined Kern County Water Agency / Rosedale Rio-Bravo to Cross Valley Canal Pumping Plant 1) – As shown in Figure 1, The Joint-Works will combine the existing Cross-Valley Canal California Aqueduct Turnouts providing combined capacity to meet the conveyance requirements for both the Cross-Valley Canal and the Kern-Fan Groundwater Storage Project. The capacity increase at the California Aqueduct Turnouts will be accomplished by reconfiguring the discharge pipes on the downstream side of the turn-out structure decreasing the existing head losses through the turnout facility. Upon discharging into the Cross-Valley Canal, a portion of the existing canal will be reconfigured to incorporate a new bifurcation structure splitting flows between the new Kern-Fan/Cross-Valley conveyance system and the existing Cross-Valley Canal. From the new bifurcation structure, the Kern-Fan/Cross-Valley conveyance system will parallel the existing Cross-Valley Canal to a new delivery point on the Cross-Valley Canal upstream of Pump Station No. 1. At the Cross-Valley Pump Station No. 1 a new pump station will be constructed to lift the Kern-Fan flow across Interstate-5 and continue north to the un-named farm road (Johnson Road) approximately one mile north of Stockdale Highway, continuing easterly along the un-named farm road to approximately ½ miles west of the Rosedale Intake Canal.

Technical Execution:

The following provides a technical description of first and second phases to identify the viability of the Joint-Works Project (Alternatives 5A and 5B).

Phase I - Concept Level Evaluation of Joint Use Turnouts for Alternatives 5A and 5B – The initial phase will be a conceptual evaluation of the Joint-Works Project from the California Aqueduct for Alternatives 5A and 5B and will include preliminary hydraulics, identify turnout requirements, constructability, and construction sequencing. The evaluation and findings will be presented to the GBJPA and KCWA in a workshop for initial review and feedback. Stantec will prepare a technical memorandum to document the conceptual evaluation and comments from the Kern County Water Agency and GBJPA.

Phase II - Feasibility Report of Conveyance Alternatives 5A and 5B – If the GBJPA and KCWA are receptive to the Joint-Works concept presented in Phase I, Stantec will develop a feasibility report of Alternatives 5A and 5B to include detailed hydraulics, optimized cross sections, cost estimates, environmental constraints, land ownership and rights-of-way requirements, and prepare a technical feasibility report. The feasibility report will be presented to the KCWA in a workshop for review and comment.

Upon completion of Phase I and/or Phase II, GBJPA may request evaluation and feasibility report of other alternative alignments. Stantec will provide a cost proposal if other alternatives evaluation is required by the GBJPA. If either Alternative 5A or 5B is feasible and approved by the GBJPA and the KCWA, Stantec will provide a cost proposal to develop the preliminary and final design of the selected alternative.

TASK 100 – PROJECT MANAGEMENT AND COORDINATION

Task 100.1 – Project Management

Project Management – Stantec will implement project management activities to verify adherence to the scope of services, schedule, and budget, and to promote effective communications between Stantec, the Groundwater Banking Joint Powers Authority, and other project stakeholders as required. Stantec will implement as part of project management an effective quality assurance and quality control program based on the established protocols of Stantec Consulting.

A. Project Status Report Preparation – Stantec will prepare weekly and monthly status reports. Each weekly status report will be submitted to the GBJPA staff and include a brief email summarizing the

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

activities completed the previous week, identify activities planned for the upcoming week and update decision logs and risk logs. Each monthly status report will be included with the monthly invoicing and provide additional detail summarizing work completed, review of current work status relative to budget and schedule. The project schedule will be updated monthly for inclusion in the monthly report and invoicing.

B. Monthly Invoicing – Stantec will prepare monthly invoicing. All invoicing will be forwarded to the GBJPA for your review and approval.

Deliverables for Project Status Reporting and Invoicing:

- Weekly project status reports via an email summarizing short-term project activities
- Monthly status report
- Monthly invoicing

C. Meetings and Workshops -

Meetings – Stantec will prepare meeting agendas, meeting minutes, action items, and maintain decision logs for each meeting to address technical issues and keep the project team informed of project progress. The meetings and workshops are as listed in the tasks below. A kickoff meeting will be held after receipt of notice to proceed as part of this task. The following identifies planned meetings and workshops included as part of Stantec’s efforts.

Meeting / Workshop	Description
Kick-Off Meeting	One two-hour meeting: Prior to the Kick-off Meeting, Stantec will present an overview of the approach and develop initial information requests of materials to be provided by the GBJPA. Stantec will present early work tasks, identification of workshops, design criteria, and the overall project schedule.
Bi-weekly Project Coordination Meetings (10 meetings)	Bi-Weekly project coordination meetings shall consist of ten 1-hour virtual meetings. As necessary, meetings can be in-person on a case-by-case basis. The focus of the meetings will be used to coordinate and develop the project with GBJPA staff members. Each meeting will review progress of the project, refine project criteria, prepare and review decision logs/risk logs, review project schedule. As elements of the project are developed, discussions on approach and project solutions will be incorporated as part of the coordination meetings.
Workshop No. 1 – Joint-Works Turnout Concept Level Evaluation Workshop	One two-hour meeting – Workshop No. 1 will present the concept level evaluation of Joint-Works Project for discussion and approval by GBJPA and KCWA. This evaluation will include preliminary hydraulics, cross sections, construction sequencing and configurations for the turnouts.
Workshop No. 2 – Joint-Works Turnout Feasibility Report Workshop	One two-hour meeting – Workshop No. 2 will advance the analysis of Joint-Works Project to develop the feasibility report, costs, detailed hydraulics, construction sequencing, environmental constraints, and land and ROW requirements for presentation to GBJPA and KCWA.

Assumptions: Estimated duration of the Conveyance Alternatives Feasibility Report is 7 months.

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

TASK 200 – FIELD ACTIVITIES

Task 200.1 – Surveying

Conduct initial preliminary alignment topographic field survey to gather profile information along the alignment alternatives 5A and 5B using RTK GPS equipment. The data from the survey will be developed in AutoCAD format to support the analysis of the alternative alignments.

Assumptions:

- a) GBJPA will provide access to all properties and coordinate with the property owners in advance of the planned field work
- b) Survey will be based on the survey control information provided by the GBJPA
- c) Surveying and mapping to support final engineering design will be conducted at a later date for the selected alignment.

Deliverables Field Activities:

- Preliminary Base Map 1"=40' providing spot elevations and elevation offsets for evaluating preliminary earthwork quantities and facilities alignments. All topographic information will be provided in an electronic format AutoCad files.

Task 300 – JOINT-WORKS TURNOUT WITH CROSS VALLEY CANAL CONCEPT LEVEL EVALUATION (Phase I)

The goal for this task is to develop and evaluate potential joint works structural changes that, if implemented, would accomplish the following:

- Establish in steady-state flow in Pool 1 of the Cross Valley Canal with sufficient flexibility to accommodate the daily water level changes in the California Aqueduct
 - Stabilize the Cross Valley Canal Pump Station No. 1 forebay flow conditions and therefore improve the current operating parameters which should enhance the operating conditions at the upstream (suction side) at Pump Station No. 1, improve flow conditions through the pump station and reduce power consumption
 - Provide joint-works Aqueduct turnout capacity for the Cross Valley Canal and the Kern Fan Groundwater Storage Project and therefore avoid the permitting and construction of a new turnout on the California Aqueduct
 - Develop an expanded conveyance system to meet the flow requirements for the Cross Valley Canal, and Alternative Alignment 5A and/or Alternative Alignment 5B
- a) Develop Boundary Conditions at the California Aqueduct and Joint-Works Project - A request will be made to DWR for hourly water levels at Check 28 for the past ten years. A study of these historical records will provide a representative range of operating levels (water surface elevations) for both normal and abnormal conditions in for Pool 28 of the California Aqueduct.

This information will be used for evaluation of the existing turnout capacities and related conveyance facilities and will provide a basis for determining operational limitations that will occur when the California Aqueduct is at a low water stage. The Stantec team will review the proposed water surface elevations with DWR to obtain concurrence. Initial estimation of the downstream boundary conditions for Pool 28 are as follows:

- Absolute maximum water level elevation = 299.50 feet

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

- Normal maximum water level elevation = 298.10 feet
- Normal minimum water level elevation = 296.10 feet
- Absolute minimum water level elevation = TBD feet

Boundary conditions will also be established for the minimum water surface elevation in the Pumping Plant 1 forebay.

- b) Review of Previous Work by Others - This subtask provides time for review of previous work related to the Cross Valley Canal including a review of the original design, TM's 1 through 17 prepared by Boyle Engineering Corporation during 2004 and further amended in 2005, and the construction documents for construction of the Cross Valley Canal Expansion Project.
- c) Concept for Joint-Works Project - This subtask will include development and evaluation of alternatives for modifications to the Cross Valley Canal to address current operational issues and provide joint use to GBJPA for a portion of length of the modified Cross Valley Canal and/or parallel canal. The structural change alternatives that will be evaluated include:
 - For Alternative 5A - A widening and lowering of the Cross Valley Canal or the use of a separate parallel canal to flatten the slope of the design water surface (DWS) from the California Aqueduct to Main Drain (about 8,000 feet length) and provide up to 500 cfs delivery capacity for the Kern Fan Groundwater Storage Project.
 - For Alternative 5B - A widening and lowering of the Cross Valley Canal or the use of a separate parallel canal to flatten the slope of the DWS from the California Aqueduct to Pumping Plant 1 (approximately 18,000 feet length) and provide up to 500 cfs delivery capacity for the Kern Fan Groundwater Storage Project.
- d) Concept for Combined Cross Valley Canal Turnouts or New Turnout - Evaluate options of a new turnout or combining the two existing Cross Valley Canal turnouts to eliminate the need for a new turnout. Tasks will include:
 - Evaluate construction of a new turnout
 - Evaluate combining the two existing Cross Valley Canal turnouts and methods for crossing at the existing Outlet Canal. The new modified Cross Valley Canal turnout may cross above or below the existing Outlet Canal.
 - Evaluate flow measurement options.
- e) Construction Sequencing - Construction sequencing will be developed at concept level for implementation of the project elements with steps to minimize impacts to ongoing Cross Valley Canal operations.
- f) Evaluate Alignment Alternatives – Develop a concept level evaluation of alignment alternatives 5A and 5B for the below criteria to provide a qualitative comparison of the alternatives.
 - Open Canal Hydraulics – Stantec will conduct preliminary level hydraulic analyses developing a spreadsheet normal-depth analysis for the canal options for each alternative alignment. Modeling results will be presented on a single page profile for discussion purposes.
 - Pump Station Requirements – Prepare concept level pump station requirements that are output from the hydraulics analysis. The development of the pump station requirements will identify potential locations, identify flow requirements and horsepower requirements.
 - Land Ownership and Review of Existing Land Uses (crops and water banks) – Identify land ownerships and existing uses to provide information for the GBJPA's consideration. Stantec will

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

prepare a listing of potential rights-of-way based on an initial project footprint and parcel information.

Meetings / Workshops:

- a) Concept Level Evaluation Workshop #1 with GBJPA and KCWA

Deliverables:

- a) Conceptual Evaluation Technical Memorandum Draft to GBJPA
- b) Conceptual Evaluation Technical Memorandum Draft to KCWA
- c) Conceptual Evaluation Technical Memorandum Final
- d) PowerPoint Presentation

Task 400 – FEASIBILITY REPORT OF CONVEYANCE ALTERNATIVES 5A and 5B (Phase II)

Perform technical evaluation of conveyance alternatives 5A and 5B based on feedback from KCWA and the GFJPA at the conceptual level workshop. Develop the conveyance alternatives and the Joint-Works turnouts with detailed hydraulics evaluation to further refine the pump station requirements, review land ownership and rights-of-way criteria, environmental constraints, and costs as described below. Prepare a feasibility report of the alternatives evaluation based on the draft table of contents provided as part of this scope. Recommend a preferred alternative for approval by the GBJPA.

- a) Hydraulics – Stantec will conduct feasibility level hydraulic analyses developing a spreadsheet normal-depth analysis for the canal options for each alternative alignment. Modeling results will be presented on a single page profile for discussion purposes. The hydraulic models will be used to establish pumping and right of way requirement for the proposed alignments.
- b) Pump Station Requirements – Prepare feasibility level pump station requirements that are output from the hydraulics analysis. Requirements to consist of pump station location, capacity, and general equipment arrangement (i.e., number/size of each pump).
- c) Land Ownership and Review of Existing Land Uses (crops and water banks) – Identify land ownerships and existing uses to provide information for the rights-of-way requirement evaluation.
- d) Rights-of-Way requirements – Prepare an initial assessment of rights-of-way acreages required and the approximate cost to obtain ROW using recent realty values based on current land usage.
- e) Environmental Constraints – Prepare a desktop analysis to identify significant environmental constraints and regulatory/permitting requirements for use in evaluating the different alternatives. This task will be initiated by the preparation of environmental constraints study area map the alternatives. The team will review readily available information (i.e. the FEIR/S) to support feasibility-level evaluations. Stantec will identify permitting and/or agency consultation requirements associated with each alternative. The primary objective of this effort is to identify potential “fatal flaws” with the alternatives, possible differences in the type of permit or authorization that would be required for the alternatives and identify any substantive differences in potential impacts and required mitigation. Documentation will consist of an alternative permitting and environmental resource matrix.
- f) Theory of Operations - The hydraulic analysis and theory of operations will be developed as part of this subtask. Conceptual operational procedures will be suggested for operations joint use of the modified Cross Valley Canal.
- g) Construction Sequencing - Construction sequencing will be further refined for implementation of the project elements with steps to minimize impacts to ongoing Cross Valley Canal operations.

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

- h) Capital Cost Analysis – Prepare a feasibility level engineer’s opinion of probable construction costs for Alternatives 5A and 5B.
 - For the canal alternatives, the field survey conducted under Task 200.1 will be used to create a preliminary digital terrain model and the canal profile and typical section used to generate initial earthwork quantities to support the capital cost estimate.
- i) Ranking and Evaluation - Based upon the evaluation criteria and scoring methodology established, provide a ranking of the alternatives 5A and 5B for the GBJPA’s decision-making.

Meetings / Workshops:

- a) Conveyance Alignment Alternatives Analysis Workshop with GBJPA and KCWA

Deliverables:

- a) Feasibility Report of Alignment Alternatives Analysis Draft
- b) Feasibility Report of Alternatives Analysis Final
- c) PowerPoint Presentation

Assumptions and Exclusions:

- 1) GBJPA will lead discussions with DWR.
- 2) Kern County Water Agency – Stantec team will provide engineering evaluation and support for the combined Cross Valley Canal turnout.
- 3) Property owner liaison will be provided by GBJPA.
- 4) Excluded from scope:
 - a. Geotechnical investigation (deferred until preferred alternative is identified)
 - b. Legal descriptions and plats deferred until a preferred alternative is selected
 - c. No effort requested by GBJPA for Design Package 5 (SCADA and Controls) at this time
 - d. Aerial Survey and Field Survey of Selected Alignment (deferred until preferred alternative is identified)
 - e. Environmental Services for CEQA

Reference: Kern Fan Groundwater Storage Project - Conveyance Alternatives Feasibility Report Scope of Services

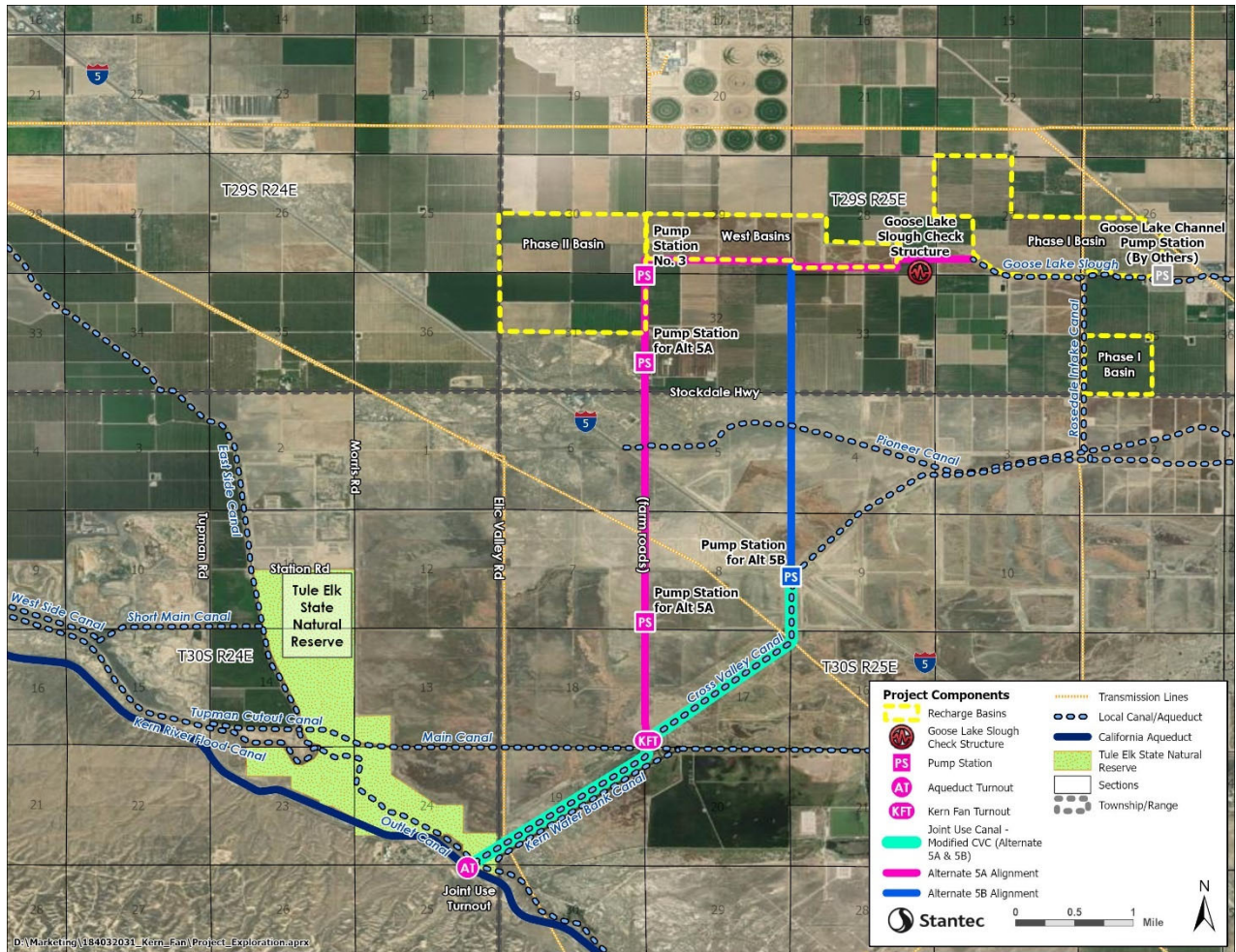


Figure 1 - Conveyance Alignment Alternatives 5A and 5B

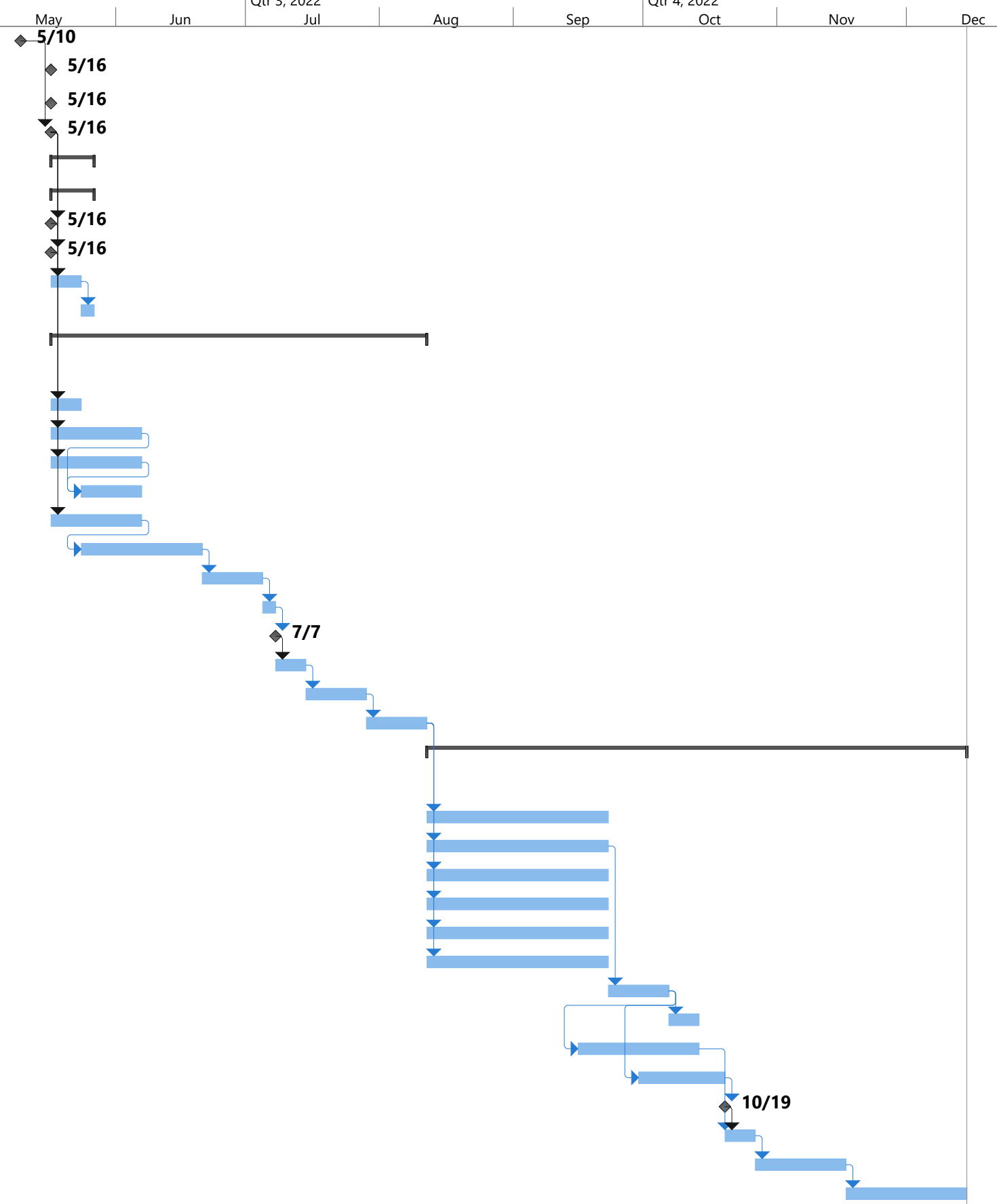
Conveyance Alternatives 5A and 5B Feasibility Report

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KERN FAN GROUNDWATER STORAGE PROJECT - PRELIMINARY SCHEDULE FOR CONVEYANCE ALTERNATIVES 5A & 5B FEASIBILITY REPORT

ID	Task Name	Duration	Start	Finish	Timeline												
					May	Jun	Qtr 3, 2022 Jul	Aug	Sep	Qtr 4, 2022 Oct	Nov	Dec					
1	Notice to Proceed	0 days	Tue 5/10/22	Tue 5/10/22	◆ 5/10												
2	Task 100 - Project Management and Coordination	0 days	Mon 5/16/22	Mon 5/16/22	◆ 5/16												
3	100.1 - Project Management	0 days	Mon 5/16/22	Mon 5/16/22	◆ 5/16												
4	Kickoff Meeting	0 days	Mon 5/16/22	Mon 5/16/22	◆ 5/16												
5	Task 200 - Field Activities	8 days	Mon 5/16/22	Thu 5/26/22													
6	200.1 - Surveying	8 days	Mon 5/16/22	Thu 5/26/22													
7	GBJPA provide survey control	0 days	Mon 5/16/22	Mon 5/16/22	◆ 5/16												
8	GBJPA provide access to enter parcels to conduct surveying	0 days	Mon 5/16/22	Mon 5/16/22	◆ 5/16												
9	Conduct RTK GPS field surveying for Alternatives 5A and 5B	5 days	Tue 5/17/22	Mon 5/23/22													
10	Office work to process field survey information	3 days	Tue 5/24/22	Thu 5/26/22													
11	Task 300 - Concept Level Evaluation of Alternatives 5A and 5B (Phase I)	63 days	Tue 5/17/22	Thu 8/11/22													
12	Review of Previous Work by Others	5 days	Tue 5/17/22	Mon 5/23/22													
13	Concept for Joint Use Canal	15 days	Tue 5/17/22	Mon 6/6/22													
14	Concept for Combined Turnouts/New Turnouts	15 days	Tue 5/17/22	Mon 6/6/22													
15	Construction Sequencing	10 days	Tue 5/24/22	Mon 6/6/22													
16	Conveyance Alternatives 5A and 5B Concept Evaluation	15 days	Tue 5/17/22	Mon 6/6/22													
17	Draft TM Submittal to GBJPA	20 days	Tue 5/24/22	Mon 6/20/22													
18	GBJPA Review Draft TM	10 days	Tue 6/21/22	Mon 7/4/22													
19	Concept Level Prepare Presentation	3 days	Tue 7/5/22	Thu 7/7/22													
20	Concept Level Workshop	0 days	Thu 7/7/22	Thu 7/7/22													
21	Draft TM Submittal to GBJPA and KCWA	5 days	Fri 7/8/22	Thu 7/14/22													
22	GBJPA and KCWA review draft submittal	10 days	Fri 7/15/22	Thu 7/28/22													
23	Final TM Submittal	10 days	Fri 7/29/22	Thu 8/11/22													
24	Task 400 - Feasibility Report of Conveyance Alternatives 5A and 5B (Phase II)	89 days	Fri 8/12/22	Wed 12/14/22													
25	Hydraulics	30 days	Fri 8/12/22	Thu 9/22/22													
26	Pump station requirements	30 days	Fri 8/12/22	Thu 9/22/22													
27	Land ownership and review of existing land uses	30 days	Fri 8/12/22	Thu 9/22/22													
28	ROW requirements	30 days	Fri 8/12/22	Thu 9/22/22													
29	Environmental constraints	30 days	Fri 8/12/22	Thu 9/22/22													
30	Theory of Operations and Construction Sequencing	30 days	Fri 8/12/22	Thu 9/22/22													
31	Capital cost analysis	10 days	Fri 9/23/22	Thu 10/6/22													
32	Conduct evaluation and ranking	5 days	Fri 10/7/22	Thu 10/13/22													
33	Prepare Draft Feasibility Report	20 days	Fri 9/16/22	Thu 10/13/22													
34	Prepare Feasibility Presentation	14 days	Fri 9/30/22	Wed 10/19/22													
35	Conveyance Alternatives Feasibility Workshop	0 days	Wed 10/19/22	Wed 10/19/22													
36	Submit Draft Feasibility Report	5 days	Thu 10/20/22	Wed 10/26/22													
37	GBJPA review draft Report	15 days	Thu 10/27/22	Wed 11/16/22													
38	Prepare Final Feasibility Report	20 days	Thu 11/17/22	Wed 12/14/22													



WaterSMART Grant Application

DISCUSSION

In March of 2022 the USBR released a WaterSMART Drought Response Program to fund up to 50% of Drought Resiliency Projects for fiscal year 2023. Applications are June 5, 2022. The GBJPA has acquired two properties totally approximately 350 acres that it wishes to develop into groundwater recharge and recovery areas over the next 1-3 years. This grant could provide up to \$5,000,000 towards the total estimated \$20-30M in construction costs.

RECOMMENDATION

It is recommended that a resolution be adopted supporting the application of the project and direct the General Manager authority to execute agreements as required with Reclamation if awarded.

LIST OF EXHIBITS

Cover Page and Synopsis of Grant
Resolution 2022-03



— BUREAU OF —
RECLAMATION

Notice of Funding Opportunity No. R23AS00005

WaterSMART

Drought Response Program: Drought Resiliency Projects for Fiscal Year 2023



Synopsis

Federal Agency Name:	Department of the Interior, Bureau of Reclamation, Water Resources and Planning Office
Funding Opportunity Title:	WaterSMART Drought Response Program: Drought Resiliency Projects for Fiscal Year (FY) 2023
Announcement Type:	Notice of Funding Opportunity (NOFO)
Funding Opportunity Number:	R23AS00005
Catalog of Federal Domestic Assistance (CFDA) Number:	15.514
Dates: (See NOFO Sec. D.4)	Application due date: Wednesday, June 15, 2022 4:00 p.m. Mountain Daylight Time
Eligible Applicants: (See NOFO Sec. C.1)	<p>Category A: States, Indian Tribes, irrigation districts, and water districts; state, regional, or local authorities whose members include one or more organizations with water or power delivery authority; and other organizations with water or power delivery authority. Category A applicants must be located in the Western United States or United States Territories, including Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, American Samoa, Guam, the Northern Mariana Islands, the Virgin Islands, and Puerto Rico.</p> <p>Category B: Nonprofit conservation organizations that are acting in partnership and with the agreement of an entity described in Category A. Category B applicants must be in the United States or one of the Territories identified above.</p>
Recipient Cost Share: (See NOFO Sec. C.2)	50 percent or more of total project costs
Federal Funding Amount (See NOFO Sec. B.2)	<p>Funding Group I: Up to \$500,000 per agreement for a project that can be completed within two years.</p> <p>Funding Group II: Up to \$2,000,000 per agreement for a project that can be completed within three years. Projects in this group may be funded on an annual basis. Funding for the second and third years of the project is contingent upon future appropriations.</p> <p>Funding Group III: Up to \$5,000,000 per agreement for a project that can be completed within three years. Projects in this group may be funded on an annual basis. Funding for the second and third years of the project is contingent upon future appropriations.</p>
Estimated Number of Agreements to be Awarded: (See NOFO Sec. B)	Approximately 15 to 21 projects contingent upon available Federal appropriations.
Intergovernmental Review: (See NOFO Sec. D.5)	This NOFO is subject to Executive Order 12372, "Intergovernmental Review of Federal Programs." A list of states that have elected to participate in the intergovernmental review process is at Intergovernmental Review (SPOC List) The White House (archives.gov) .

RESOLUTION NO. 2022-03

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
GROUNDWATER BANKING JOINT POWERS AUTHORITY
WATER SMART GRANT APPLICATION**

WHEREAS, the Groundwater Banking Joint Powers Authority has prepared an application to apply for federal funding from the United States Department of the Interior, Bureau of Reclamation (Reclamation) to assist in the funding of the Drought Resiliency Projects; and

WHEREAS, the funding opportunity provided by Reclamation through their Grant Program entitled “WaterSMART Drought Response Program: Drought Resiliency Projects for Fiscal Year 2023” Funding Opportunity Announcement No. is R23AS00005; and

WHEREAS, the West Enos and Stockdale North Recharge and Recovery Project involves the drilling and equipping of 4 wells, construction of approximately 300 acres of recharge ponds, and construction of recovery well conveyance, pipelines, and turnout facilities to improve overall drought resiliency by increasing groundwater recharge during wet years and recovery in drought years.

THEREFORE, BE IT RESOLVED, the Groundwater Banking Joint Powers Authority Board of Directors have reviewed the application and support its submittal for Reclamation assisted funding. The Board of Directors approve Dan Bartel, General Manager, as the official with legal authority to enter into a cooperative agreement with Reclamation and confirm that the Groundwater Banking Joint Powers Authority is capable of providing the amount of funding specified in the application. The Groundwater Banking Joint Powers Authority will work with Reclamation to meet established deadlines for entering into a cooperative agreement.

PASSED APPROVED AND ADOPTED on this _____ day of _____, 20__ by the following roll-call vote:

AYES:
NOES:
ABSENT:
ABSTAINED:

**GROUNDWATER BANKING JOINT
POWERS AUTHORITY**

President/Board of Directors

ATTEST:

Secretary/Board of Directors