

October 10, 2024

Farai Kaseke, PhD, PMP, CSM
Fox Canyon Groundwater Management Agency
800 South Victoria Avenue
Ventura, Ca 93009

Subject: Scope of Work to Prepare the Las Posas Valley Basin 2025 Basin Optimization Yield Study

Dear Dr. Kaseke:

Dudek is pleased to provide this scope of work to support the Fox Canyon Groundwater Management Agency (FCGMA) in the development of the 2025 Basin Optimization Yield (BOY) Study for the Las Posas Valley Basin (LPVB). Dudek understands that the goal of the BOY Study is to quantify the BOY¹ and Rampdown Rate², each of which will be defined in a manner consistent with the Judgment, sustainability goal for the LPVB, and the Sustainable Groundwater Management Act (SGMA). Additionally, Dudek understands that the development of this BOY Study will occur concurrently with critical basin management activities, including the development of the Periodic Groundwater Sustainability Plan (GSP) Evaluation, development of the Basin Optimization Plan, and development of Calleguas Aquifer Storage and Recovery Operations Plan. Because of this, we understand that the FCGMA will need to develop the BOY Study in a manner that efficiently and effectively incorporates new groundwater management information as it is developed by the FCGMA, with input from the Policy Advisory Committee (PAC) and Technical Advisory Committee (TAC). As the team who has actively partnered with the FCGMA in the development and implementation of the GSP for the LPVB, we are uniquely familiar with the projects identified in the Judgment and are well suited to support the FCGMA in their development of the BOY Study.

Scope of Work

As the Watermaster for the LPVB, FCGMA is responsible for calculating the BOY and Rampdown Rate. To support FCGMA in this, Dudek proposes that the numerical groundwater flow models for the LPVB be used to simulate the impact of future groundwater extractions and projects on groundwater levels in the LPVB. Dudek will use the numerical groundwater flow model for the East Las Posas Management Area (ELPMA)³ and Dudek recommends

¹ *Las Posas Valley Water Rights Coalition v. Fox Canyon Groundwater Management Agency*. Case No. VENC100509700 (Judgment) defines the Basin Optimization Yield as, “the estimated yield that is projected to be available to achieve sustainable groundwater management by 2040.[...] The Basin Optimization Yield will take into account: (i) water available from native groundwater inflows; (ii) Return Flows; (iii) reasonably anticipated enhanced yield (i.e., managed replenishment excluding water stored and dedicated to the Calleguas ASR Project) projected to be available by Water Year 2040 consistent with the projected Basin Optimization Plan; and (iv) opportunities for optimization of the Sustainable Yield achieved by relocating Extraction and transmission of water to avoid Undesirable Results. The Basin Optimization Yield will also, through Adaptive Management, take into account circumstances including: (a) improved understanding of Basin conditions and hydrogeologic parameters as a result of new data over time; (b) the current status of Basin Optimization Projects; and (c) changing hydrological conditions”.

² The Judgment defines the Rampdown Rate as, “The rate of Rampdown beginning in Water Year 2025 and each Water Year thereafter, which will result from the Basin Optimization Study”, and defines that the Rampdown Rate shall be calculated, “by dividing the amount of any deficit between the then-effective Operating Yield (e.g. 40,000 AFY) and the Basin Optimization Yield by fifteen (i.e. fifteen annual increments)”.

³ Calleguas Municipal Water District, 2018, Groundwater Flow Model of the East and South Las Posas Sub-Basins – Preliminary Draft Report. Prepared by Intera Geoscience and Engineering Solutions. January 2018.

Item 24A - Dudek Scope of Work for the Basin Optimization Yield Study

TO: FARAI KASEKE, PHD, PMP, CSM
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that the West Las Posas Management Area (WLPMA) analyses be performed in coordination with the United Water Conservation District (UWCD) using the Updated Coastal Plain numerical groundwater flow model currently in use for development of the 2025 GSP periodic evaluations for the Oxnard Subbasin, Pleasant Valley Basin, and LPVB. The scope of work below describes Dudek’s approach to quantifying the BOY and Rampdown Rate.

Task 1 – Model Scenario Development

The Judgment requires development of a Basin Optimization Plan that defines the suite of projects that are likely to be “practical, reasonable, and cost-effective to implement prior to 2040 to maintain the Operating Yield at 40,000 AFY or as close thereto as achievable” (Section 5.3.2.2 of the Judgment). The Judgment requires that FCGMA prepare an initial draft of the Basin Optimization Plan that will include project details (e.g. schedules, costs, feasibility, etc.), a project prioritization schedule, and a schedule for the Basin Optimization Projects to be evaluated, scoped, designed, financed, and developed (Section 5.3.2.4 and 5.3.2.5 of the Judgment).

The Basin Optimization Plan has not been adopted by the Watermaster Board. To facilitate efficient development of the BOY Study, Dudek will use the project feasibility and implementation timelines in the draft Basin Optimization Plan to prepare a proposed suite of projects for inclusion in the BOY Study. As needed and appropriate, Dudek will coordinate with FCGMA and individual project proponents to define the project implementation details required for modeling, such as proposed in lieu and recycled water delivery recipients, conditions amenable to stormwater diversion along the Arroyo Las Posas, and timelines/conditions favorable for using Calleguas facilities for LPVB replenishment.

Assumptions

- The model scenario will *only* include projects identified in the *draft* Basin Optimization Plan that are “practical, reasonable, and cost-effective to implement prior to 2040”.
- The modeling assumptions will not undergo PAC review.
- Prior to performing any modeling simulations, Dudek will present the proposed model scenarios and BOY Study project suite at one TAC meeting.
- TAC recommendations on alterations to the model scenarios will be requested in a written recommendation report to be submitted to the Watermaster within 14 days of the Dudek presentation at the TAC meeting.
- After completing the modeling for Baseline and Projects scenarios, Dudek will discuss the model results, proposed methods for developing alternative pumping scenarios, and proposed methods for estimating the Basin Optimization Yield using the numerical model results at one TAC meeting.
- TAC recommendations on the model results, proposed methods for developing alternative pumping scenarios, and proposed methods for estimating the Basin Optimization Yield will be requested in a written recommendation report to be submitted to the Watermaster within 14 days of the Dudek presentation at the TAC meeting.
- The costs associated with TAC consultation are accounted for in Task 6, Committee Meetings.
- If individual project proponents do not respond to a request for additional information on project implementation details Dudek will use professional judgement to develop the project scenario.

Task 1\$7,555.00

Task 2 – ELPMA Numerical Modeling

Task 2.1 – Baseline Scenario

Following development of the BOY Study project suite, Dudek will develop a baseline scenario that simulates groundwater conditions in the ELPMA through water year 2069. To remain consistent with the GSP, the baseline scenario will use the hydrologic period from 1930-1979, modified by DWR’s 2070 central tendency climate change factors. Groundwater withdrawals in the baseline model scenario will be set equal to the allocations in the Groundwater Allocation Schedule prepared in accordance with the Water Rights Holders in the ELPMA. The baseline model scenario will not include projects identified in the Basin Optimization Plan.

Using the simulation results from the baseline scenario, Dudek will develop groundwater budgets, calculate the change in groundwater in storage, and compare groundwater levels at key wells to the minimum thresholds and measurable objectives in the ELPMA to characterize future groundwater conditions in the absence of implementing new projects.

Assumptions

- The Baseline scenario will be modeled using the existing version of the numerical groundwater flow model of the ELPMA (CMWD 2018). This model is currently being used for development of the 2025 LPVB GSP Update.
 - Baseline modeling will *not* include model validation, re-calibration, or uncertainty quantification.
- Well by well extraction rates will be defined using the allocations in the Groundwater Allocation Schedule prepared in accordance with the Water Rights Holders in the ELPMA.
- Dudek will present the completed modeling results for both the Baseline and Projects scenarios at one TAC meeting.
- TAC recommendations on the completed model results for the Baseline and Projects scenarios will be requested in a written recommendation report to be submitted to the Watermaster within 14 days of the Dudek presentation at the TAC meeting.
- The costs associated with TAC consultation are accounted for in Task 6, Committee Meetings.

Task 2.1\$20,020.00

Task 2.2 – Projects Scenario

Following completion of the Baseline model scenario, Dudek will develop a Projects scenario that integrates Basin Optimization Projects that are “practical, reasonable, and cost-effective to implement prior to 2040” and identified in the *draft* Basin Optimization Plan. Dudek will simulate operation of the Basin Optimization Projects according to the schedules and scales defined in the *draft* Basin Optimization Plan.

To evaluate the benefits of implementing basin optimization projects, the Project model scenario will use the same hydrology and groundwater pumping as the Baseline model scenario. Using the simulation results from the Projects scenario, Dudek will develop groundwater budgets, calculate the change in groundwater in storage, and compare groundwater levels at key wells to the minimum thresholds and measurable objectives in the ELPMA to characterize

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future groundwater conditions. Dudek will compare these model results to the Baseline scenario results to provide a quantitative estimate of Basin Optimization Project benefits.

Assumptions

- The Project Model Scenario will be modeled using the existing version of the numerical groundwater flow model of the ELPMA (CMWD 2018). This model is currently being used for development of the 2025 LPVB GSP Periodic Evaluation.
 - Baseline modeling will *not* include model validation, re-calibration, or uncertainty quantification.
- Well by well extraction rates will be defined using the allocations in the Groundwater Allocation Schedule prepared in accordance with the Water Rights Holders in the ELPMA.
- Dudek will present the completed modeling results for both the Baseline and Projects scenarios at one TAC meeting.
- TAC recommendations on the completed model results for the Baseline and Projects scenarios will be requested in a written recommendation report to be submitted to the Watermaster within 14 days of the Dudek presentation at the TAC meeting.
- The costs associated with TAC consultation are accounted for in Task 6, Committee Meetings.

Task 2.2.....\$21,400.00

Task 2.3 – Alternative Pumping Scenarios and Rampdown Rate

If the Basin Optimization Projects do not avoid undesirable results in the ELPMA, Dudek will perform up to three (3) additional scenarios to define a groundwater production rate that avoids undesirable results. For these scenarios, Dudek will uniformly reduce groundwater extractions across the ELPMA until undesirable results are avoided. These model runs will incorporate the same Basin Optimization Projects as the Projects scenario. Dudek has not included scope and budget to simulate localized restrictions on extractions within the ELPMA, as defined in section 4.10.3 of the Judgment.

If the BOY is lower than 40,000 AFY, Dudek will calculate the Rampdown Rate in accordance with Section 4.10.1.4 of the Judgment.

Assumptions

- The alternative pumping scenarios will be modeled using the existing version of the numerical groundwater flow model of the ELPMA (CMWD 2018). This model is currently being used for development of the 2025 LPVB GSP Periodic Evaluation.
 - The alternative pumping scenarios modeling will *not* include model validation, re-calibration, or uncertainty quantification.
- Well by well extraction rates will be defined using the allocation schedule set forth in Exhibit C and the Protocols and Formulas to Determine Allocations in Exhibit D of the Judgment.
- Alternative pumping scenarios will not include localized restrictions on extractions within the ELPMA.
- Results from the alternative pumping scenarios will not undergo PAC and/or TAC review until committee review of the *draft* BOY Study.

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Task 2.3	\$13,590.00
TASK 2 TOTAL	\$55,010.00

Task 3 – WLPMA Modeling Coordination

Dudek understands that the numerical modeling for the WLPMA will be performed by UWCD. To support coordination between the WLPMA and ELPMA modeling efforts, Dudek has included scope and budget to attend up to five (5) coordination calls, develop up to five (5) pumping scenarios, and analyze up to five (5) sets of numerical model outputs provided by UWCD for incorporation into the BOY Study.

Assumptions

- All numerical modeling for the WLPMA will be performed by UWCD using the same version of the Ventura Regional Groundwater Flow Model that is being used to support preparation of the 2025 GSP Updates for the Oxnard Subbasin, Pleasant Valley Basin, and LPVB.
 - The WLPMA modeling will *not* include model validation, re-calibration, or uncertainty quantification.
- Well by well extraction rates will be defined using the allocation schedule set forth in Exhibit C and the Protocols and Formulas to Determine Allocations in Exhibit D of the Judgment in accordance with the Water Rights Holders in the WLPMA.
- Alternative pumping scenarios will not include localized restrictions on extractions within the WLPMA.

Task 3	\$14,420.00
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Task 4 – Draft and Final Basin Optimization Yield Study

Dudek will summarize results from the numerical modeling in the draft BOY Study. Dudek will prepare one (1) draft BOY Study and, pursuant to the Judgment, provide the draft to the PAC and TAC for review and comment. Dudek will, as appropriate and in consultation with FCGMA, revise the draft BOY Study based on feedback from the PAC and TAC.

The revised draft BOY Study will be provided to the Watermaster Board for review and discussion. Dudek will prepare the final BOY Study based on feedback provided by the Watermaster Board and will submit a final BOY Study for approval by Watermaster Board meeting.

Assumptions

- Dudek will provide electronic copies of the draft BOY Study to the PAC and TAC.
- The draft BOY Study will undergo one (1) round of internal review by FCGMA staff, one (1) round of external review by the LPVB PAC and TAC, and one (1) round of external review by Watermaster Board.
- The PAC will provide one (1) redline edit version of the draft BOY study with all PAC member comments collected for Dudek to review.
- The TAC will provide one (1) redline edit version of the draft BOY study with all TAC member comments collected for Dudek to review.

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- Dudek will, as appropriate and in consultation with FCGMA staff, revise the draft BOY Study following each round of review and provide the Watermaster with one (1) electronic copy of the final BOY Study.

Task 4\$43,320.00

Task 5 – Watermaster Recommendation Response Reports

The Judgment requires that the draft BOY Study scope of work and draft BOY Study be provided to the PAC and TAC for formal review and comment. The PAC and TAC may provide the Watermaster with recommendation reports for both the BOY Study scope of work and BOY Study that shall be presented to the Watermaster Board. Prior to presenting the recommendations to the Board, Watermaster staff may prepare formal response reports that document responses to the PAC and TAC recommendations. Dudek has included time and budget to support the Watermaster staff in the development of response reports for both the draft scope of work and BOY Study. The time and budget provided is based on Dudek’s professional judgement. If PAC and TAC comments vary greatly from our estimate, we will discuss options for addressing these comments with FCGMA staff. If Dudek and staff agree that the time budgeted below is insufficient to address the comments, Dudek will prepare a revised budget for Watermaster approval detailing the additional work required to adequately respond to the comments.

Assumptions

- Dudek will prepare one (1) draft response report for the BOY study scope of work recommendation report and one (1) draft response report for the BOY Study recommendation report. Each draft response report will be provided to FCGMA for one (1) round of internal review.
- Dudek will, as appropriate and in consultation with FCGMA staff, revise the draft response reports and provide the Watermaster with one (1) electronic copy for consideration during review of the BOY Study scope of work and BOY Study report.
- The budget for this task is based on Dudek’s professional judgement.

Task 5\$34,950.00

Task 6 – Committee Meetings

The Judgment requires that the BOY Study be developed in consultation with the PAC and TAC and approved by the Watermaster Board. To support these coordination efforts, Dudek has included time to prepare for and attend both in-person and virtual meetings to discuss the development of the BOY Study with the TAC⁴ and Watermaster Board. Under this task Dudek will prepare for and attend up to seven (7) meetings according to the following schedule:

Table 1. Anticipated Meetings

Meeting No.	Meeting Topic	Committee	Type
1	Review of Baseline and Projects modeling assumptions	Technical Advisory Committee	Virtual

⁴ Dudek’s committee engagement will be focused on the technical development of the Basin Optimization Study and input from the PAC will be provided by the Watermaster and in recommendation reports.

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Table 1. Anticipated Meetings

Meeting No.	Meeting Topic	Committee	Type
2	Review of Modeling Approach and Discussion of Recommendation Reports	Watermaster Board	In Person
3	Review of Baseline and Projects modeling results and assumptions for alternative pumping scenarios	Technical Advisory Committee	Virtual
4	Draft Study	Watermaster Board	In Person
5	Recommendations on the Draft Study	Technical Advisory Committee	Virtual
6	Recommendations on the Draft Study	Watermaster Board	In Person
7	Adoption of the BOY Study	Watermaster Board	In Person

Task 6\$33,715.00

Assumptions

- Up to two (2) Dudek staff members will attend up to three (3) virtual meetings with the TAC. Dudek has not included travel costs in our budget assumptions for these meetings. If the TAC meetings require in-person attendance the budget will need to be revised or the total number of meetings Dudek attends will need to be reduced. If the TAC requests additional staff members attend, the budget will need to be revised or the total number of meetings Dudek attends will need to be reduced.
- Up to two (2) Dudek staff members will attend up to four (4) in-person meetings with the Watermaster Board.

Task 7 – Project Management

Dudek anticipates that the BOY Study will be developed over a 10-month time frame (Table 2). To facilitate efficient development of the BOY Study, Dudek has included scope and budget for biweekly (every other week) coordination calls with FCGMA staff, and general project management activities.

Task 7\$23,530.00

TOTAL COST ESTIMATE \$212,500.00

Schedule

Dudek anticipates that the BOY Study will be completed in accordance with the timeline specified in Table 2.

Assumptions

- This schedule assumes that the modeling for the Basin Optimization Yield study will begin after the draft Basin Optimization Plan is complete. Dudek anticipates that the draft Basin Optimization Plan will be completed by December 9, 2024, which would facilitate preparation of the draft Basin Optimization Yield study by June 2025. If the draft Basin Optimization Plan is not prepared

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in this timeframe, Dudek will coordinate with FCGMA to prepare a revised schedule that will be disseminated to the PAC and TAC for review and feedback.

- Preparation of the complete draft Basin Optimization Plan assumes timely consultation and responses from project proponents.
- This schedule additionally assumes that the numerical modeling performed by UWCD can be completed in coordination with FCGMA and Dudek over a five (5) month time frame. Dudek will work with FCGMA and UWCD to facilitate this. Dudek does not assume any responsibility for delays to UWCD modeling deliverables resulting from changes in UWCD staffing needs and schedules.
- In the event that the numerical modeling cannot be performed within this time frame, Dudek will coordinate with FCGMA to prepare a revised schedule that will be disseminated to the PAC and TAC for review and feedback.

Table 2. Schedule

Description	Tasks Covered	Anticipated Duration (weeks)
Development of the draft BOY Study	1, 2, 3, 4	25
LPVB Committee review and Recommendation Report development	-	9
Response report development review by Watermaster Board	4, 5	2
Watermaster Board review of Draft BOY study, committee report(s), and response report(s)		2
Final BOY Study development following Watermaster Board review	4	4
Total Anticipated Project Duration		42 weeks (approx. 10 months)

Cost Estimate

Table 3 includes a summary of Dudek’s estimated cost to complete each task of this scope of work. A detailed cost estimate, which includes a breakdown of estimated hours by staff and billing rate is included as Attachment A. Dudek’s 2024 Schedule of Charges is included as Attachment B.

Assumptions

- This cost estimate reflects all assumptions outlined in Tasks 1 through 7.

Table 3. Cost Summary

Task	Task Title	Cost Estimate
1	Model Scenario Development	\$7,555.00
2	ELPMA Numerical Modeling	\$55,010.00
2.1	Baseline Model Scenario	\$20,020.00
2.2	Projects Scenario	\$21,400.00
2.3	Alternative Pumping Scenarios and Rampdown Rate	\$13,590.00
3	WLPMA Modeling Coordination	\$14,420.00

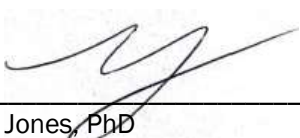
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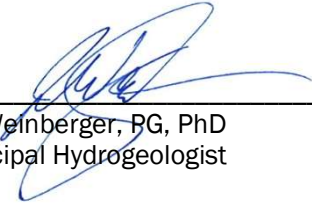
Table 3. Cost Summary

Task	Task Title	Cost Estimate
4	Draft and Final Basin Optimization Yield Study Report	\$43,320.00
5	Watermaster Response Reports	\$34,950.00
6	Committee Meetings	\$33,715.00
7	Project Management and Coordination	\$23,530.00
Total Cost		\$212,500.00

Sincerely,



Trevor Jones, PhD
Senior Hydrogeologist



Jill Weinberger, PG, PhD
Principal Hydrogeologist

Attachment A

Detailed Cost Estimate

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LPVB Basin Optimization Yield (BOY) Study Detailed Cost Estimate

Dudek Labor Hours and Rates											
		Project Team Role:	Principal Hydrogeologist/ Engineer III	Sr. Hydrogeologist V/Engineer V	Sr. Hydrogeologist III/Engineer II	Project Hydrogeologist III/Engineer III	Project Hydrogeologist III/Engineer II	TOTAL DUDEK HOURS	DUDEK LABOR COSTS	OTHER DIRECT COSTS	TOTAL FEE
		Billable Rate:	\$320.00	\$275.00	\$245.00	\$205.00	\$195.00				
Task 1	Define Project Suite and Model Scenarios										
1.1	Review Basin Optimization Plan; Define Basin Optimization Suite and Implementation Timeline; Coordinate with Agencies		9	17				26	\$7,555.00		\$7,555.00
Subtotal Task 1			9	17	0	0	0	26	\$7,555.00		\$7,555.00
Task 2	ELPMA Numerical Modeling										
2.1	Baseline Model Scenario		2	8	4	60	20	94	\$20,020.00		\$20,020.00
2.2	Projects Model Scenario		3	16	32	40		91	\$21,400.00		\$21,400.00
2.3	Alternative Pumping Scenarios and Rampdown Rate		3	12	18	24		57	\$13,590.00		\$13,590.00
Subtotal Task 2			8	36	54	124	20	242	\$55,010.00		\$55,010.00
Task 3	WLPMA Modeling Coordination										
3.1	Coordination, Meetings, and Technical Analyses		6	12	25	15		58	\$14,420.00		\$14,420.00
Subtotal Task 3			6	12	25	15	0	58	\$14,420.00		\$14,420.00
Task 4	Draft and Final Basin Optimization Yield Study										
4.1	Draft Basin Optimization Yield Study (Delivered to PAC and TAC)		12	40	12	12	32	108	\$26,480.00		\$26,480.00
4.3	Draft Basin Optimization Yield Study (Revised based on PAC and TAC feedback - Delivered to Watermaster Board)		6	8	8		16	38	\$9,200.00		\$9,200.00
4.4	Final Basin Optimization Yield Study		6	8	8		8	30	\$7,640.00		\$7,640.00
Subtotal Task 4			24	56	28	12	56	176	\$43,320.00		\$43,320.00
Task 5	Watermaster Response Report(s)										
5.1	Draft response report to PAC/TAC SOW Recommendation Report		6	10				16	\$4,670.00		\$4,670.00
5.2	Final response report to PAC/TAC SOW Recommendation Report		2	4				6	\$1,740.00		\$1,740.00
5.3	Draft response report to PAC/TAC Basin Optimization Study Recommendation Report		12	32	8	8	24	84	\$20,920.00		\$20,920.00
5.4	Final response report to PAC/TAC Basin Optimization Study Recommendation Report		4	8	4	4	12	32	\$7,620.00		\$7,620.00
Subtotal Task 5			24	54	12	12	36	138	\$34,950.00		\$34,950.00
Task 6	Committee Meetings										
6.1	TAC Meetings ^a		15	15				30	\$8,925.00		\$8,925.00
6.2	Watermaster Board Meetings ^b		40	40				80	\$23,800.00	\$ 990.00	\$24,790.00
Subtotal Task 6			55	55	0	0	0	110	\$32,725.00	\$990.00	\$33,715.00
Task 7	Project Management and Coordination										
7.1	Team Calls		30	30				60	\$17,850.00		\$17,850.00
7.2	Project Management		4	16				20	\$5,680.00		\$5,680.00
Subtotal Task 7			34	46	0	0	0	80	\$23,530.00		\$23,530.00
	Total Hours		160	276	119	163	112	830	\$211,510.00	\$990.00	\$212,500.00
	Total		\$51,200.00	\$75,900.00	\$29,155.00	\$33,415.00	\$21,840.00		\$211,510.00	\$ 990.00	\$ 212,500.00

Notes

^aAssumes preparation and attendance at three TAC meetings. Cost assumes that Dudek will attend virtually.

^bAssumes preparation and attendance at four in-person Watermaster Board meetings.

Attachment B

2024 Dudek Schedule of Charges (Rate Sheet)

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DUDEK 2024 Schedule of Charges

Engineering Services

Project Director	\$345.00/hr
Principal Engineer III	\$320.00/hr
Principal Engineer II	\$300.00/hr
Principal Engineer I	\$290.00/hr
Program Manager	\$280.00/hr
Senior Project Manager	\$275.00/hr
Project Manager	\$265.00/hr
Senior Engineer III	\$260.00/hr
Senior Engineer II	\$250.00/hr
Senior Engineer I	\$240.00/hr
Project Engineer IV/Technician IV	\$235.00/hr
Project Engineer III/Technician III	\$220.00/hr
Project Engineer II/Technician II	\$210.00/hr
Project Engineer I/Technician I	\$190.00/hr
Senior Designer II	\$210.00/hr
Senior Designer I	\$205.00/hr
Designer	\$200.00/hr
Assistant Designer	\$195.00/hr
CADD Operator III	\$190.00/hr
CADD Operator II	\$180.00/hr
CADD Operator I	\$165.00/hr
CADD Drafter	\$150.00/hr
CADD Technician	\$135.00/hr
Project Coordinator	\$165.00/hr
Engineering Assistant	\$135.00/hr

Environmental Services

Senior Project Director	\$350.00/hr
Project Director	\$300.00/hr
Senior Specialist V	\$275.00/hr
Senior Specialist IV	\$265.00/hr
Senior Specialist III	\$250.00/hr
Senior Specialist II	\$235.00/hr
Senior Specialist I	\$220.00/hr
Specialist V	\$210.00/hr
Specialist IV	\$195.00/hr
Specialist III	\$185.00/hr
Specialist II	\$175.00/hr
Specialist I	\$165.00/hr
Analyst V	\$150.00/hr
Analyst IV	\$140.00/hr
Analyst III	\$130.00/hr
Analyst II	\$120.00/hr
Analyst I	\$110.00/hr
Technician III	\$95.00/hr
Technician II	\$85.00/hr
Technician I	\$75.00/hr

Mapping and Surveying Services

Application Developer II	\$245.00/hr
Application Developer I	\$190.00/hr
GIS Analyst V	\$225.00/hr
GIS Analyst IV	\$200.00/hr
GIS Analyst III	\$165.00/hr
GIS Analyst II	\$145.00/hr
GIS Analyst I	\$130.00/hr
UAS Pilot	\$150.00/hr
Survey Lead	\$245.00/hr
Survey Manager	\$220.00/hr
Survey Crew Chief	\$175.00/hr
Survey Rod Person	\$125.00/hr
Survey Mapping Technician	\$105.00/hr

Construction Management Services

Principal/Manager	\$205.00/hr
Senior Construction Manager	\$200.00/hr
Senior Project Manager	\$185.00/hr
Construction Manager	\$185.00/hr
Project Manager	\$180.00/hr
Resident Engineer	\$180.00/hr
Construction Engineer	\$175.00/hr
On-site Owner's Representative	\$165.00/hr
Prevailing Wage Inspector	\$155.00/hr
Construction Inspector	\$155.00/hr
Administrator/Labor Compliance	\$120.00/hr

Hydrogeology/HazWaste Services

Project Director	\$345.00/hr
Principal Hydrogeologist/Engineer III	\$320.00/hr
Principal Hydrogeologist/Engineer II	\$310.00/hr
Principal Hydrogeologist/Engineer I	\$300.00/hr
Senior Hydrogeologist V/Engineer V	\$275.00/hr
Senior Hydrogeologist IV/Engineer IV	\$265.00/hr
Senior Hydrogeologist III/Engineer III	\$255.00/hr
Senior Hydrogeologist II/Engineer II	\$245.00/hr
Senior Hydrogeologist I/Engineer I	\$235.00/hr
Project Hydrogeologist V/Engineer V	\$225.00/hr
Project Hydrogeologist IV/Engineer IV	\$215.00/hr
Project Hydrogeologist III/Engineer III	\$205.00/hr
Project Hydrogeologist II/Engineer II	\$195.00/hr
Project Hydrogeologist I/Engineer I	\$185.00/hr
Hydrogeologist/Engineering Assistant	\$150.00/hr
HazMat Field Technician	\$135.00/hr

District Management & Operations

District General Manager	\$235.00/hr
District Engineer	\$215.00/hr
Operations Manager	\$165.00/hr
District Secretary/Accountant	\$150.00/hr
Collections System Manager	\$150.00/hr
Grade V Operator	\$140.00/hr
Grade IV Operator	\$125.00/hr
Grade III Operator	\$115.00/hr
Grade II Operator	\$95.00/hr
Grade I Operator	\$90.00/hr
Operator in Training	\$75.00/hr
Collection Maintenance Worker	\$85.00/hr

Creative Services

Creative Services IV	\$185.00/hr
Creative Services III	\$165.00/hr
Creative Services II	\$150.00/hr
Creative Services I	\$135.00/hr

Publications Services

Technical Editor IV	\$185.00/hr
Technical Editor III	\$165.00/hr
Technical Editor II	\$150.00/hr
Technical Editor I	\$135.00/hr
Publications Specialist IV	\$140.00/hr
Publications Specialist III	\$130.00/hr
Publications Specialist II	\$120.00/hr
Publications Specialist I	\$110.00/hr
Clerical Administration	\$110.00/hr

Expert Witness – Court appearances, depositions, and interrogatories as expert witness will be billed at 2.00 times normal rates.

Emergency and Holidays – Minimum charge of four hours will be billed at 1.75 times the normal rate.

Overtime for Hourly Staff – Billed at 1.5 times the standard hourly rate.

Material and Outside Services – Subcontractors, rental of special equipment, special reproductions and blueprinting, outside data processing and computer services, etc., are charged at 1.15 times the direct cost.

Travel Expenses – Mileage at current IRS allowable rates. Per diem where overnight stay is involved is charged at cost.

Invoices, Late Charges – All fees will be billed to Client monthly and shall be due and payable upon receipt. Invoices are delinquent if not paid within 30 days from the date of the invoice. Client agrees to pay interest at a 10% annual rate for amounts unpaid greater than 30 days after the date of the invoice.

Annual Increases – These rates will increase in line with the CPI-U for the nearest urban area (per the Department of Labor Statistics) to where the work is being completed or by 5% annually, whichever is higher.

Prevailing Wage – The rates listed above assume prevailing wage rates do not apply. If this assumption is incorrect Dudek reserves the right to adjust its rates accordingly.