

Important Notice Regarding COVID-19

Pursuant to Governor Newsom's Executive Order No. N-25-20, any or all Directors may participate in the meeting by telephone or video conference.

Based on guidance from the California Department of Public Health and the California Governor's Office, in order to minimize the spread of the COVID 19 virus, please do the following:

1. You are strongly encouraged to observe the live stream of the Board of Directors meetings at http://monterey.granicus.com/ViewPublisher.php?view_id=19 or http://www.mgtvonline.com/

2. If you choose not to attend the Board of Directors meeting but wish to make a comment on a specific agenda item, please submit your comment via email by 5:00 p.m. on the Friday before the meeting. Please submit your comment to the Secretary of the Board at WRApubliccomment@co.monterey.ca.us mailto:WRApubliccomment@co.monterey.ca.us In an effort to assist the Secretary in identifying the agenda item relating to your public comment please indicate in the Subject Line, the meeting body (i.e. Board of Directors Agenda) and item number (i.e. Item No. 10). Your comment will be placed into the record at the Board meeting.

3. If you are watching the live stream of the Board meeting and wish to make either a general public comment for items not on the day's agenda or to comment on a specific agenda item as it is being heard, please submit your comment, limited to 250 words or less, to the Secretary of the Board at WRApubliccomment@co.monterey.ca.us mailto:WRApubliccomment@co.monterey.ca.us In an effort to assist the Secretary in identifying the agenda item relating to your public comment please indicate in the Subject Line, the meeting body (i.e. Board of Directors Agenda) and item number (i.e. Item No. 10). Every effort will be made to read your comment into the record, but some comments may not be read due to time limitations. Comments received after an agenda item will be made part of the record if received prior to the end of the meeting.

4. For ZOOM participation please join by computer audio at:

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https://montereycty.zoom.us/j/96838774243
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OR to participate by phone call any of these numbers below:

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+1 669 900 6833 US (San Jose)
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- +1 346 248 7799 US (Houston)
- +1 312 626 6799 US (Chicago)
- +1 929 205 6099 US (New York)
- +1 253 215 8782 US

+1 301 715 8592 US

Enter this Meeting ID number: 968 3877 4243 when prompted. Please note there is no Participant Code, you will just hit # again after the recording prompts you.

You will be placed in the meeting as an attendee; when you are ready to make a public comment if

joined by computer audio please Raise your Hand; and by phone please push *9 on your keypad.

5. If you attend the Board of Director meeting in person, you will be required to maintain appropriate social distancing, i.e., maintain a 6-foot distance between yourself and other individuals.

Aviso Importante Sobre COVID-19

De acuerdo a la orden ejecutiva No. N-25-20 del Governador Newsom, todos y cada uno de los Directores pueden participar en la reunión por teléfono o videoconferencia.

Basado en la guía del Departamento de Salud del Estado de Califonia (California Department of Public Health) y de la Oficina del Governador, para minimizar la propagación del virus COVID 19, por favor haga lo siguiente:

1. Se le recomienda firmemente que observe la transmisión de la reunión de la Junta Directiva en vivo por http://monterey.granicus.com/ViewPublisher.php?view_id=19 o http://www.mgtvonline.com/

2. Si prefiere no asistir a la reunión de la Junta Directiva pero desea hacer un comentario sobre algún tema específico de la agenda, por favor envie su comentario por correo electrónico antes de las 5:00 p.m. el Viernes antes de la reunion. Envie su comentario al Secretario de la junta al correo electronico WRApubliccomment@co.monterey.ca.us

mailto:WRApubliccomment@co.monterey.ca.us Para ayudar al Secretario a idenficar el artículo de la agenda relacionado con su comentario, por favor indique en la linea de asunto del correo electronico el cuerpo de la reunion (es decir, la Agenda de la Junta Directiva) y el número de artículo (es decir, el Artículo No. 10). Su comentario se colocará en el registro de la reunion de esta Junta.

3. Si usted esta observando la transmisión de la reunion de la Junta en vivo y desea hacer un comentario público general para articulos que no son parte de la agenda del día o para comentar en un artículo específico de la agenda mientras se esta escuchando, envie su comentario, con un límite de 250 palabras o menos, al Secretario de la Junta al correo electronico

WRApubliccomment@co.monterey.ca.us mailto:WRApubliccomment@co.monterey.ca.us Para ayudar al Secretario a idenfificar el artículo de la agenda del dia relacionado con su comentario, por favor indique en la linea de asunto del correo electronico el cuerpo de la reunión (es decir, la Agenda de la Junta Directiva) y el número de artículo (es decir, al Artículo No. 10). Se hará todo lo posible para leer su comentario y hacerlo parte del registro de la Junta, pero algunos comentarios pueden no leerse debido a limitaciones de tiempo. Cualquier comentario recibido despues del artículo de la agenda se hará parte del registro de la reunión si es recibido antes de que termine la reunión.

4. Para participar for ZOOM, por favor únase for audio de computadora por: https://montereycty.zoom.us/j/96838774243

O para participar for teléfono, llame a culquiera de los números a continuación: +1 669 900 6833 US (San Jose) +1 346 248 7799 US (Houston) +1 312 626 6799 US (Chicago) +1 929 205 6099 US (New York) +1 253 215 8782 US +1 301 715 8592 US

Cuando se le solicite, ingrese este número de reunión: 968 3877 4243. Por favor tenga en cuenta que no hay código de participante, simplemente presione # nuevamente después de que la grabación se lo indique.

Se le colocará en la reunion como asistente; cuando deseé hacer un comentario público si esta unido por la computadora utilize la opción de levantar la mano en el chat de la pantalla; o por teléfono presione *9 en su teclado.

5. Si usted asiste a la reunión en persona, deberá mantener un distanciamiento social apropiado, es decir, mantener una distancia de 6 pies entre

Call to Order at 12:30 P.M.

Roll Call

Public Comments on Closed Session Items

1.

Closed Session under Government Code section 54950, relating to the following item:

Pursuant to Government Code section 54957(b)(1), the Board will confer regarding appointment to the position of Monterey County Water Resources Finance Manager.

Note: Continuance of Closed Session to be held at the conclusion of the Board's Regular Agenda, or at any other time during the course of the meeting announced by the Chairperson of the Board. The public may comment on Closed Session items prior to the Board's recess to Closed Session.

Recess to Closed Session

Reconvene Meeting at 1:00 P.M.

Public Comment

Appointment of Vice-Chair

2.

1. Appointment of replacement Vice-Chair to serve the remaining year of a two-year

term.

Consent	Calendar
Consent	Calchuai

3.	Approve the	Action Minutes of January 19, 2021
	<u>Attachments:</u>	Draft Action Minutes January 19, 2021
4.	Receive the M Second Quart	Monterey County Water Resources Agency (MCWRA) FY 2020-21 ter Financial Status Report through December 31, 2020.
	<u>Attachments:</u>	Board Report
		FY 2020-21 Second Quarter Financial Status
5.	Approve Amo Jacobs Assoc and authorize	endment No. 4 to the Professional Services Agreement with McMillen iates for a term extension from March 16, 2021 to March 16, 2022; the General Manager to execute the Amendment.
	Attachments:	Board Report
		Amendment No. 4
		Amendment No. 3
		Amendment No. 2
		Amendment No. 1
		Agreement
		Board Order
Scheduled Items		
6.	Consider rece	eiving a report on the winter storm event of 2021.
	<u>Attachments:</u>	Board Report
7.	Consider reco of Supervisor enter into a gr receive a gran conjunction v	ommending that the Monterey County Water Resources Agency Board is adopt a resolution authorizing and directing the General Manager to rant agreement with the California Department of Fish and Wildlife to at of \$17 million dollars for the construction of Fish Exclusion System in with the Interlake Tunnel construction.
	<u>Attachments:</u>	Board Report
		Draft Final CDFW Agreement
		Fish Screen WRABOS Resolution
		Board Order
8.	Consider rece (GEMS) 2019	eiving a report on the Groundwater Extraction Management System 9 Groundwater Extraction Summary Report.

	<u>Attachments:</u>	Board Report 2019 GEMS Summary Report
		Board Order
9.	Consider rece Salinas Valley	iving a report on the addition of a Deep Aquifers Addendum to the y Water Conditions Report.
	Attachments:	Board Report
		Quarterly Report WY2021
		Deep Aquifer Addendum
		Board Order
10.	Consider adop During Droug Committee.	pting the "Standards and Guiding Principles of Reservoir Operations ght Conditions" for the Drought Operations Technical Advisory
	<u>Attachments:</u>	Board Report
		Standards and Guiding Principles
		Board Order
Key Information and Ca	alendar of Eve	<u>ents</u>
11.	February, Ma	rch and April 2021 Calendars
	<u>Attachments:</u>	February 2021
		March 2021
		<u>April 2021</u>
General Manager's Rep	<u>ort</u>	
12.	 C F F F C 	COVID-19 Update Personnel Update Reservoir Drought Operations Prop 1 Grant Update Other
<u>Committee Reports</u>		
Information Items		
13.	Information I 1. Reservoir	tems: Release Update

2. Well Permit Application Activities Update

<u>Attachments:</u> <u>Reservoir Release Update</u> <u>Well Permit Application Activities Update</u>

Correspondence

14.Letter dated February 3, 2021 from Brent Buche, General Manager to Drought
Operations Technical Advisory Committee

Attachments: D-TAC Stand Down Notice 2021

Board of Directors Comments

<u>Adjournment</u>



Board Report

Legistar File Number: WRAG 21-046

Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

Board of Supervisors

February 16, 2021

Introduced: 2/9/2021 Version: 1 Current Status: Draft Matter Type: WR General Agenda

Closed Session under Government Code section 54950, relating to the following item:

Pursuant to Government Code section 54957(b)(1), the Board will confer regarding appointment to the position of Monterey County Water Resources Finance Manager.

Note: Continuance of Closed Session to be held at the conclusion of the Board's Regular Agenda, or at any other time during the course of the meeting announced by the Chairperson of the Board. The public may comment on Closed Session items prior to the Board's recess to Closed Session.



Board Report

Legistar File Number: WRAG 21-026

Salinas, CA 93901 February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor

Current Status: Draft Matter Type: WR General Agenda

1. Appointment of replacement Vice-Chair to serve the remaining year of a two-year term.



Introduced: 2/4/2021

Version: 1

Board Report

Legistar File Number: WRAG 21-031

Salinas, CA 93901 February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor

Current Status: Draft Matter Type: WR General Agenda

Approve the Action Minutes of January 19, 2021



Introduced: 2/5/2021

Version: 1

Item No.3

1441 Schilling Place North Building Salinas, CA 93901



Action Minutes - Draft

Tuesday, January 19, 2021

1:00 PM

SPECIAL MEETING

IMPORTANT COVID-19 NOTICE ON PAGE 2-4 AVISO IMPORTANTE SOBRE COVID-19 EN LA PAGINA 2-4

Water Resources Agency Board of Directors

John Baillie, Chair Mark Gonzalez Deidre Sullivan Ken Ekelund Mike Scattini Mike LeBarre Jason Smith Matt Simis Marvin Borzini **Important Notice Regarding COVID-19**

This meeting is compliant with Governor Newsom's Executive Order N-29-20 which allows local legislative bodies to hold public meetings electronically only, without a physical location for public participation, accessible only telephonically or otherwise electronically (video conferencing) to all members of the public seeking to observe and address the local legislative body, in order to avoid public gatherings, and until further notice.

Based on guidance from the California Department of Public Health and the California Governor's Office, in order to minimize the spread of the COVID 19 virus, please do the following:

1. If you choose not to attend the Board of Directors meeting but wish to make a comment on a specific agenda item, please submit your comment via email by 5:00 p.m. on the Friday before the meeting. Please submit your comment to the Secretary of the Board at WRApubliccomment@co.monterey.ca.us mailto:WRApubliccomment@co.monterey.ca.us In an effort to assist the Secretary in identifying the agenda item relating to your public comment please indicate in the Subject Line, the meeting body (i.e. Board of Directors Agenda) and item number (i.e. Item No. 10). Your comment will be placed into the record at the Board meeting.

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3. For ZOOM participation please join by computer audio at: https://montereycty.zoom.us/j/96838774243
OR to participate by phone call any of these numbers below:
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Aviso Importante Sobre COVID-19

Esta reunión cumple con la Orden Ejecutiva N-29-20 del Gobernador Newsom que permite que los cuerpos legislativos locales tengan reuniones públicas electrónicas solamente, sin un lugar físico para la participación pública, accesibles solo por teléfono o electrónicamente (videoconferencia) para todos los miembros del público que busquen observar y dirigirse al cuerpo legislativo local, a fin de evitar reuniones públicas, y hasta nuevo aviso.

Basado en la guía del Departamento de Salud del Estado de Califonia (California Department of Public Health) y de la Oficina del Governador, para minimizar la propagación del virus COVID 19, por favor haga lo siguiente:

1. Si prefiere no asistir a la reunión de la Junta Directiva pero desea hacer un comentario sobre algún tema específico de la agenda, por favor envie su comentario por correo electrónico antes de las 5:00 p.m. el Viernes antes de la reunion. Envie su comentario al Secretario de la junta al correo electronico WRApubliccomment@co.monterey.ca.us mailto:WRApubliccomment@co.monterey.ca.us Para ayudar al Secretario a idenficar el artículo de la agenda relacionado con su comentario, por favor indique en la linea de asunto del correo electronico el cuerpo de la reunion (es decir, la Agenda de la Junta Directiva) y el número de artículo (es decir, el Artículo No. 10). Su comentario se colocará en el registro de la reunion de esta Junta.

2. Si usted esta observando la transmisión de la reunion de la Junta en vivo y desea hacer un comentario público general para articulos que no son parte de la agenda del día o para comentar en un artículo específico de la agenda mientras se esta escuchando, envie su comentario, con un límite de 250 palabras o menos, al Secretario de la Junta al correo electronico WRApubliccomment@co.monterey.ca.us

mailto:WRApubliccomment@co.monterey.ca.us

Para ayudar al Secretario a idenfificar el artículo de la agenda del dia relacionado con su comentario, por favor indique en la linea de asunto del correo electronico el cuerpo de la reunión (es decir, la Agenda de la Junta Directiva) y el número de artículo (es decir, al Artículo No. 10). Se hará todo lo posible para leer su comentario y hacerlo parte del registro de la Junta, pero algunos comentarios pueden no leerse debido a limitaciones de tiempo. Cualquier comentario recibido despues del artículo de la agenda se hará parte del registro de la reunión si es recibido antes de que termine la reunión.

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Cuando se le solicite, ingrese este número de reunión: 968 3877 4243. Por favor tenga en cuenta que no hay código de participante, simplemente presione # nuevamente después de que la grabación se lo indique.

4. Se le colocará en la reunion como asistente; cuando deseé hacer un comentario público si esta unido por la computadora utilize la opción de levantar la mano en el chat de la pantalla; o por teléfono presione *9 en su teclado.

Call to Order at 1:00 P.M.

Present: Directors Baillie, Gonzalez, Sullivan, Ekelund, Scattiini, LeBarre, Smith, Simis and Borzini Absent: None

Public Comment

Election of Officers

1. 1. Appointment of replacement Chair to serve the remaining year of a two-year term, or selection of nomination committee for appointment of replacement Chair at the February 16, 2021 Board of Director meeting.

2. Committee Assignments

Upon Motion by Director Ekelund and Second by Director Gonzalez the Board appointed John Baillie as the replacement Chair to serve the remaining year of a two-year term, and selected Directors Ekelund, Gonzalez and Sullivan as the Nomination Committee for the appointment of the replacement Vice-Chair at the February 16, 2021 Board of Directors meeting.

Ayes: Directors Baillie, Gonzalez, Sullivan,Ekelund, Scattini, LeBarre, Smith, Simis and Borzini Noes, None Absent: None

Consent Calendar

Upon Motion by Director Ekelund and Second by Director Simis, the Board approved the Consent Calendar, with the exception of Agenda Item No. 4, which was pulled by Director Ekelund for further discussion.

Ayes: Directors Baillie, Gonzalez, Sullivan,Ekelund, Scattini, LeBarre, Smith, Simis and Borzini Noes, None Absent: None

2. Approve the Action Minutes of November 16, 2020

Attachments: Draft Action MInutes November 16, 2020

3. Approve the 2021 Board of Directors and Committee Meetings Schedule.

Attachments: 2021 BOD and Committee Meetings Schedule

4. Ratify the General Manager's execution of Amendment 1 to the Professional Services Agreement with Smith & Enright Landscaping, Inc. to provide mowing & pruning services at the Pajaro River, in addition to litter removal services; and increase the total contract amount by \$82,175, to an amount not to exceed \$132,175

Attachments: Board Report

Executed - Amendment No. 1 Smith & Enright Encampment Cleanup Quote Executed Agreement Board Order

Upon Motion by Director Ekelund and Second by Director Simis, the Board ratified the General Manager's execution of Amendment 1 to the professional services agreement with Smith & Enright Landscaping, Inc. to provide mowing & pruning services at the Pajaro River, in addition to litter removal services; and increase the total contract amount by \$82,175, to an amount not to exceed \$132,175

Ayes: Directors Baillie, Gonzalez, Sullivan, Ekelund, Scattini, LeBarre, Smith, Simis and Borzini Noes, None Absent: None

Scheduled Matters

5. Consider recommending that the Monterey County Water Resources Agency Board of Supervisors:

a. Approve the Joint Exercise of Powers Agreement by and among the City of Watsonville ("Watsonville"), the County of Monterey ("Monterey"), the County of Santa Cruz ("Santa Cruz"), the Monterey County Water Resources Agency ("MCWRA"), and Zone 7 of Santa Cruz County Flood Control and Water Conservation District ("Zone 7"), herein referred to as the "Member Agencies", to form the Pajaro Regional Flood Management Agency (PRFMA) and authorize the Chair to sign the Joint Exercise of Powers Agreement; and

b. Approve the Indemnity Agreement regarding the Pajaro River Flood Risk Reduction Project ("Project") by and among the Member Agencies and authorize the Chair to sign the Indemnity

Agreement.

<u>Attachments:</u>	Board Report
	Draft Indemnity Agreement - Final Blackline
	Draft JPA Agreement - Final Blackline
	Board Order

Upon Motion by Director Gonzalez and Second by Director Sullivan the Board recommended that the Monterey County Water Resources Agency Board of Supervisors:

a. Approve the Joint Exercise of Powers Agreement by and among the City of Watsonville ("Watsonville"), the County of Monterey ("Monterey"), the County of Santa Cruz ("Santa Cruz"), the Monterey County Water Resources Agency ("MCWRA"), and Zone 7 of Santa Cruz County Flood Control and Water Conservation District ("Zone 7"), herein referred to as the "Member Agencies", to form the Pajaro Regional Flood Management Agency (PRFMA) and authorize the Chair to sign the Joint Exercise of Powers Agreement; and

b. Approve the Indemnity Agreement regarding the Pajaro River Flood Risk Reduction Project ("Project") by and among the Member Agencies and authorize the Chair to sign the Indemnity Agreement.

Ayes: Directors Baillie, Gonzalez, Sullivan,Ekelund, Scattini, LeBarre, Smith, Simis and Borzini Noes, None Absent: None

Key Information and Calendar of Events

6. January and February 2021 Calendars

Attachments: January 2021

February 2021

General Manager's Report

Public Comment: Bill Llpe

- COVID-19 Update
- Personnel Update
- Reservoir Drought Operations
- Prop 68 Grant
- COWCAP Update
- Other

Committee Reports

Information Items

7.

- **8.** Information Items:
 - 1. Reservoir Release Update
 - 2. Well Permit Application Activities Update
 - 3. Dept. of Water Resources Technical Advisory Committee Participation
 - 4. Prop. 1 Grant Notification Letters
 - Attachments:
 Reservoir Release Update Report

 Well Permit Information Application Activities Update

 DWR TAC Participation Information

 Prop 1 Grant Notification Letters

Correspondence

Board of Directors Comments

Adjournment

The Board adjourned at 2:11 p.m.



Board Report

Legistar File Number: WRAG 21-038

Item No.4

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/5/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

Receive the Monterey County Water Resources Agency (MCWRA) FY 2020-21 Second Quarter Financial Status Report through December 31, 2020.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Receive the Monterey County Water Resources Agency (MCWRA) FY 2020-21 Second Quarter Financial Status Report through December 31, 2020.

SUMMARY/DISCUSSION:

The Monterey County Water Resources Agency's FY 2020-21 approved budget estimated \$28.3 million in total revenue. As of the second quarter of FY, actual revenue received totaled \$12.9 million, which included \$9.2 million in assessment revenue, \$1.5 million in Ad Valorem taxes, \$406 thousands in hydroelectric revenue, and around \$700 thousands in Water Delivery fees. After receiving revenues in December 2020, the Agency had received around 60% in assessment and ad velorem taxes.

On the expenditure side, the Agency's FY 2020-21 approved budget estimated \$34.4 million in total expenditures. As of the second quarter of FY, actual expenditures totaled \$14.1 million, which is at 41% of the approved appropriations. Even though the percentage of YTD expenditure is higher than expected, it is normal as it included encumbrances. Comparing with last FY's expenditures in the same accounting period, it had an increase of \$1.8 million mainly caused by the increase of contract fee with Monterey One Water and COWCAP cost.

On a consolidated basis, the Agency financial performance up to December 31, 2020 was as follows:

	Approved Budget	Year-to-Date
FY 2020-21 Est. Beg. Fund Balance	\$21,385,881	\$21,385,881
FY 2020-21 Revenues	28,332,760	12,945,842
FY 2020-21 Available Funds	49,718,641	34,331,723
FY 2020-21 Expenditures	(34,443,516)	(14,116,231)
FY 2020-21 Est. End. Fund Balance	\$15,275,125	\$20,215,491

OTHER AGENCY/COMMITTEE INVOLVEMENT:

This item was received by the Finance Committee on February 5, 2021.

FINANCING:

There is no financial impact for receiving this report.

Prepared by: Erica Leal, Accountant III, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

1. FY 2020-21 Second Quarter Financial Status



Board Report

Legistar File Number: WRAG 21-038

Item No.

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/5/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

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RECOMMENDATION:

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OTHER AGENCY/COMMITTEE INVOLVEMENT:

This item was received by the Finance Committee on February 5, 2021.

FINANCING:

There is no financial impact for receiving this report.

Prepared by: Erica Leal, Accountant III, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

1. FY 2020-21 Second Quarter Financial Status

MONTEREY COUNTY WATER RESOURCES AGENCY FY 2020-2021 FINANCIAL STATUS REPORT

For Month Ending: December 31, 2020

% Monthly Time Elapsed: 50.00%

		Updated: 1.19.2021		APPROVEI	D BUDGET		YEAR-TO-DATE					
Fund	Unit	Fund Name	Budgeted Beginning Fund Balance	Approved Budget Expenditures	Approved Budget Revenue	Estimated Ending Fund Balance	YTD Actual Expenditures	Percent Budget Expended	YTD Actual Revenue	Percent Budget Received	Estimated Ending Fund Balance	Fund
111	8267	WRA Administration Fund	3,006,253	4,852,186	3,304,397	1,458,464	1,996,569	41.1%	2,740,076	82.9%	3,749,760	111
112	8484	Pajaro Levee	719,895	845,048	519,167	394,014	261,947	31.0%	315,966	60.9%	773,914	112
116	8485	Dam Operations	2,783,586	6,652,827	5,109,466	1,240,225	3,825,211	57.5%	2,704,853	52.9%	1,663,229	116
121	8486	Soledad Storm Drain	219,258	127,157	92,544	184,645	62,755	49.4%	46,266	50.0%	202,770	121
122	8487	Reclamation Ditch	1,638,434	2,016,843	1,544,456	1,166,047	909,508	45.1%	762,381	49.4%	1,491,306	122
124	8488	San Lorenzo Creek	86,574	84,247	44,666	46,993	40,782	48.4%	25,096	56.2%	70,889	124
127	8489	Moro Cojo Slough	515,138	156,473	94,912	453,577	55,201	35.3%	57,093	60.2%	517,031	127
130	8490	Hydro-Electric Operations	2,016,545	1,051,136	710,000	1,675,409	334,023	31.8%	413,287	58.2%	2,095,809	130
131	8491	CSIP Operations	2,799,783	5,473,443	4,262,440	1,588,780	2,052,356	37.5%	2,236,148	52.5%	2,983,575	131
132	8492	SVRP Operations	1,802,549	4,431,291	4,246,671	1,617,929	1,615,646	36.5%	2,663,029	62.7%	2,849,933	132
134	8493	SRDF Operations	4,560,507	2,183,064	1,730,000	4,107,443	877,675	40.2%	643,952	37.2%	4,326,783	134
303	8267	CSIP Debt Service Fund	770,672	1,767,403	1,767,403	770,672	0	0.0%	0	0.0%	770,672	303
313	8494	Debt Services	(583,545)	1,756,638	1,756,638	(583,545)	1,265,919	72.1%	2	0.0%	(1,849,462)	313
426	8495	Interlake Tunnel Project	1,050,232	3,045,760	3,150,000	1,154,472	818,641	26.9%	337,692	10.7%	569,283	426
		TOTAL:	21,385,881	34,443,516	28,332,760	15,275,125	14,116,231	41.0%	12,945,842	45.7%	20,215,491	



Board Report

Legistar File Number: WRAG 21-044

Item No.5

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/8/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

Approve Amendment No. 4 to the Professional Services Agreement with McMillen Jacobs Associates for a term extension from March 16, 2021 to March 16, 2022; and authorize the General Manager to execute the Amendment.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

a. Approve Amendment No. 4 to the Professional Services Agreement with McMillen Jacobs Associates for a term extension from March 16, 2021 to March 16, 2022; andb. Authorize the General Manager to execute the Amendment.

SUMMARY/DISCUSSION:

On December 6, 2016 the Monterey County Water Resources Agency Board of Directors approved and recommended that the Monterey County Water Resources Agency Board of Supervisors approve the Professional Services Agreement with McMillen Jacobs Associates ("MJA") in an amount not to exceed \$4,600,789.00 for a term of two (2) years with the option to extend the Agreement for three (3) additional one (1) year periods for a maximum agreement of five (5) years for the design of the Interlake Tunnel and Spillway Modification Project.

On March 7, 2017 the Monterey County Water Resources Agency Board of Supervisors approved the Professional Services Agreement with "MJA" in an amount not to exceed \$4,600,789.00 for a term of two (2) years and authorized the General Manager to Amend the agreement up to three (3) times, provided the amendments did not increase the contract amount or significantly change the scope of the Project.

On August 30, 2018 the Monterey County Water Resources Agency ("Agency") processed Amendment No. 1 to the Professional Services agreement to modify and adjust the scope of work to provide a Subsurface Investigation of the San Antonio Dam and additional Geotechnical Borings for the Interlake Tunnel and to fund this modification by deleting/adjusting other budgeted scope of services in the agreement.

On June 26, 2019 Amendment No. 2 to the Professional Services agreement was processed to extend the term of the Agreement from March 16, 2017 to March 16, 2020 and to revise Exhibit B-1 to include Exhibit B-1A (McMillen Jacobs Associates Billing Rate Sheet).

On May 20, 2020 Amendment No. 3 to the Professional Services agreement was processed to

extend the term of the Agreement from March 16, 2020 to March 16, 2021.

Amendment No. 4 will extend the term of the agreement from March 16, 2021 to March 16, 2022 and funding source(s) to be used will be determined by the Monterey County Water Resources Board of Directors. The agreement is currently set to use Grant funds, however, the ILT Program Manager is requesting an alternative funding be identified as the grant monies are projected to be needed for other phases of the ILT Project.

OTHER AGENCY INVOLVEMENT:

None

FINANCING:

The Agreement with MJA was funded by the WRA FY 2016-17 Adopted Budget for the Interlake Tunnel and Spillway Modification Fund 426-9300-8267-WRA036 which had sufficient appropriations in the amount of \$4,027,869 to compensate the MJA Agreement.

This item was heard by the Finance Committee on February 5, 2021. The Committee supported the approval of Amendment No. 4 and directed staff to use the existing grant as the funding source.

Prepared and Approved by: Brent Buche, General Manager, (831) 755 4860

Attachments:

- 1. Amendment No. 4
- 2. Amendments 1, 2, and 3
- 3. Agreement for Professional Services



Board Report

Legistar File Number: WRAG 21-044

Item No.

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/8/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

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Prepared and Approved by: Brent Buche, General Manager, (831) 755 4860

Attachments:

- 1. Amendment No. 4
- 2. Amendments 1, 2, and 3
- 3. Agreement for Professional Services

AMENDMENT No. 4 TO AGREEMENT BY AND BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY & McMILLEN JACOBS ASSOCIATES

THIS AMENDMENT No. 4 is made to the PROFESSIONAL SERVICES AGREEMENT ("Agreement") for the provision of preliminary engineering and design services for the Interlake Tunnel and San Antonio Spillway Modification by and between **McMillen Jacobs Associates**, hereinafter "CONTRACTOR", and the Monterey County Water Resources Agency, a California flood control and water resources agency, hereinafter referred to as "Agency", dated March 16, 2017.

WHEREAS, the Agency and CONTRACTOR wish to modify and extend the term of this Agreement to March 16, 2022; and

WHEREAS, the overall budget for the Agreement after this Amendment No. 4 will remain the same as before this Amendment No. 4.

NOW THEREFORE, the Agency and CONTRACTOR hereby agree to amend the Agreement in the following manner:

Section 3.1 of the Agreement is amended to read as follows:

The term of this Agreement shall begin on March 16, 2017 by CONTRACTOR and Agency, and will terminate on March 16, 2022, unless earlier terminated as provided herein.

Section 4.7 of this Agreement is amended as follows:

Exhibit B-2 PAYMENT FOR SERVICES will supersede Exhibit B-1 and Exhibit B-1A PAYMENT FOR SERVCIES (as modified and amended by Amendment No. 2 to the agreement). A copy of Exhibit B-2 is attached to this Amendment No. 4.

Except as provided herein, all remaining terms, conditions and provisions of the Agreement are unchanged and unaffected by this AMENDMENT No. 4 and shall continue in full force and effect as set forth in the Agreement.

A copy of this AMENDMENT No. 4, shall be attached to the original Agreement dated March 16, 2017.

This space left blank intentionally

IN WITNESS WHEREOF, the parties have executed this AMENDMENT No. 4 on the day and year written below.

MONTEREY COUNTY WATER RESOURCES AGENCY	CONTRACTOR
By:	Bv:
General Manager	Signature of Chair, President, or
	vice-President
Dated:	
Approved as to Fiscal Provisions.	Printed Name and Title
Approved us to I iscu I rovisions.	Dated:
Deputy Auditor/Controller	
	_By:
Dated:	(Signature of Secretary, Asst. Secretary, CFO, Treasurer or Asst. Treasurer)*
Approved as to Liability Provisions:	
	Printed Name and Title
Risk Management	Dated:
Dated:	
Approved as to Form:	
Deputy County Counsel	
Dated:	

*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

ATTACHMENT:

EXHIBIT B-2 PAYMENT FOR SERVICES – (As modified and amended by Amendment No. 2 to the Agreement)

Project: Interlake Tunnel Final Design

Task	Description	Total Amount
1	Project Management and Team Coordination	
1.1	Prepare project work plan	\$7.520
	· · · · · · · · · · · · · · · · · · ·	+ · , • = •
1.2	Establish and maintain budget and schedule control measures	\$19,040
13	Develop & monthly design & bidding phase project schedule updates	\$18 080
1.4	Develop planning level construction phase schedule	\$15,120
1.5	Develop & monthly updates of project capital cost estimate	\$34,440
1.6	Monthly progress reporting for schedule and budget	\$23,040
1.7	Prepare / submit invoicing	\$17.568
1.8	Develop / utilize project design file system for Project Team	\$8.932
1.9	Develop / maintain design QC system	\$17,200
1.10	Arrange / conduct team / onsite / online meetings (18)	\$121,200
1.11	Workshop planning and presentations (see individual scope items)	
1.12	Participate in Project's executive leadership team weekly meetings	\$58,240
Task 1:	Project Management and Team Coordination	\$340,380
2a	Preliminary Engineering - Conceptual Design Review	
2a.1	Preliminary Engineering Kickoff Meeting / Workshop	\$16,741
2a.2	Review / Develop Comments and / or Alternatives to Hollenbeck TM	\$18,904
2a.3	Present to MCWRA / Meeting	\$8,893
2a.4	QA/QC	\$3,840
Task 2a:	Preliminary Engineering - Conceptual Design Review	\$57,470
2b	Preliminary Engineering - Site Survey	
2b.1	Develop Site Survey Work Plan	\$1,840
2b.2	Establish control, topo survey of tunnel alignment and I/O structs.	\$71,354
2b.3	Assist MCWRA with ROW support	\$11,736
2b.4		\$1,472
Task 2b:	Preliminary Engineering - Site Survey	\$0
2c	Preliminary Engineering - Geotechnical Investigation Program	
2c.1	Develop Geotechnical Exploration, Testing, Reporting Plan	\$16,440
2c.2	Meet with MCWRA, DSOD, FERC	\$7,945
2c.3	Perform Geotechnical Field Exploration, Lab Testing, Report	\$403,198

Amendment No. 4 to Agreement with McMillen Jacobs Associates

2c.4	Draft Geotechnical Data Report (GDR)	\$37,056
2c.5	Final Geotechnical Data Report (GDR)	\$13,982
2c.6	Draft Interpretive Baseline Report (GIR)	\$24,096
2c.7	Final Geotechnical Interpretive Report (GIR)	\$11,758
2c.8	QA/QC	\$12,920
Task 2c:	Preliminary Engineering - Geotechnical Investigation Program	\$527,395
2d	Preliminary Engineering - Design Criteria Memorandum	
2d.1	Draft Design Criteria Memorandum	\$24,615
2d.2	Review Meeting w/ MCWRA - Draft Memorandum Comments	\$5,532
2d.3	Final Design Criteria Memorandum	\$9,195
2d.4	QA/QC	\$1,920
Task 2d:	Preliminary Engineering - Design Criteria Memorandum	\$32,170
2e	Preliminary Engineering - Report (30% Design Level)	
2e.1	Draft Preliminary Engineering Report	\$66,188
		*• · · · •
2e.2	Review Meeting w/ MCWRA - Draft Preliminary Engineering Report	\$8,432
2e.3	Final Preliminary Engineering Report	\$58,034
2e.4	Identify and present to MCWRA recommendation for each proc package	\$6,800
2e.5	Hvdraulic Analysis/ Reservoir Routing / Physical Model	+ - ,
2e.6	QA/QC	\$1.920
Task 2e:	Preliminary Engineering - Report (30% Design Level)	\$141,374
3	Design-Build Documents (Incl PS&E)	
3.1	50% Design-Build Documents (Incl PS&E)	\$262,492
3.2	Review Meeting w/ MCWRA - 50% D-B Docs	\$11,129
3.3	75% Design-Build Documents (Incl PS&E)	\$216,192
3.4	Draft Geotechnical Baseline Report (GBR)	\$15,233
3.5	Review Meeting w/ MCWRA - 75% D-B Docs	\$10,084
3.6	100% Design-Build Documents (Incl PS&E)	\$150,857
3.7	Final Geotechnical Baseline Report (GBR)	\$9,188
3.8	Review Meeting w/ MCWRA - 100% D-B Docs)	\$11,044
3.9	Final, Issue-For-Bid (RFP) Documents	\$79,780
3.10	Hydraulic Analysis/ Reservoir Routing / Physical Model	\$20,704
3.11	Support MCWRA in electrical utility applications for I/O facilities	\$6,600
3.12	Coordinate w/ building & planning dept. Mont/SLO Counties plan check	\$14,120
3.13	Provide prep of tech docs and operations to supt. Envir. Consultant	\$14,584
3.14	QA/QC	\$28,800
Task 3:	Design-Build Documents	\$850,807
4	Engineer's Report	
4.1	Draft Project Description	\$18,458
4.2	Draft Assessment Methodology	\$108,408
4.3	Review Meeting with MCWRA - Draft Engineer's Report	\$4,845
4.4	Pre-Final Project Description	\$16,137
4.5	Pre-Final Assessment Methodology	\$9,588
4.6	Review Meeting with MCWRA - Final Engineer's Report	\$4,845
4.7	Final Engineer's Report (Incl Project Description and Assess. Meth.)	\$19,894

4.8 Assist MCWRA and Program Manager with Outreach Mtg. Exhibits	\$9,664
4.9 QA/QC	\$3,840
Task 4: Engineer's Report	\$195,679
5 Bidding Phase Services	
5.1 Respond to technical questions	\$12,992
5.2 Prepare addenda to RFP	\$9,060
5.3 Assist MCWRA with proposal evaluations	\$14,224
5.4 Pre-Bid Site Visit	\$3,760
5.5 QA/QC	\$3,840
Task 5: Bidding Phase Services	\$21,131
6 EIS Support	
6.1 Kickoff Meeting	\$5,640
6.2 Assist in Developing Project Description	\$4,720
6.3 Prepare Engineering Support Documents for Alternatives	\$30,448
6.4 Assist in Developing EIS Documents	\$13,552
6.5 Review Draft EIS	\$7,520
6.6 Coordination Meetings	\$14,960
6.7 General EIS Support	\$30,960
Task 6: EIS Support	\$60,747
7 General Engineering Support	
7.1 Review and Analysis Groundwater Data	\$4,124
7.2 Develop Alternative Gate Shaft Design	\$58,440
7.3 Optimize Tunnel Design	\$62,800
7.4 Optimize Intake Design	\$63,380
Task 7: General Engineering Support	\$188,744
Task 8: Additional Geotechnical Field Exploration and Testing	\$266,200
TOTAL ALL TASKS	\$2.572.097

OP	Optional Tasks	
OP.1	Right-of-Way (detailed exhibit development)	\$92,000
OP.2	Physical Hydraulic Model of Energy Dissipation Structure	\$110,000
OP.4	Reservoir Modeling for Prop 218 Benefit Assessment	\$60,000
TOTAL C	PTIONAL TASKS	\$152,000

Task	Description	Total Amount
1	Evaluate Spillway Alternatives	
1.1	Data Collection and Review	\$9,694
1.2	Prepare Geotech & Survey Workplans	\$16,356
1.3	Field Workplan Review / Approval	\$8,042
1.4	Survey / Mapping	\$32,704
1.5	Geotechnical Investigation & Report	\$167,628
1.6	Preliminary Gate Alternatives & Hydraulic Capacity	\$25,000
1.7	PMF Routing Update	\$16,064
1.8	Structural / Seismic Capacity of Training Walls	\$17,128
1.9	Modification Alts - Conceptual Design & Cost Estimate	\$40,368
1.1	Review Workshop with DSOD	\$11,538
1.11	Draft Alternatives Technical Memorandum	\$18,444
1.12	Review	\$3,824
1.13	Finalize Alternative Technical Memorandum	\$9,730
	REMAINING BUDGET (11/18/2020) ¹	\$127,819
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		\$127,819
Took 1. Evoluate Spillway	Alternetives	\$34 6,520
Task 1: Evaluate Spillway	Alternatives	\$218,701
2	Spillway Hydraulic Design	
2.1	Draft Updated PMF Routing Technical Memorandum	\$17,036
2.2	Review	\$4,576
2.3	Final Updated PMF Routing Technical Memorandum	\$7,600
2.4	Hydraulic Analysis	\$34,520
2.7	Draft Hydraulic Design Technical Memorandum	\$17,788
2.8	Review	\$3,824
2.9	Final Hydraulic Design Technical Memorandum	\$7,934
REMAINING BUDGET (11/18/2020)		\$144,804
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		\$144,804
Task 2: Spillway Hydraulic Design ¹		\$362,970
	Emboniument Stability Evaluation	\$218,166
3	Paviaw / Undeta Drier Stability Analyses	¢42.020
3.1	Review / Opdale Phot Stability Analyses	\$43,032
3.2	Drait Stability Analysis Technical Memorandum	\$24,408 \$2,904
3.3	Review	\$3,824
3.4		\$10,930
REMAINING BUDGET (11/18/2020)		\$U
	Proliminary Decian (20%)	۵۵۲,۲ 54
4	200/ Drowings and AACE Class 4 Cast Oninian	495 360
4.1	20% Electrical (McMillen, Jacobs Acces)	\$60,200 \$60,000
4.1A	Droft Design Criteria Technical Memorandum	φου,000 Φο4 Εο4
4.2		<u>¢0,050</u>
4.3		\$8,950
REMAINING BUDGET (11/18/2020)		\$69,361
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		

Project: (Interlake Tunnel) San Antonio Spillway Final Design

Amendment No. 4 to Agreement with McMillen Jacobs Associates

Task 4: Preliminary Design	ו (30%) ¹	\$175,744 \$106,383
5	Final Design	
5.1	60% PS&E (AACE Class 3 Est; Outline Specs)	\$77,708
5.2	Basis of Design Technical Memorandum (Engineer's Rept)	\$35,100
5.3	60% Design Review	\$9,500
5.4	90% PS&E (Updated AACE Class 3)	\$81,356
5.5	Final Basis of Design Technical Memorandum (Engr's Rept)	\$18,736
5.6	Draft Bid / Contract Documents	\$38,764
5.8A	Final Electrical Design (McMillen Jacobs Associates)	\$95,000
	REMAINING BUDGET (11/18/2020)	\$0
Task 5: Final Design		\$428,436
6	DSOD Review & Approval	
6.1	Preliminary Design Workshop & Response	\$14,566
6.2	60% Design Workshop & Response	\$14,566
6.3	90% Design Review Meeting & Response	\$14,566
6.4	100% Review Meeting & Response	\$14,566
	REMAINING BUDGET (11/18/2020)	\$39,142
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		\$39,142
Task 6: DSOD Review & Approval ¹		\$58,26 4 \$19,122
7 Not Defined		
7.1		
Task 7: Not Defined		
8	EIS Permitting Support	
8.1	Project Description Assistance (80 hr allowance)	\$16,072
8.2	Participate in Public Meetings (80 hr allowance)	\$19,120
8.3	Construction Impact Support (80 hr allowance)	\$16,072
	REMAINING BUDGET (11/18/2020)	\$51,264
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		\$51,264
Task 8: EIS Permitting Support ¹		\$51,26 4 \$0
10	Project Management	
10.1	Project setup, work plan	\$9,592
10.2	QA/QC, staffing, budget, schedule control	\$40,864
10.3	Invoicing, cash flow, status reporting	\$33,084
10.4	Project Meetings, management, coordination	\$63,360
	REMAINING BUDGET (11/18/2020)	\$43,725
BUDGET TRANSFERRED TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION		\$15,839
Task 10: Project Management ²		\$146,900 \$131,061
Task 11: San Antonio Dam Subsurface Investigation		\$420,242
12.1 Geotechnical Investigation		\$262,165
12.2 Core Sampling and Investigation of Hardened Concrete		\$186,064
Task 12: San Antonio Spillway Investigation		\$448,229
	REMAINING BUDGET ALL TASKS	\$476,115

TOTAL ALL TASKS

\$1,766,692

 BUDGET REMAINING TO BE TRANSFERRED TO THE TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION PROJECT. PROJECT TASK SCOPE AND BUDGET WILL BE REMOVED FROM THE CONTRACT.
 TASK SCOPE WILL REMAIN THE SAME TO SUPPORT PROJECT MANAGEMENT ACTIVITIES FOR THE SAN ANTONIO SPILLWAY FINAL DESIGN PROJECT. BUDGET REMAINING AFTER THE BUDGET TRANSFER TO TASK 12: SAN ANTONIO SPILLWAY INVESTIGATION WILL BE \$27,886.



November 13, 2020

Mr. John Hollenbeck Hollenbeck Consulting Via email: johnhollenbeckpe@gmail.com

Subject:San Antonio Dam SpillwayRe:Proposal for San Antonio Spillway Chute Investigation, Revision 03

Dear Mr. Hollenbeck:

McMillen Jacobs Associates (McMillen Jacobs) has prepared a scope of work and budget for the predesign engineering investigation associated with the destructive and nondestructive assessment and test of the Monterey County Water Resources Agency (MCWRA) San Antonio Spillway chute. John Hollenbeck, P.E. prepared the Draft "Work Plan for Pre-Design Engineering Investigation Associated with Spillway Chute Feasibility Study" on May 11, 2020, referred to as the "Draft Work Plan" herein. The Draft Work Plan outlines the required tasks to collect relevant pre-design input on the spillway chute structural deficiencies. According to the Draft Work Plan, structural deficiencies identified in the spillway include the following:

- Concrete slab is suspected to have distress by chemical attack or aggregate reactivity. Water quality analyses of seepage water collected in the lateral drains show a high level of sulfate.
- The underdrain system's functionality to convey groundwater, including transverse drains parallel to the chute joints and vertical drains through the wall footings, are compromised due to sediment accumulation and clogging.

McMillen Jacobs' prepared a proposal on June 5, 2020 that included all of the proposed work tasks presented in the Draft Work Plan. Ron Drake/COWI, Program Manager, sent an email request on June 11, 2020 to refine our proposal to perform the concrete coring and engineering analysis (Task 2 of Hollenbeck's Draft Work Plan) as the first phase of this pre-design investigative work. This proposal includes a scope of work and budget for the concrete coring and engineering analysis (Task 2, of Hollenbeck's Draft Work Plan). A detailed summary of the budget estimate for engineering, laboratory work, and construction for the concrete coring work are provided as Appendices A and B to this document.

PROJECT UNDERSTANDING

McMillen Jacobs currently has a contract with MCWRA that includes a scope of work and budget to complete a San Antonio Dam spillway raise associated with the Interlake Tunnel Project. As part of this work, GEI conducted a total of four borings within and around the spillway approach channel (SA-1b,

1

and SA-2 through SA-4), just upstream of the ogee control structure (Figure 1); however, no borings were conducted within the spillway footprint.



Figure 1: Plan View of Spillway Components

After the Oroville Dam spillway failure, DSOD subsequently required that a dam safety inspection of the San Antonio Dam spillway be completed. This inspection identified structural deficiencies in the existing spillway and several major modifications that would be required to meet DSOD's criteria. In a subsequent agreement with DSOD, MCWRA agreed to have the recommended spillway improvements constructed by 2024.

This scope of work follows the Task 2 of the Draft Work Plan developed by Hollenbeck to provide engineering, lab work, and construction support for the concrete coring work. In addition to the Draft Work Plan developed by Hollenbeck, DSOD has suggested that additional investigations be performed to evaluate the geotechnical and groundwater conditions underlying the spillway structure.

WORK TASK

The work task presented below includes the concrete coring and engineering analysis, a subsurface investigation program that includes geophysical surveys, geotechnical borings, hydraulic testing, laboratory testing, and standpipe piezometers to meet DSOD's request for additional subsurface investigations. Details of these scope items are presented in the following paragraphs.

Task 1 – Geotechnical Investigation

Investigation Task 1.1 – Geophysical Survey

This task includes a geophysical survey of the Spillway Chute using Ground Penetrating Radar (GPR) methods. The limits of the survey are indicated in attached Exhibits 1 through 4. This approach measures

2
the changes in the propagation of electromagnetic energy in the ground to produce an image of subsurface conditions. The GPR signal is reflected when the electrical properties of the subsurface changes. The GPR system uses a transmitting and receiving antenna to induce the signal and record the reflected data along pre-defined transects. The data can be viewed in real-time as the antenna is pulled across the spillway chute along pre-defined transect spacing. This type of survey is best suited for identifying near-surface voids, pipes, or other subsurface anomalies.

In general, the size of anomaly that can be detected is governed by the spacing of the transect. For the proposed GPR survey, a transect spacing of 2.5 feet conducted perpendicular to the spillway access has been selected to optimize the amount of survey coverage. These transects will then be tied together through a series of four longitudinal transects. The data collected from the transects are then digitally processed to produce 2-D and 3-D images of the subsurface.

The objective of this survey is to identify near-surface anomalies along the bedrock-concrete interface such as voids or loose material. These potential conditions could result from internal erosion of degraded rock or soil and subsequent ground loss through the spillway drains, expansion joints, or to a free face.

The geophysical surveys will be conducted by a team of one geophysicist from Collier Consulting (Collier) who will be assisted by a McMillen Jacobs geotechnical staff member. The work is anticipated to be conducted over five field days.

The resulting work product will consist of a series of geophysical profiles that illustrate the data in graphical form. A summary memorandum will describe the findings, observation of voids or anomalies, the methods used, and a description of survey activities. This work will be incorporated into a geotechnical data report as an appendix that will be prepared as part of the geotechnical investigation task (Investigation Task 1.3). The GPR summary memorandum will be submitted and presented to MCWRA via a conference call meeting. After MCWRA's review and approval of the report, meeting materials will be prepared documenting the findings and a conference call meeting will be scheduled with DSOD to discuss the findings.

Assumptions:

The following assumptions were made when developing the geophysical survey scope of work:

- The field survey transects will be performed over 5 days.
- Surveys will require suitable weather conditions. Surveys cannot be performed during inclement or winter weather conditions.
- There are no restrictions to spillway access while the surveys are being completed.
- Field crews will consist of one Collier geophysicist and one McMillen Jacobs geotechnical staff.
- The budget associated with this item does not include meeting or site/spillway specific training.

- Data positioning will be determined using a robotic total station.
- The meeting with MCWRA will be a conference call meeting.
- The meeting with DSOD will be a conference call meeting.

Submittals:

The following submittals will be provided to MCWRA as part of this work task:

- Graphical 2-D and 3-D survey results.
- A summary memorandum describing the findings, observation of voids or anomalies, the methods used, and a description of survey activities.

Investigation Task 1.2 – Spillway Reinforcing Locating Services

This task is comprised of a rebar location survey of the San Antonio concrete spillway. Subdynamic Locating Services will serve as a subcontractor for McMillen Jacobs and will complete the work.

Assumptions:

The following assumptions were made when developing the spillway reinforcing locating scope of work:

- Subdynamic will identify locatable rebar using a GPR Mini device.
- Locates will be made on the spillway surface in with paint, chalk, whiskers, or flags as appropriate.
- Locates will include up to 40 hours of on-site time and up to 5 hours of travel time over five days.

Submittals:

The following submittals will be provided to MCWRA as part of this work task:

• A service agreement including a brief description of the locating technician's findings.

Investigation Task 1.3 - Geotechnical Investigation

This task is comprised of a geotechnical investigation of the spillway chute. This work will include conducting geotechnical borings, performing in-situ hydrological testing, conducting geotechnical laboratory testing, and installing of standpipe piezometers within the footprint of the spillway chute. Specifically, this work would include the following:

- Conduct a literature review of available geologic, geotechnical, and spillway related construction documents.
- Prepare a Geotechnical Work Plan outlining the field methods, drilling hazards, field procedures, borehole completion details, safety measures, and contingency measures.
- Conduct a locates survey by calling the Underground Service Alert of Northern California (811) to identify underground utilities within the public right-of-way.
- Obtain a Monterey County Monitoring Well Permit for the six proposed piezometers.
- Conduct a driller required pre-walk site visit to plan crane access and drill rig mobilization into the spillway.
- Mobilization of field staff, equipment, and a drilling subcontractor.

- Advance six borings (SB-1 through SB-6) to a depth at which moderately weathered to fresh rock is encountered. For planning and budgeting purposes we have assumed an average depth of 30 feet below the existing grade; however, additional drilling rods will be provided to advance the holes to greater depths, if needed. Borings will be drilled using casing advance and/or HO3 diamond core drilling methods using water or a combination of water and polymer emulsion as a drilling fluid. The six borings will generally be equally spaced along the spillway alignment at the approximate location shown in Exhibits 2 through 4. Borings will be located between the located slab reinforcing identified in Task 1.2. Where and when practical, the borings will be shifted to correspond with spillway excavation explorations to minimize the number of perforations within the existing concrete. The hole termination objective for each boring will be foundation rock that is fresh to moderately weathered. The borings are expected to occur over thirteen (13), 10-hour long days. Cuttings from the borings will be collected in drums such that they can be removed from the spillway and spread on the ground at an on-site location designated by MCWRA. It is assumed that water needed for drilling purposes will be provided by MCWRA at a source located within 1 mile of the drilling site. Packers, pumps, and materials will be kept on-hand to seal the hole if artesian conditions are encountered. This approach assumes that DSOD will allow the use of rotary drilling methods with drilling fluids (water and polymer emulsion). Modifications to this scope and budget will be required if these methods are not allowed.
- When soil or highly weathered rock is encountered, drillers will collect standard penetration tests or California Modified samples at 5-foot intervals for classification and laboratory testing.
- When rock is encountered, the boring will be advanced using diamond core HQ3. Continuous Rock core samples will be placed in boxes and stored at a designated area on-site for future evaluation.
- Conduct a total of six (6) water pressure test (lugeon testing) or falling head tests based on the condition of the soil and rock encountered. One test will be performed in each boring. In good rock conditions (RQD > 60), a five-stage water pressure test will be performed. Maximum injection pressures will be limited to roughly 1 psi per foot of ground cover. Where poor rock conditions or soil are encountered, a falling head test (or constant head test) will be performed. These tests will be conducted to evaluate the permeability of the underlying formation to support the design of spillway modifications.
- Install a total of Six (6) 1.5-inch groundwater piezometers to monitor groundwater following the completion of the borings. One piezometer will be installed in each boring. Each piezometer will include a 10-foot long 0.020-inch slotted screen. The screened zones of the piezometers will be backfilled with silica sand. The sand will be sealed with a 3- to 5-foot thick layer of hydrated bentonite pellets or chips. The piezometer casing will then be backfilled to 2 feet below the ground surface with a non-shrink Portland cement bentonite grout. The upper 2-feet of the piezometer backfill will include a stainless steel, flush mount monument which will be set in high strength, sulfate resistant, Portland cement mortar (Figure 2).
- Each boring and piezometer installation will be logged by a McMillen Jacobs geotechnical engineer or geologist. Logs will note relevant soil, rock, groundwater conditions observed in the recovered samples, as well as piezometer installation details.

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- Demobilize field staff, equipment, and drilling subcontractor from the site upon the completion of drilling;
- Transport or ship selected soil and rock samples to a sub-contracted soil and/or rock testing laboratory for testing;
- Conduct laboratory testing on selected soil samples. Testing will be selected based on the conditions encountered; however, for budgeting purposes, the following tests have been assumed:
 - Ten (10) natural moisture content determinations (ASTM D2216)
 - Eight (8) combined sieve-hydrometer tests (ASTM D422)
 - Eight (8) plasticity limits determinations (ASTM D4318)
 - Six (6) Uniaxial Compressive strength determinations (ASTM D7012)
 - Six (6) corrosions tests comprised of:
 - Resistivity (ASTM G67)
 - Chloride (ASTM D4327)
 - Sulfate (ASTM D4327)
 - pH (ASTM G51)
 - Redox (ASTM G200)
 - Sulfide (Acetate Paper)
- Prepare a Geotechnical Data Report (GDR) presenting a summary of the literature review and the findings of the observed geologic conditions, geologic logs, and laboratory test results from the field explorations.



Figure 2: Schematic of Piezometer Installation

Assumptions:

The following assumptions were made when developing the geotechnical investigation scope of work:

- McMillen Jacobs will provide up to 3 working days' notice to DSOD before drilling occurs.
- Drilling and piezometer installation will take place over thirteen (13) days.
- Workdays will be 10 hours long.
- Drilling will be conducted using HQ3 (4-inch OD) or casing advance methods with HWT casing (4.5-inch OD). The resulting hole diameter is expected to be roughly 4.5 to 6-inches in diameter, depending on the quality of the rock encountered.
- Piezometers will be housed in an 8-inch diameter, flush mount monument comprised of 14-gauge stainless steel (CNI Manufacturing #SP7002SS Manhole, or equivalent).
- Drillers can mobilize their drill rig into the spillway using a 50-ton mobile crane from either the Ogee Control Structure, or one of the access roads adjacent to the spillway using established roadways. Therefore, no roadway work will be required.
- Once mobilized into the spillway, the drill rig may remain in the spillway until the scheduled completion of work.
- Water for drilling purposes can be obtained on site.
- Water used for Portland cement mortars used to set piezometer monuments will be from on-site potable sources.
- Drilling cuttings will be drummed at the drilling site for transport to MCWRA designated disposal area on-site where the drums will be emptied.

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• No additional safety training will be required to perform work within the spillway.

Submittals:

The following submittals will be provided to MCWRA as part of this scope of work:

- Geotechnical Investigation Work Plan
- Draft and Final Geologic Data Report

Task 2 - Core Sampling and Investigation of Hardened Concrete

This task includes sampling the concrete spillway chute structure by taking core samples to evaluate the concrete strength and soundness. The investigation proposes cores will be taken from the numerous panels within the chute floor, and additional cores from the walls. The exact number of cores will be estimated after review of the GPR completed in Task 1.1 and the rebar locating services completed in Task 1.2. At a minimum, corings will be taken at the four geotechnical borings within the concrete portion of the spillway proposed in Task 1.3 (SB-2 through SB-5), plus one at the ogee crest and one at the downstream flip bucket. This will help to characterize foundation conditions for assessing the repair or replace options. The investigation work will include laboratory examination of the core samples. Jensen Hughes, Inc. will complete the laboratory examination under a subcontract as they have expertise in specialized testing of hardened concrete and forensic investigation of hardened concrete. Their analysis includes, but will not be limited to the following:

- Compressive and tensile strength in addition to unit weight of cores.
- Petrographic examination, in conjunction with hardened air-void analysis and scanning electron microscopy, providing information concerning: air content and distribution, estimated water/cement ratio, cracking, degree of hydration, aggregate type, composition and soundness, secondary deposits, binder type and paste content, and depth of carbonation.
- Petrographic services to identify causes of distress and deterioration in materials, as well as predict future performance of the materials to aid in the evaluation of a number of issues, which include, but are not limited to, surface scaling, aggregate pop outs, cement-aggregate reaction, discoloration/staining, chemical attack, and cause of cracking distress.
- Additional testing may be suggested by Jensen Hughes, the testing agency, to assist in determining life expectancy and mitigation measures especially in terms of existing and continued ASR deterioration. This testing is not included in this proposal and will only be suggested if previous findings indicate rehabilitation as an option.

A detailed report documenting the findings and observations of the core sampling field exploration and laboratory results will be prepared, submitted, and presented to MCWRA via a conference call meeting. After MCWRA's review and approval of the report, meeting materials will be prepared documenting the findings and a conference call meeting will be scheduled with DSOD to discuss the findings.

Engineering Assumptions:

The following assumptions were made when developing the engineering scope of work for Task 2:

• Corings will be 6-inches in diameter; however, the corings may be decreased to 4.5-inches in diameter to avoid rebar, if necessary.

- It is assumed that the 4 days will be required to complete the coring fieldwork.
- GPR results will be submitted to DSOD prior to commencing the coring effort.

- Rebar locating services will be completed prior to commencing the coring effort.
- McMillen Jacobs will provide up to 3 working days' notice to DSOD before coring occurs.
- Up to 38 cores in concrete slab and up to 8 cores in the concrete walls, without reinforcing steel, however, the exact number of cores will be estimated after completion and the analysis of the GPR.
- Up to 38 cores in concrete slab and up to 8 cores in the concrete walls will be obtained at the locations indicated. Concrete cores will be collected in accordance with ASTM C42, "Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete."
 - It is assumed that all cores will be adequate for analysis and testing. Core retrieval that results in samples that are not adequate for compression or tensile testing will be assumed adequate for petrographic analysis. Additional sample cores will not be taken unless directed by MCWRA or its representatives.
 - Jensen Hughes, the testing agency, in coordination will McMillen Jacobs will select 10 cores for petrographic testing, microscopy, and other ASTM tests indicated in Table 1 of the provided Draft Work Plan, see Attachment A.
 - The remaining 36 cores will be split evenly between compression and tension testing.
- A total of 12 foundation samples will be obtained in Task 2 and laboratory analysis completed to determine soluble sulfate content. Soluble sulfate testing is typically for soil material but will be adapted as necessary to the recovered foundation material.
- Concrete coring work and laboratory testing will be completed in accordance with Table 1 of the Draft Work Plan, see attachment A.
 - Additional non-standard testing may be requested by Jensen Hughes, the testing agency, to address the requirement of providing a "fact-based assessment of the structure's condition and life expectancy." These tests specifically relate to ASR and are utilized by DOTs to predict continued concrete performance for concrete impacted by ASR.
- The meeting with MCWRA will be a conference call meeting.
- The meeting with DSOD will be a conference call meeting.

Construction Assumptions

The following assumptions were made when developing the construction scope of work for Task 2:

- Concrete core drilling is anticipated to be performed by a local subcontractor. Core drills of 6inch in diameter will be performed to the quantities stated in the bid schedule. It is anticipated that the concrete conditions are suitable to provide the complete and necessary core cylinders required. If additional core drilling must be performed to provide the desired number of cylinders for testing, due to breakage or other circumstances, the additional cores will be billed at the core and patching rates summarized in Table 1.
- Concrete core holes will be patched with a one-component repair mortar with properties similar to that of the existing concrete. No reinforcing steel treatment, installation, or modification work has been included in this scope of work.
- Cleanout and repair of core holes will be performed with compressed air; core hole surface will be roughened with a stiff wire brush, cleaned with compressed air and then saturated with water prior to patching. A curing compound will be applied over the exposed surface.
- For pricing purposes, wall cores have been assumed at 12-18 inches thick, and slab cores have been assumed at 18-20 inches thick.

<u>Submittals:</u>

The following submittals will be provided to MCWRA as part of this work task:

- Draft and Final Core Sampling Field and Laboratory Investigation Report.
- MCWRA Meeting Minutes.
- DSOD Meeting Materials.
- DSOD Meeting Minutes.

BUDGET ESTIMATE

McMillen Jacobs has prepared the below pricing to serve as a lump sum price to provide engineering and laboratory support and a unit priced proposal to perform the construction operations associated with the San Antonio Spillway Chute Pre-Design Investigation Project. In addition to the below pricing, McMillen Jacobs has provided unit rates for labor and equipment assets for hourly standby billing, for consideration of services and time required in addition to or outside of the scope of services stated in Table 1 below. Additional mobilizations for labor and equipment will be billed at actual costs plus markup.

Assumptions:

The following assumptions were made when developing the Construction pricing.

- After completion of Task 1.1, Geophysical Survey, the number of wall and slab cores estimated in Task 2.0 will be updated and therefore, the cost associated with the number of cores will be adjusted to reflect the exact number of cores.
- Wage rates are based upon California State Prevailing Wage Rates for Monterey County based on June 5, 2020 published rates. Future rates will be billed in accordance with updated wage rate increases.
- Sales taxes have been on materials only, based on a rate of 7.75% for the reported Monterey County tax rates.
- A Class B Construction Bond rate has been included in the cost of work.
- Per Diem for craft labor has been included per GSA rates for San Luis Obispo, California at a total of \$124.00/Night for lodging and \$71.00/day for meals and incidentals.
- The construction cost estimate includes 80 hours of a McMillen Jacobs Project Managers time. It is assumed this is sufficient time to perform all paperwork, procurements, pay applications, and associated project management duties associated with this work. Additional hours will be billed at actuals plus contractor's markup.
- No trips to the project site have been included for the Project Manager.
- The estimate includes no formal surveying. Repair locations will be based on field reference, measurements.
- An allowance of \$500.00 has been included for erosion control BMP's and installation, however, no costs for the development of SWPPP plan or permit have been included.
- No fees have been included for permits.

Item No.	Description	Qty	Units	Unit Price	Total Price			
Task 1: G	eotechnical Investigation							
1.1	GEOPHYSICAL SURVEY	1	LS	\$63,788.31	\$63,788.31			
1.2	SPILLWAY REINFORCING LOCATING SERVICES	1	LS	\$13,500.00	\$13,500.00			
1.3	GEOTECHNICAL INVESTIGATION	1	LS	\$184,876.26	\$184,876.26			
Task 2: Core Sampling and Investigation of Hardened Concrete								
50	ENGINEERING & CONCRETE FIELD TESTING	1	LS	\$101,147.18	\$101,147.18			
100	GENERAL REQUIREMENTS	1	LS	\$38,657.66	\$38,657.66			
2050	MOBILIZATION & PREPARATORY WORK	1	LS	\$9,524.80	\$9,524.80			
2100	WALL CORES – 6" DIAMETER	8	EA	\$416.82	\$3,334.56			
2200	GROUT PATCHING OF CONCRETE CORES	8	EA	\$549.76	\$4,398.08			
2500	SLAB CORES – 6" DIAMETER	38	EA	\$416.81	\$15,838.78			
2700	GROUT PATCHING OF SLAB CORES	38	EA	\$346.40	\$13,163.20			
			Tot	al Base Bid	\$448,228.83			

Table 1 – Pricing for Pre-Design Investigation Services

SCHEDULE

We anticipate that work tasks outlined within this letter proposal will be completed within the following schedule with an assumed notice to proceed date of October 26, 2020. Major milestones are summarized below.

•	Task 1.1 – Geophysical Survey (5 weeks)	Oct 26 through Nov 27, 2020
•	Task 1.2 – Spillway Rebar Location Services (1 week)	Jan 18 through Jan 22, 2021
•	Task 1.3 – Geotechnical Investigation Plan (2 weeks)	Nov 30 through Dec 18, 2020
•	Permits and Planning (2 weeks)	January 4 through January 15, 2021
•	Driller Site Walk (1 Week)	Jan 18 through Jan 22, 2021
•	Drilling and Piezo Installation (5 weeks)	Jan 25 through Feb 26, 2021
•	Logs and Laboratory Testing (3 weeks)	March 1 through Mar 19, 2021
•	Draft GDR (2 weeks)	March 22 through April 2, 2021
•	Task 2 – Core Sampling Field Work	Jan 25 through Jan 29, 2021
•	Task 2 – Submit Draft Core Sampling Inv Report	April 2, 2021
•	Task 2 – MCWRA Review Meeting	April 20, 2021
•	Task 2 – Submit Final Core Sampling Inv Report	May 7, 2021
•	Task 2 – DSOD Review Meeting	May 25, 2021

We appreciate the opportunity to continue to work with MCWRA on the San Antonio Dam Spillway Chute Investigation Project. If you have any questions or need additional information, please contact me at (208) 342-4214.

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Sincerely,

Most D. Mc Miller

Morton D. McMillen, P.E. Executive Vice President

unter Meilan

Curtis Neibaur Lead Estimator

cc: Mara McMillen President, McMillen, LLC

> Mark Merklein Lead Structural Engineer

Paul Richards, PE Lead Geotechnical Engineer

File

deplan

Jodi Burns Project Manager

Appendix A Detailed Engineering and Field-Testing Budget

	McMillen		Bowen (Structural	Merklein (Structural	Richards (Lead	Burdalski (Staff	Jensen	Wood													
Statt Rates	(QC) \$ 254.4(Burns (PM) \$ 174.00	QC) \$ 185.50	Lead) \$ 243.80	Geotech) \$ 185.50	Geotech) \$ 121.90	Hughes \$ 285.00	(Sr. Cadd) \$ 138.86	(Adm.) \$ 120.00	Hours	Total Labor	Airfar	Hotel / Ca	Rental/Milage	Meals	Permits	Sub	ocontractor	Total Expenses		τοται
Task 1: Geotechnical Borings	1	3 26	-	4	104	371	-	32	20	•	\$ 78,89	5 \$ 2,00) \$ 4,35	\$ 3,360	\$ 1,595	\$ 1,789	9 \$	170,176	\$ 183,27) \$	262,165
1.1 Geophysical Survey					2	66		16	6		\$ 11,35	8 \$ 50	900	\$ 720	\$ 385		\$	43,918.75	\$ 46,42	4 \$	57,782
Agency Review Meeting	:	2 8		2	2	2					\$ 3,00	3							\$-	\$	3,003
DSOD Review Meeting		2 8		2	2	2					\$ 3,00	3							\$-	\$	3,003
1.2 Spillway Reinforcing Locating Services											\$-						\$	13,500.00	\$ 13,50)\$	13,500
1.3 Geotechnical Investigation											\$-								\$-	\$	-
Permitts, Planning, and Document Review					12	32			4		\$ 6,60	7				\$ 1,789	9		\$ 1,78)\$	8,396
Geotechnical Exploration Plan		2 4			8	30			2		\$ 6,58	6							\$-	\$	6,586
Driller Prewalk Site Visit					20				2		\$ 3,95	0 \$ 50) \$ 15	\$ 240	\$ 110				\$ 1,00)\$	4,950
Drilling and Piezometer Installation (13 Days on-site)					40	159					\$ 26,80	2 \$ 1,00	\$ 3,30	\$ 2,400	\$ 1,100		\$	106,911	\$ 114,71	1 \$	141,513
Logs and Laboratory Samples					6	30					\$ 4,77	0					\$	5,846.00	\$ 5,84	5 \$	10,616
Geotechnical Data Report		2 6			12	50		16	6		\$ 12,81	6							\$-	\$	12,816
Task 2: Coring and Laboratory Testing	14	1 70	9	92			16	18	4	223	\$ 47,38	0 \$ 90) \$ 2,23	s -	\$ 959	\$-	\$	49,670	\$ 53,76	/ \$	101,147
Progress Reports and Invoicing		8							4	12	\$ 1,87	2							\$-	\$	1,872
Field Investigation (4.5 days)		36		36			16			88	\$ 19,60	1 \$ 900.0) \$ 2,238.0)	\$ 959.00				\$ 4,09	/\$	23,698
Field Packing and Delivery of Cylinders											\$-						\$	2,500.00	\$ 2,50)\$	2,500
Laboratory Testing 46 Concrete Cores, 18 Compressive and																					
18 Tensile Strength Tests, Petrogrpahic Examinmation (10																					
Samples), Foundation Samples (12), Groundwater Samples										-											
(12), and Lead Materials Engineering Site Visit											\$-						\$	47,170.00	\$ 47,17)\$	47,170
Preparation of Report	8	8 8	8	48	12			16		100	\$ 21,06	1							\$-	\$	21,061
Agency Review Meeting		2 8		2							\$ 2,38	8								\$	2,388
Adjudication of Comments		2 2	1	4	2			2			\$ 2,66	6								\$	2,666
DSOD Review Meeting		2 8		2							\$ 2,38	8							\$ -	\$	2,388
Total Hours	22	2 96	9	96	104	371	16	50	24	223											
Total Budget	\$ 5,596.8) \$ 16,704.00	\$ 1,669.50	\$ 23,404.80	\$ 19,292.00	\$ 45,224.90	\$ 4,560.00	\$ 6,943.00	\$ 2,880.00		\$ 126,275.0	0 \$ 2,90) \$ 6,58	\$ \$ 3,360	\$ 2,554	\$ 1,789	9 \$	219,846	\$ 237,03	/ \$	363,312

Appendix B Detailed Construction Budget

McMillen, LLC 2020-48R1 Curtis Neibaur	San Antonio	o Spillwa	ay Insp - Core Dr	ill		ESTIN	IATE SUMMA	RY - COSTS &	& BID PRICE	S						Page 06/18/2020	1 16:25
Bid# Client# Bid Description	Quantity	Unit	Manhours	Direct Labor	Perm Matl	Constr Matl	Equip- Ment	Sub- Contr	Direct Total	Indirect Charge	Total Cost	Total Cost Unit Price	Markup	Bala Total	nced Bid Unit Price	Bid Price	Bid Total
100 GENERAL REQUIREMEN	1.0 NTS	00 LS	220 220.00	18,026		12,206	2,229		32,461	410	32,871	32,871.06	5,787 17.6 %	38,658	38,657.66	38,657.66 	38,657.66
2000 SCOPE ITEM 2: CONCRE	46.0 ETE CORING	00 EA														 	
2050 MOBILIZATION & PREP.	1.0 ARATORY W	00 LS VO	32 32.00	3,334		500	764	3,400	7,998	101	8,099	8,099.05	1,426 17.6 %	9,525	9,524.80	9,524.80	9,524.80
2100 WALL CORES (12" to 18"	8.0	00 EA						2,800	2,800	35	2,835	354.42	499 17.6 %	3,335	416.82	416.82	3,334.56
2200 GROUT PATCHING OF C	8.0 CONCRETE C	00 EA COR	24 3.00	2,500		620	573		3,693	47	3,740	467.47	658 17.6 %	4,398	549.76	549.76	4,398.08
2500 SLAB CORES (18" to 20")	38.0	00 EA						13,300	13,300	168	13,468	354.42	2,371 17.6 %	15,839	416.81	416.81 	15,838.78
2700 GROUT PATCHING OF S	38.0 LAB CORES	0 EA	80 2.11	8,335		808	1,910		11,053	140	11,193	294.55	1,970 17.6 %	13,163	346.40	346.40	13,163.20
Totals:			356	32,195		14,133	5,476	19,500	71,305	900	72,206		12,711	84,917			84,917.08
Code between Baland [bracketed numbers represe ** in front of the Biditem in Markup % is shown as a pe	ced Bid & ont adjusted qu ndicates a Nor rcentage of co	Bid P 1antities] 1-Additiv	rice: U=Unba veitem	alanced, F=Frozen	, C=Closing	g Biditem (item to ab:	sorb unbal	ancing dif	fferences).							
Bond from Summary Table OVERHEAD PROFIT Markup on Resource Costs MARKUP TOTALS ====	7 10 ==>	7.0000 % 0.0000 %	o of TC 6 of ++							900			4,991 7,719 12,711	~	<= Subtotal		
***** TOTAL	JOB =====>	>	356	32,195		14,133	5,476	19,500	71,305	900	72,206		12,711	84,917		 	84,917.08

McMillen 2020-48R Curtis Nei	, LLC 1 baur	San Antonio	o Spillway Insp - Core Dril	11			ESTIMA	TE SUMMAI	RY - COSTS &	z BID PRICE	5						Page 06/18/2020	2 16:25
Bid#	Client# Bid Descriptio	Quantity	Unit Manhours		Direct Labor	Perm Matl	Constr Matl	Equip- Ment	Sub- Contr	Direct Total	Indirect Charge	Total Cost	Total Cost Unit Price	Markup	Balan Total	ced Bid Unit Price	Bid Price	Bid Total
Spread Inc	lirects On TO	DTAL COST		Spread N	larkups On T	OTAL COST		Spre	ead Addons&B	onds On T	OTAL COST							
	Selected Bond	Bond Cal Table: CC D	lculations escription: California C	lass		_												
First: Next: Next: Next: Remain Time T Time T Length	Contract 4 \$ \$ 2, \$ 2,	Amount 500,000 000,000 500,000 500,000 500,000 Extended Extended	Rate per 1000 10.61 10.61 10.61 9.05 8.28 7.52 Subtotal: d Time Rate 1: 1.0000 % d Time Rate 2: 0.0000 % Total Bond Amount:	Bon \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	d Amount 900.97 0.00 0.00 0.00 0.00 900.97 0.00 0.00	_												
Estim Bid Date:	ate Notes	Owner: Estimat	: tor in Charge: CWN			Engineeri	ing Firm:											
Desired B Last Sum Last Sprea	id (if specified) nary on 06/18/2 id on 06/18/202	= 2020 at 4:19 PM 20 at 4:19 PM.	0.00	Sort:	H	old Acct: N	Subitem: N	Non	Add: N									

Appendix C Exhibits 1 Through 4 Exploration Plans









Bered ck exposed at margin of spillway	
40°	
Three 71/" openings to	
6" drain pipes in base of flip	
Approximate Boring	3
SB-1 Location	<mark>.</mark>
ious Repair:	alde.
, depth typically $\leq \frac{1}{2}$ " unless otherwise noted:	
e & Dip / Bedding: 45° / ~ 60°	
oto basemap provided by MCWRA Irawing provided did not include complete detail of constructio gly, locations presented here should be considered approxima of observations should be considered approximate, no obser e surveyed. tion joints between wall panels are not shown except where o	on joint locations. ate/schematic. vations presented bservations are noted.
FIELD OBSERVATIONS	EXHIBIT 4

AMENDMENT No. 3 TO AGREEMENT BY AND BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY & McMILLEN JACOBS ASSOCIATES

THIS AMENDMENT No. 3 is made to the PROFESSIONAL SERVICES AGREEMENT ("Agreement") for the provision of preliminary engineering and design services for the Interlake Tunnel and San Antonio Spillway Modification by and between **McMillen Jacobs Associates**, hereinafter "CONTRACTOR", and the Monterey County Water Resources, a California flood control and water resources agency, hereinafter referred to as "Agency", dated March 16, 2017.

WHEREAS, the Agency and CONTRACTOR wish to modify and extend the term of this Agreement to March 16, 2021; and

WHEREAS, the overall budget for the Agreement after this Amendment No. 3 will remain the same as before this Amendment No. 3.

NOW THEREFORE, the Agency and CONTRACTOR hereby agree to amend the Agreement in the following manner:

Section 3.1 of the Agreement is amended to read as follows:

The term of this Agreement shall begin on March 16, 2017 by CONTRACTOR and Agency, and will terminate on March 16, 2021, unless earlier terminated as provided herein.

Except as provided herein, all remaining terms, conditions and provisions of the Agreement are unchanged and unaffected by this AMENDMENT No. 3 and shall continue in full force and effect as set forth in the Agreement.

A copy of this AMENDMENT No. 3, shall be attached to the original Agreement dated March 16, 2017.

This space left blank intentionally

IN WITNESS WHEREOF, the parties have executed this AMENDMENT No. 3 on the day and year written below.

MONTEREY COUNTY WATER RESOURCES AGENCY

By:

General Manager

Dated: E-signed 5/20/2020

Approved as to Fiscal Provisions:

BMousa

Deputy Auditor/Controller

CONTRACTOR

Bv

Signature of Chair, President, or Vice-President

Marcus Emmons, Director of Operations, VP Printed Name and Title

Dated: May 14, 2020

Michael Manwarny

By:

(Signature of Secretary, Asst. Secretary, CFO, Treasurer or Asst. Treasurer)*

Michael Manwaring, Corp. Secretary, McMillen LLC Printed Name and Title

Risk Management

Approved as to Liability Provisions:

05/18/2020

Dated: May 15, 2020

Dated:

Dated:

Approved as to Form:

s/Kelly L. Donlon

Deputy County Counsel

Dated: 5/15/20

*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

AMENDMENT No. 2 TO AGREEMENT BY AND BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY & McMILLEN JACOBS ASSOCIATES

THIS AMENDMENT No. 2 is made to the PROFESSIONAL SERVICES AGREEMENT ("Agreement") for the provision of preliminary engineering and design services for the Interlake Tunnel and San Antonio Spillway Modification by and between McMillen Jacobs Associates, hereinafter "CONTRACTOR", and the Monterey County Water Resources, a California flood control and water resources agency, hereinafter referred to as "Agency", dated March 16, 2017.

WHEREAS, the Agency and CONTRACTOR wish to modify and extend the term of this Agreement to March 16, 2020; and

WHEREAS, the overall budget for the Agreement after this Amendment No. 2 will remain the same as before this Amendment No. 2.

NOW THEREFORE, the Agency and CONTRACTOR hereby agree to amend the Agreement in the following manner:

Section 3.1 of the Agreement is amended to read as follows:

The term of this Agreement shall begin on March 16, 2017 by CONTRACTOR and Agency, and will terminate on March 16, 2020, unless earlier terminated as provided herein.

Section 4.7 of this Agreement is amended to revise Exhibit B-1 as follows:

Exhibit B-1 PAYMENT FOR SERVICES is amended to include Exhibit B-1A MCMILLEN JACOBS ASSOCIATES BILLING RATE SHEET

Except as provided herein, all remaining terms, conditions and provisions of the Agreement are unchanged and unaffected by this AMENDMENT No. 2 and shall continue in full force and effect as set forth in the Agreement.

A copy of this AMENDMENT No. 2, shall be attached to the original Agreement dated March 16, 2017.

This space left blank intentionally

IN WITNESS WHEREOF, the parties have executed this AMENDMENT No. 2 on the day and year written below.

MONTEREY COUNTY WATER RESOURCES AGENCY By: General Man Dated: Approved as to F scal Provisions: Deputy Auditor/Controller Dated:

Approved as to Liability Provisions:

Risk Management

Dated:

Approved as to Form: Deputy County Counsel Dated:

CONTRACTOR

mail menulen Bv:

Signature of Chair, President, or Vice-President

Mara Mc Millen . Printed Name and Title

Dated: 6-17-19

Bv:

(Signature of Secretary, Asst. Secretary, CFO, Treasurer or Asst. Treasurer)*

Marcus MMODS, Corporate Secretary Printed Name and Title

Dated:

*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

EXHIBIT B-1A

McMillen Jacobs Associates Billing Rate Sheet

Employee	Title	2016-2017 Rates	2019-2020 Rates
Mort McMillen	Principle	\$240.00	\$254.40
John Kaplin	Principle	\$240.00	\$254.40
Dave Crouthamel	Principle	\$240.00	\$254.40
Troy Page	Sr. Cost Estimator	\$240.00	\$254.40
Mark Merklein	Sr. Structural Engineer	\$230.00	\$243.80
Tom Pennington	Lead Associate	\$210.00	\$222.60
Don Jarrett	Sr. Mechanical Engineer	\$205.00	\$217.30
Matt Lawson	Consultant I&C Engineer	\$185.00	\$196.10
Kyle DeSomber	Sr. Mechanical Engineer	\$185.00	\$196.10
John Bakken	Sr. Electrical Engineer	\$185.00	\$196.10
Christopher Curtis	Sr. Electrical Engineer	\$185.00	\$196.10
Jeff Heindel	Sr. Biologist	\$184.00	\$195.04
Bryan Duevel	Sr. Geotechnical Engineer	\$175.00	\$185.50
Paul Richards	Sr. Geotechnical Engineer	\$175.00	\$185.50
Vincent Autier	Sr. Civil Engineer (Fisheries)	\$175.00	\$185.50
Randy Presleigh	Consultant Structural Engineer	\$175.00	\$185.50
Jodi Burns	Consultant Civil Engineer	\$120.00	\$174.00
Nathan Cox	Sr. Hydraulic Engineer	\$150.00	\$159.00
Ron Wood	Sr. CAD Designer	\$131.00	\$138.86
Kevin Jensen	Hydraulic Engineer	\$130.00	\$137.80
Marci Mickelsen	Accountant II	\$126.00	\$133.56
Sean Ellenson	Mechanical Engineer	\$121.00	\$128.26
Zack Autin	Structural Engineer	\$115.00	\$121.90
Barb Whiton	Tech Editor	\$152.00	\$120.00
Mitch Skelton	Electrical Engineer	\$110.00	\$116.60
Jakob Walter	Tunnel Engineer	\$110.00	\$116.60
	CAD Designer	\$110.00	\$116.60

ROUTING FORM – RQN #: 444	Date: 8/24/2018
	BOARD REPORT FOR PRE-APPROVAL
Vendor Name: McMillen Jabobs Associates Title/Brief Description of Document: Amendment N Originating Dept.: Water Resources Agency Dept This Agreement or Amendment requires Board Ap	lo. 1 Contact WITH Phone #: Jessell Fenley, Ext: 4896 proval: Yes No 🔀
RQNSA – Standard Agreement	RQNNS – Non–Standard Agreement
RQNIT – ITD Standard Agreement	RQNIN – ITD Non-Standard Agreement
RQNPB – Pre-Board Standard Agreement	Non-Standard Board Agreement (Not to be tracked within RQN)
Insurance & Endorsement Current	

Ead	RC h Approving Authority is requested the	DUTING AND to forward the order listed he	APPROVALS* Service Contract to the next Approv rein. Thank you.	ing Authority in
	Approving Authority:	Approval Initials	Comments:	Date Reviewed
1st	ITD(for all ITD related contracts)			
2nd	County Counsel (required)	XID		BRAID
3rd	Risk Management (non-standard insurance and/or indemnity provisions)	0.0	Not Applicable	
4th	Auditor-Controller (required)	21		3/21/18
5th	Contracts/Purchasing (required)		Please forward to CAO Office Juan Lopez. Thank you	8130115
	Return to Originating Department Instructions		Jessell Fenley – ext: 4896 Thank you.	

* In the event that one of the approving authorities has an issue with the document and will not sign, the document shall be returned immediately to the originating department's key contact person identified herein along with a brief written explanation regarding the issue. Once that issue is corrected, the originating department shall restart the routing process again from the beginning by resubmitting the document through the approval process. The original Routing Form should be included for reference.

MYA <u>#:</u> *

Revised 20151217. Ver10

VDR & Non-Resident State Forms Verified

AMENDMENT No. 1 TO AGREEMENT BY AND BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY & McMILLEN JACOBS ASSOCIATES

THIS AMENDMENT No. 1 is made to the PROFESSIONAL SERVICES AGREEMENT (AGREEMENT) for the provision of preliminary engineering and design services for the Inter Lake Tunnel and San Antonio Spillway Modification by and between **McMillen Jacobs Associates**, hereinafter "CONTRACTOR", and the Monterey County Water Resources, a California flood control and water resources agency, hereinafter referred to as "Agency", dated March 16, 2017.

WHEREAS, the Agency and CONTRACTOR wish to modify and adjust the scope of work to provide a Subsurface Investigation of the San Antonio Dam and Additional Geotechnical Borings for the Interlake Tunnel and to fund this modified scope by deleting or adjusting other budgeted scope of services in the AGREEMENT; and

WHEREAS, the overall budget for the Agreement after this Amendment No. 1 will remain the same as before this Amendment No. 1; and

WHEREAS, all of the tasks called for by the Agreement, as modified and adjusted by this Amendment No. 1, are reflected in a new Exhibit B (San Antonio Spillway Final Design), as described below.

NOW THEREFORE, the Agency and CONTRACTOR hereby agree to amend the AGREEMENT in the following manner:

Section 1. Section 1.1 of the Agreement is amended by the following items at the end of the list of documents:

Amendment No. 1 to Agreement by and between Monterey County Water Resources Agency and McMillen Jacobs Associates - Exhibit Amendment 1.

Section 2. Exhibit B to the Agreement is superseded by EXHIBIT B-1 - PAYMENT FOR SERVICES – (As modified and amended by Amendment No. 1 to the Agreement). A copy of Exhibit B-1 is attached to this Amendment No. 1.

Section 3. Except as provided herein, all remaining terms, conditions and provisions of the AGREEMENT are unchanged and unaffected by this AMENDMENT No. 1 and shall continue in full force and effect as set forth in the AGREEMENT.

A copy of this AMENDMENT No. 1, together with Exhibit B-1, shall be attached to the original AGREEMENT dated March 16, 2017.

This space left blank intentionally

IN WITNESS WHEREOF, the parties have executed this AMENDMENT No. 1on the last day and year written below.

	MONTEREY COUNTY WATER RESOURCES AGENCY	CONTRACTOR
-	By: David E. Chardavoyne General Manager	By: Mark McMule Signature of Chair, President, or Vice-President
	Dated: 30 August 2017 Approved as to Fiscal Provisions: Deputy Auditor/Controller	Mara McMillen, President Printed Name and Title Dated: Alegust 15, 2018
T	Dated: 3/15 7/24/18	By: / V/12. 4/V/N (Signature of Secretary, Asst. Secretary, CFO, Treasurer or Asst. Treasurer) *
	Approved as to Liability Provisions:	Morton D. McMillen, Lecului SeVP Printed Name and Title
	Risk Management	Dated: Algust 15,2016
-	Approved as to Form: Deputy County Counsel Dated: BR91B	

*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

ATTACHMENT:

EXHIBIT B-1 - PAYMENT FOR SERVICES – (As modified and amended by Amendment No. 1 to the Agreement)

Project:	Interlake Tunnel Final Design	
Task	Description	Total Amount
1	Project Management and Team Coordination	
1.1	Prepare project work plan	\$7,520
1.2	Establish and maintain budget and schedule control measures	\$19,040
1.3	Develop & monthly design & bidding phase project schedule updates	\$18,080
1.4	Develop planning level construction phase schedule	\$15,120
1.5	Develop & monthly updates of project capital cost estimate	\$34,440
1.6	Monthly progress reporting for schedule and budget	\$23,040
1.7	Prepare / submit invoicing	\$17,568
1.8	Develop / utilize project design file system for Project Team	\$8,932
1.9	Develop / maintain design QC system	\$17,200
1.10	Arrange / conduct team / onsite / online meetings (18)	\$121,200
1.11	Workshop planning and presentations (see individual scope items)	
1.12	Participate in Project's executive leadership team weekly meetings	\$58,240
Task 1: Project Mai	nagement and Team Coordination	\$340,380
2a	Preliminary Engineering - Conceptual Design Review	
2a.1	Preliminary Engineering Kickoff Meeting / Workshop	\$16,741
2a.2	Review / Develop Comments and / or Alternatives to Hollenbeck TM	\$18,904
2a.3	Present to MCWRA / Meeting	\$8,893
2a.4	QA/QC	\$3,840
Task 2a: Prelimina	ry Engineering - Conceptual Design Review	\$48,378 \$57,470
2b	Preliminary Engineering - Site Survey	
2b.1	Develop Site Survey Work Plan	\$1,840
2b.2	Establish control, topo survey of tunnel alignment and I/O structs.	\$71,354
2b.3	Assist MCWRA with ROW support	\$11,736
2b.4	QA/QC	\$1,472
Task 2b: Preliminar	y Engineering - Site Survey	\$86,402 \$0
2c	Preliminary Engineering - Geotechnical Investigation Program	
2c.1	Develop Geotechnical Exploration, Testing, Reporting Plan	\$16,440

2c.2	Meet with MCWRA, DSOD, FERC	\$7,945
	Perform Geotechnical Field Exploration, Lab Testing,	
2c.3	Report	\$403,198
2c.4	Draft Geotechnical Data Report (GDR)	\$37,056
2c.5	Final Geotechnical Data Report (GDR)	\$13,982
2c.6	Draft Interpretive Baseline Report (GIR)	\$24,096
2c.7	Final Geotechnical Interpretive Report (GIR)	\$11,758
2c.8	QA/QC	\$12,920
Task 2c: Preliminar	y Engineering - Geotechnical Investigation Program	\$527,395
24	Preliminary Engineering - Design Criteria	
20	Droft Design Criteria Memorandum	\$24 615
20.1	Review Meeting w/ MCWRA - Draft Memorandum	φ21,010
2d.2	Comments	\$5,532
2d.3	Final Design Criteria Memorandum	\$9,195
2d.4	QA/QC	\$1,920
Taali Odi Dealiminan	Engineering Design Criteria Memorandum	\$41, 262
Task 20: Preliminary	Engineering - Design Criteria Memorandum	\$32,170
2e	Preliminary Engineering - Report (30% Design Level)	
2e.1	Draft Preliminary Engineering Report	\$66,188
	Review Meeting w/ MCWRA - Draft Preliminary	00 400
2e.2	Engineering Report	\$0,432
2e.3	Final Preliminary Engineering Report	\$58,034
	Identify and present to MCWRA recommendation for eqpt	\$6.800
2e.4	proc package	\$0,000
2e.5	Hydraulic Analysis/ Reservoir Routing / Physical Model	\$1.020
2e.6	QA/QC	\$141 374
Task 2e: Preliminar	y Engineering - Report (30% Design Lever)	<i><i><i></i></i></i>
3	Design-Build Documents (Incl PS&E)	\$262 402
3.1	50% Design-Build Documents (Incl PS&E)	\$202,492
3.2	Review Meeting w/ MCWRA - 50% D-B Docs	\$11,129
3.3	75% Design-Build Documents (Incl PS&E)	\$216,192
3.4	Draft Geotechnical Baseline Report (GBR)	\$15,233
3.5	Review Meeting w/ MCWRA - 75% D-B Docs	\$10,084
3.6	100% Design-Build Documents (Incl PS&E)	\$150,857
3.7	Final Geotechnical Baseline Report (GBR)	\$9,188
3.8	Review Meeting w/ MCWRA - 100% D-B Docs)	\$11,044
3.9	Final, Issue-For-Bid (RFP) Documents	\$79,780
3.10	Hydraulic Analysis/ Reservoir Routing / Physical Model	\$20,704
3.11	Support MCWRA in electrical utility applications for I/O facilities	\$6,600
3.12	Coordinate w/ building & planning dept. Mont/SLO Counties plan check	\$14,120
0.40	Provide prep of tech docs and operations to supt. Envir.	\$14 584
3.13		\$28.800
3.14	QA/QU	\$850 807
Task 3: Design-Bu		\$000,007
4	Engineer's Report	¢10 150
4.1	Draft Project Description	\$10,458

Amendment No. 1 to Agreement with McMillen Jacobs Associates

4.2	Draft Assessment Methodology	\$108,408
4.3	Review Meeting with MCWRA - Draft Engineer's Report	\$4,845
4.4	Pre-Final Project Description	\$16,137
4.5	Pre-Final Assessment Methodology	\$9,588
4.6	Review Meeting with MCWRA - Final Engineer's Report	\$4,845
4.7	Final Engineer's Report (Incl Project Description and Assess. Meth.)	\$19,894
4.8	Assist MCWRA and Program Manager with Outreach Mtg. Exhibits	\$9,664
4.9	QA/QC	\$3,840
Task 4: Engineer's F	Report	\$195,679
5	Bidding Phase Services	
5.1	Respond to technical questions	\$12,992
5.2	Prepare addenda to RFP	\$9,060
5.3	Assist MCWRA with proposal evaluations	\$14,224
5.4	Pre-Bid Site Visit	\$3,760
5.5	QA/QC	\$3,840
Task 5: Bidding Phase Services		\$43,876 \$21,131
6	EIS Support	
6.1	Kickoff Meeting	\$5,640
6.2	Assist in Developing Project Description	\$4,720
6.3	Prepare Engineering Support Documents for Alternatives	\$30,448
6.4	Assist in Developing EIS Documents	\$13,552
6.5	Review Draft EIS	\$7,520
6.6	Coordination Meetings	\$14,960
6.7	General EIS Support	\$30,960
Task 6: EIS Suppor	t	\$107,800 \$60,747
7	General Engineering Support	
7.1	Review and Analysis Groundwater Data	\$4,124
7.2	Develop Alternative Gate Shaft Design	\$58,440
7.3	Optimize Tunnel Design	\$62,800
7.4	Optimize Intake Design	\$63,380
Task 7: General En	gineering Support	\$188,744
Task 8: Additional	Geotechnical Field Exploration and Testing	\$266,200
TOTAL ALL TASKS		\$2,572,097

OP	Optional Tasks	
OP.1	Right-of-Way (detailed exhibit development)	\$92,000
OP.2	Physical Hydraulic Model of Energy Dissipation Structure	\$110,000
OP.4	Reservoir Modeling for Prop 218 Benefit Assessment	\$60,000
TOTAL OPTIONAL TASKS		

Project:	Final Design	
Task	Description	Total Amount
1	Evaluate Spillway Alternatives	
1.1	Data Collection and Review	\$9,694
1.2	Prepare Geotech & Survey Workplans	\$16,356
1.3	Field Workplan Review / Approval	\$8,042
1.4	Survey / Mapping	\$32,704
1.5	Geotechnical Investigation & Report	\$167,628
1.6	Preliminary Gate Alternatives & Hydraulic Capacity	\$25,000
1.7	PMF Routing Update	\$16,064
1.8	Structural / Seismic Capacity of Training Walls	\$17,128
1.9	Modification Alts - Conceptual Design & Cost Estimate	\$40,368
1.10	Review Workshop with DSOD	\$11,538
1.11	Draft Alternatives Technical Memorandum	\$18,444
1.12	Review	\$3,824
1.13	Finalize Alternative Technical Memorandum	\$9,730
1.15		
Task 1: Evaluate Spillway Alternatives		\$376,520
2	Spillway Hydraulic Design	
2.1	Draft Updated PMF Routing Technical Memorandum	\$17,036
2.2	Review	\$4,576
2.3	Final Updated PMF Routing Technical Memorandum	\$7,600
2.4	Hydraulic Analysis	\$34,520
2.5	Workplan / Procurement of Physical Model Study	\$10,192
2.6	Physical Model Study / Report	\$259,500
2.7	Draft Hydraulic Design Technical Memorandum	\$17,788
2.8	Review	\$3,824
2.9	Final Hydraulic Design Technical Memorandum	\$7,934
2.10		
Task 2: Spillway Hydraulic Design		\$362,970 \$93,278
3	Embankment Stability Evaluation	
3.1	Review / Update Prior Stability Analyses	\$43,032
3.2	Draft Stability Analysis Technical Memorandum	\$24,468
3.3	Review	\$3,824
3.4	Final	\$10,930
3.5		
Task 3: Embankmen	t Stability Evaluation	\$82,254

6

(Interlake Tunnel) San Antonio Spillway

4	Preliminary Design (30%)	
4.1	30% Drawings and AACE Class 4 Cost Opinion	\$85,260
4.1A	30% Electrical (McMillen Jacobs Assoc)	\$50,000
4.2	Draft Design Criteria Technical Memorandum	\$31,534
4.3	Review	\$8,950
4.4	NA	
Task 4: Preliminary D	esign (30%)	\$175,744
5	Final Design	
5.1	60% PS&E (AACE Class 3 Est; Outline Specs)	\$77,708
5.0	Basis of Design Technical Memorandum (Engineer's	\$35 100
5.2	60% Dosign Review	\$9,500
5.5	00% Design Review	\$81,356
5.4	50% PS&E (Opdated AACE Class 5)	<i></i>
5.5	Rept)	\$18,736
5.6	Draft Bid / Contract Documents	\$38,764
		\$9,500
5.7	90% Design Review	\$6,062
5.8	100% PS&E for DSOD Review/Approval	\$31,000
5.8A	Final Electrical Design (McMillen Jacobs Associates)	\$95,000
5.9	Finalize Approved Drawings & Specifications	\$16,564
5.10	Finalize Bid/Contract Documents	\$14,548 \$128,436
Task 5: Final Design		\$362,226
6	DSOD Review & Approval	
6.1	Preliminary Design Workshop & Response	\$14,566
6.2	60% Design Workshop & Response	\$14,566
6.3	90% Design Review Meeting & Response	\$14,566
6.4	100% Review Meeting & Response	\$14,566
6.5		
Task 6: DSOD Review	v & Approval	\$58,264
7 Not Defined		
7.1		· · · · · · · · · · · · · · · · · · ·
Task 7: Not Defined		
8	EIS Permitting Support	
8.1	Project Description Assistance (80 hr allowance)	\$16,072
8.2	Participate in Public Meetings (80 hr allowance)	\$19,120
8.2	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance)	\$19,120 \$16,072
8.2 8.3 8.4	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance)	\$19,120 \$16,072
8.2 8.3 8.4 Task 8: EIS Permittin	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ig Support	\$19,120 \$16,072 \$51,264
8.2 8.3 8.4 Task 8: EIS Permittin	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ig Support Construction Procurement Support	\$19,120 \$16,072 \$51,264
8.2 8.3 8.4 Task 8: EIS Permittin 9 9.1	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ig Support Construction Procurement Support Contract Document Repro/Distribution	\$19,120 \$16,072 \$51,264 - \$18,412
8.2 8.3 8.4 Task 8: EIS Permittin 9 9.1 9.1 9.2	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ing Support Construction Procurement Support Contract Document Repro/Distribution Bid Advertisement Support	\$19,120 \$16,072 \$51,264 - <u>\$18,412</u> \$4,664
8.2 8.3 8.4 Task 8: EIS Permittin 9 9.1 9.2 9.3	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ing Support Construction Procurement Support Contract Document Repro/Distribution Bid Advertisement Support Pre-Bid Meeting	\$19,120 \$16,072 \$51,264 - <u>\$18,412</u> \$4,664 \$6,242
8.2 8.3 8.4 Task 8: EIS Permittin 9 9.1 9.1 9.2 9.3 9.4	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ing Support Construction Procurement Support Contract Document Repro/Distribution Bid Advertisement Support Pre-Bid Meeting Respond to Bidder Questions	\$19,120 \$16,072 \$51,264 - <u>\$18,412</u> <u>\$4,664</u> <u>\$6,242</u> \$13,808
8.2 8.3 8.4 Task 8: EIS Permittin 9 9.1 9.1 9.2 9.3 9.4 9.4 9.5	Participate in Public Meetings (80 hr allowance) Construction Impact Support (80 hr allowance) Ing Support Construction Procurement Support Contract Document Repro/Distribution Bid Advertisement Support Pre-Bid Meeting Respond to Bidder Questions Addenda Support	\$19,120 \$16,072 \$51,264 - <u>\$18,412</u> \$4,664 \$6,242 \$13,808 \$21,452

Amendment No. 1 to Agreement with McMillen Jacobs Associates

9.7	Bid Tab/Evaluation	\$13,056
9.8	-	-
Task 9: Construction Procurement Support		\$84,340 \$0
10	Project Management	
10.1	Project setup, work plan	\$9,592
10.2	QA/QC, staffing, budget, schedule control	\$40,864
10.3	Invoicing, cash flow, status reporting	\$33,084
10.4	Project Meetings, management, coordination	\$63,360
10.5		
Task 10: Project Management		\$146,900
Task 11: San Antonio Dam Subsurface Investigation		\$420,242
TOTAL ALL TASKS		\$1,766,692

AGREEMENT BETWEEN MCWRA AND CONTRACTOR

This AGREEMENT is made and entered into by and between the Monterey County Water Resources Agency, a public agency created pursuant to the Monterey County Water Resources Agency Act (Cal. Water Code, Appendix Chap. 52.), hereinafter referred to as "MCWRA", and McMillen Jacobs Associates, hereinafter referred to as "CONTRACTOR."

RECITALS

WHEREAS, MCWRA has invited proposals through the Request for Proposals (RFP #10531) for Preliminary Engineering and Design Services for the Interlake Tunnel and Spillway Modification in accordance with the specifications set forth in this AGREEMENT; and

WHEREAS, CONTRACTOR has submitted a responsive and responsible proposal to perform such services; and

WHEREAS, CONTRACTOR has the expertise and capabilities necessary to provide the services requested.

NOW THEREFORE, MCWRA and CONTRACTOR, for the consideration hereinafter named, agree as follows:

1.0 PERFORMANCE OF THE AGREEMENT

1.1 After consideration and evaluation of the CONTRACTOR'S proposal, the MCWRA hereby engages CONTRACTOR to provide the services set forth in RFP #10531 and in this AGREEMENT on the terms and conditions contained herein and in RFP #10531. The intent of this AGREEMENT is to summarize the contractual obligations of the parties. The component parts of this AGREEMENT include the following:

This AGREEMENT including all its attachments, Exhibits and Appendix RFP #10531Addenda #1, 2,3,4,5 and 6; and RFP #10531 issued March 30, 2015 including all attachments and exhibits CONTRACTOR'S Proposal dated June 5, 2015, Payment and Performance Bonds Certificate of Insurance Additional Insured Endorsements

1.2 All of the above-referenced contract documents are intended to be complementary. Work required by one of the above-referenced contract documents and not by others shall be done as if required by all. In the event of a conflict between or among component parts of the contract, the contract documents shall be construed in the following order: AGREEMENT including all Attachments, Exhibits and Appendix, RFP #10531 Addenda # 1,2,3,4,5 and 6, RFP #10531 including all attachments and exhibits, Bonds, Certificate of Insurance, and Additional Insured Endorsements.

- 1.3 CONTRACTOR warrants that CONTRACTOR and CONTRACTOR's agents, employees, and subcontractors performing services under this AGREEMENT are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required under this AGREEMENT and are not employees of the COUNTY or MCWRA, nor immediate family of an employee of the COUNTY or MCWRA.
- 1.4 CONTRACTOR, its agents, employees, and subcontractors shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this AGREEMENT that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.
 - 1.4.1 CONTRACTOR must maintain all licenses throughout the term of the AGREEMENT.
- 1.5 CONTRACTOR shall furnish all materials, equipment, and personnel necessary to carry out the terms of this AGREEMENT, except as otherwise specified in this AGREEMENT. CONTRACTOR shall not use MCWRA premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations under this AGREEMENT.

[Subsections 1.6 through 1.8 BLANK.]

- 1.9 MCWRA shall furnish to CONTRACTOR all applicable information and technical data in MCWRA'S possession or control reasonably required for the proper performance of the Services. CONTRACTOR shall exercise professional due care when relying upon the information and data provided by MCWRA or obtained from generally acceptable sources within the industry.
- 1.10 CONTRACTOR shall develop the cost and schedule opinions with a standard of care that is consistent with industry supported cost estimating and scheduling protocols using professional cost estimating resources. Universally accepted business analytical means will be used to model the probable range of costs and corresponding confidence levels under assumptions of uncertainty to support decision making.

2.0 SCOPE OF SERVICE

See Exhibit A – Scope of Work

3.0 TERM OF AGREEMENT

- 3.1 The term of the AGREEMENT(s) will be for a period of two (2) years with the option to extend the AGREEMENT for three (3) additional one (1) year periods for a maximum agreement of five (5) years.
 - 3.1.1 MCWRA is not required to state a reason if it elects not to renew.
- 3.2 If the AGREEMENT includes options for renewal or extension, CONTRACTOR must commence negotiations for any desired rate changes a minimum of ninety days (90) prior to the expiration of the AGREEMENT.
 - 3.2.1 Both parties shall agree upon rate extension(s) or changes in writing.
- 3.3 The AGREEMENT shall contain a clause that provides that MCWRA reserves the right to cancel the AGREEMENT, or any extension of the AGREEMENT, without cause, with a thirty day (30) written notice, or immediately with cause.
- 3.4 This AGREEMENT is contingent upon the successful funding of a grant from the California Department of Water Resources for the Interlake Tunnel project in an adequate amount as determined solely by MCWRA.

4.0 COMPENSATION AND PAYMENTS

- 4.1 It is mutually understood and agreed by both parties that CONTRACTOR shall be compensated under this AGREEMENT in accordance with the pricing sheet attached hereto.
- 4.2 Prices shall remain firm for the initial term of this AGREEMENT and, thereafter, may be adjusted annually as provided in this paragraph. MCWRA does not guarantee any minimum or maximum amount of dollars to be spent under this AGREEMENT.
- 4.3 Negotiations for rate changes shall be commenced, by CONTRACTOR, a minimum of ninety days (90) prior to the expiration of this AGREEMENT.
- 4.4 Any discount offered by the CONTRACTOR must allow for payment after receipt and acceptance of services, material or equipment and correct invoice, whichever is later. In no case will a discount be considered that requires payment in less than 30 days.
- 4.5 CONTRACTOR shall levy no additional fees or surcharges of any kind during the term of this AGREEMENT without first obtaining approval from MCWRA in writing.
- 4.6 <u>Tax:</u>
 - 4.6.1 Pricing as per this AGREEMENT is inclusive of all applicable taxes.
 - 4.6.2 MCWRA is registered with the Internal Revenue Service, San Francisco office, and registration number 94-6000524. The MCWRA is exempt from Federal Transportation Tax; an exemption certificate is not required where shipping documents show MCWRA as consignee.
- 4.7 Payments to CONTRACTOR; maximum liability.

Subject to the limitations set forth herein, MCWRA shall pay to CONTRACTOR the amounts provided in Exhibit B, up to the total amount of TWO MILLION FIVE HUNDRED SEVENTY TWO THOUSAND SIX HUNDERED THIRTY FIVE dollars (\$2,572,097) for Interlake Tunnel design (inclusive of all costs and expenses, including sub-consultants) and ONE MILLION SEVEN HUNDRED SIXTY SIX THOUSAND SIX HUNDERED NINETY TWO Dollars (\$1,766,692) for the San Antonio Spillway Modification design (inclusive of all costs and expenses, including sub-consultants). Optional Tasks to be determined by MCWRA may be included for the maximum amount of \$262,000. The

maximum amount payable to CONTRACTOR for this Project in the aggregate is FOUR MILLION SIX HUNDRED THOUSAND SEVEN HUNDRED EIGHTY NINE dollars (\$4,600,789) inclusive of all costs and expenses, including sub-consultants.

S5.0 INVOICES AND PURCHASE ORDERS

5.1 Invoices for all services rendered per this AGREEMENT shall be billed directly to the Monterey County Water Resource Agency at the following address:

Monterey County Water Resources Agency Attn: Cathy Paladini – Finance Manager P.O. Box 930 Salinas, CA 93902

- 5.2 CONTACTOR shall reference the RFP/RFQ number on all invoices submitted to MCWRA. CONTRACTOR shall submit such invoices periodically or at the completion of services, but in any event, not later than 30 days after completion of services. The invoice shall set forth the amounts claimed by CONTRACTOR for the previous period, together with an itemized basis for the amounts claimed, and such other information pertinent to the invoice. MCWRA shall certify the invoice, either in the requested amount or in such other amount as MCWRA approves in conformity with this AGREEMENT, and shall promptly submit such invoice to the COUNTY Auditor-Controller for payment. Monterey COUNTY Auditor-Controller shall pay the amount certified within 30 days of receiving the certified invoice.
- 5.3 All COUNTY Purchase Orders issued for the AGREEMENT are valid only during the fiscal year in which they are issued (the fiscal year is defined as July 1 through June 30).
- 5.4 Unauthorized Surcharges or Fees: Invoices containing unauthorized surcharges or unauthorized fees of any kind shall be rejected by MCWRA. Surcharges and additional fees not included the AGREEMENT must be approved by MCWRA in writing via an Amendment.

6.0 DESIGN PROFESSIONAL INDEMNIFICATION

6.1 For purposes of the following indemnification provisions ("Indemnification AGREEMENT"), "design professional" has the same meaning as set forth in California Civil Code section 2782.8. If any term, provision or application of this Indemnification AGREEMENT is found to be invalid, in violation of public policy or unenforceable to any extent, such finding shall not invalidate any other term or provision of this Indemnification AGREEMENT and such other terms and provisions shall continue in full force and effect. If there is any conflict between the terms, provisions or application of this Indemnification AGREEMENT and the provisions of California Civil Code Sections 2782 or 2782.8, the broadest indemnity protection for MCWRA under this Indemnity AGREEMENT that is permitted by law shall be provided by CONTRACTOR.

6.2 Indemnification for Design Professional Services Claims:

CONTRACTOR shall indemnify, defend and hold harmless MCWRA, its governing board, directors, officers, employees, and agents against any claims that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of CONTRACTOR, its employees, subcontractors, and agents in the performance of design professional services under this AGREEMENT, excepting only liability arising from the sole negligence, active negligence or willful misconduct of MCWRA, or defect in a design furnished by MCWRA.

6.3 Indemnification for All Other Claims or Loss:

For any claim, loss, injury, damage, expense or liability other than claims arising out of CONTRACTOR's performance of design professional services under this AGREEMENT, CONTRACTOR shall indemnify, defend and hold harmless MCWRA, its governing board, directors, officers, employees, and agents against any claim for loss, injury, damage, expense or liability resulting from or alleging injury to or death of any person or loss of use of or damage to property, arising from or related to the performance of services under this AGREEMENT by CONTRACTOR, its employees, subcontractors or agents, excepting only liability arising from the sole negligence, active negligence or willful misconduct of MCWRA, or defect in a design furnished by MCWRA.

7.0 INSURANCE REQUIREMENTS

7.1 Evidence of Coverage:

- 7.1.1 Prior to commencement of this AGREEMENT, CONTRACTOR shall provide a "Certificate of Insurance" certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier shall accompany the certificate. In addition, CONTRACTOR upon request shall provide a certified copy of the policy or policies.
- 7.1.2 This verification of coverage shall be sent to the COUNTY's Contracts/Purchasing Department, unless otherwise directed. CONTRACTOR shall <u>not</u> receive a "Notice to Proceed" with the work under this AGREEMENT until it has obtained all insurance required and such, insurance has been approved by the COUNTY. This approval of insurance shall neither relieve nor decrease the liability of CONTRACTOR.
- 7.2 <u>Qualifying Insurers:</u> All coverages, except surety, shall be issued by companies which hold a current policy holder's alphabetic and financial size category rating of not less than A- VII, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by COUNTY's Purchasing Officer.
- 7.3 <u>Insurance Coverage Requirements:</u>
 - 7.3.1 Without limiting CONTRACTOR's duty to indemnify, CONTRACTOR shall maintain in effect throughout the term of this AGREEMENT a policy or policies of insurance with the following minimum limits of liability:
 - 7.3.1.1 <u>Commercial general liability insurance</u>, including but not limited to premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broadform Property Damage, Independent Contractors, Products

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and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

- 7.3.2 <u>Business automobile liability insurance</u>, covering all motor vehicles, including owned, leased, non-owned, and hired vehicles, used in providing services under this AGREEMENT, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.
- 7.3.3 <u>Workers' Compensation Insurance</u>, if CONTRACTOR employs others in the performance of this AGREEMENT, in accordance with California Labor Code section 3700 and with Employer's Liability limits not less than \$1,000,000 each person, \$1,000,000 each accident and \$1,000,000 each disease.
- 7.3.4 <u>Professional liability insurance</u>, if required for the professional services being provided, (e.g., those persons authorized by a license to engage in a business or profession regulated by the California Business and Professions Code), in the amount of not less than \$1,000,000 per claim and \$2,000,000 in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a "claims-made" basis rather than an occurrence basis, CONTRACTOR shall, upon the expiration or earlier termination of this AGREEMENT, obtain extended reporting coverage ("tail coverage") with the same liability limits. Any such tail coverage shall continue for at least three years following the expiration or earlier termination of this AGREEMENT.

7.4 Other Insurance Requirements:

- 7.4.1 All insurance required by this AGREEMENT shall be with a company acceptable to MCWRA and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this AGREEMENT, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three years following the date CONTRACTOR completes its performance of services under this AGREEMENT.
- 7.4.2 Each liability policy shall provide that MCWRA shall be given notice in writing at least thirty days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for CONTRACTOR and additional insureds with respect to claims arising from each subcontractor, if any, performing work under this AGREEMENT, or be accompanied by a certificate of insurance from each subcontractor showing each subcontractor has identical insurance coverage to the above requirements.
- 7.4.3 <u>Commercial general liability and automobile liability policies shall provide an endorsement</u> naming the MCWRA and County of Monterey, its officers, agents, and employees as Additional <u>Insureds with respect to liability arising out of the CONTRACTOR'S work, including ongoing</u> and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the MCWRA and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the <u>CONTRACTOR'S insurance. The required endorsement form for Commercial General Liability</u> Additional Insured is ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10

01 (2000). The required endorsement form for Automobile Additional Insured endorsement is ISO Form CA 20 48 02 99.

- 7.4.4 Prior to the execution of this AGREEMENT by MCWRA, CONTRACTOR shall file certificates of insurance with COUNTY's contract administrator and COUNTY's Contracts/Purchasing Division, showing that CONTRACTOR has in effect the insurance required by this AGREEMENT. CONTRACTOR shall file a new or amended certificate of insurance within five calendar days after any change is made in any insurance policy, which would alter the information on the certificate then on file. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this AGREEMENT, which shall continue in full force and effect.
- 7.4.5 CONTRACTOR shall at all times during the term of this AGREEMENT maintain in force the insurance coverage required under this AGREEMENT and shall send, without demand by MCWRA, annual certificates to COUNTY's Contract Administrator and COUNTY's Contracts/Purchasing Division. If the certificate is not received by the expiration date, MCWRA shall notify CONTRACTOR and CONTRACTOR shall have five calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by CONTRACTOR to maintain such insurance is a default of this AGREEMENT, which entitles MCWRA, at its sole discretion, to terminate this AGREEMENT immediately.

8.0 RECORDS AND CONFIDENTIALITY

8.1 <u>Confidentiality:</u> CONTRACTOR and its officers, employees, agents, and subcontractors shall comply with any and all federal, state, and local laws, which provide for the confidentiality of records and other information. CONTRACTOR shall not disclose any confidential records or other confidential information received from the MCWRA or prepared in connection with the performance of this AGREEMENT, unless MCWRA specifically permits CONTRACTOR to disclose such records or information. CONTRACTOR shall promptly transmit to MCWRA any and all requests for disclosure of any such confidential records or information. CONTRACTOR in the performance of this AGREEMENT except for the sole purpose of carrying out CONTRACTOR's obligations under this AGREEMENT.

CONTRACTOR shall not make available to the State without a confidentiality agreement, or place in the public domain, any documents that relate to, depict or describe what may be considered critical infrastructure, as defined in any law or regulation, including (without limitation) Homeland Security Presidential Directive 7, as further defined in FERC Order No. 630, issued February 21, 2003.

- 8.2 <u>MCWRA Records</u>: When this AGREEMENT expires or terminates, CONTRACTOR shall return to MCWRA any MCWRA records which CONTRACTOR used or received from MCWRA to perform services under this AGREEMENT.
- 8.3 <u>Maintenance of Records:</u> CONTRACTOR shall prepare, maintain, and preserve all reports and records that may be required by federal, state, and MCWRA rules and regulations related to services performed under this AGREEMENT.
- 8.4 Access to and Audit of Records: MCWRA shall have the right to examine, monitor and audit all records, documents, conditions, and activities of CONTRACTOR and its subcontractors related to services

provided under this AGREEMENT. The parties to this AGREEMENT may be subject, at the request of MCWRA or as part of any audit of MCWRA, to the examination and audit of the State Auditor pertaining to matters connected with the performance of this AGREEMENT for a period of three years after final payment under the AGREEMENT.

9.0 NON-DISCRIMINATION

- 9.1 During the performance of this contract, CONTRACTOR shall not unlawfully discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, age (over 40), sex, or sexual orientation. CONTRACTOR shall ensure that the evaluation and treatment of its employees and applicants for employment are free of such discrimination. CONTRACTOR shall comply with the provisions of the Fair Employment and Housing Act (Government Code, §12900, et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, §7285.0, et seq.).
- 9.2 The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, §12900, et seq., set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this AGREEMENT by reference and made a part hereof as if set forth in full.
- 9.3 CONTRACTOR shall include the non-discrimination and compliance provisions of the clause in all AGREEMENTs with subcontractors to perform work under the contract.

10.0 OVERRIDING CONTRACTOR PERFORMANCE REQUIREMENTS

- 10.1 <u>Independent Contractor</u>: CONTRACTOR shall be an independent contractor and shall not be an employee of the COUNTY or MCWRA, nor immediate family of an employee of the COUNTY or MCWRA. CONTRACTOR shall be responsible for all insurance (General Liability, Automobile, Workers' Compensation, unemployment, etc.,) and all payroll-related taxes. CONTRACTOR shall not be entitled to any employee benefits. CONTRACTOR shall control the manner and means of accomplishing the result contracted for herein.
- 10.2 <u>Non-Assignment</u>: CONTRACTOR shall not assign this contract or the work required herein without the prior written consent of MCWRA.
- 10.3 Any subcontractor shall comply with all of MCWRA and COUNTY requirements, including insurance and indemnification requirements as detailed in SAMPLE AGREEMENT.

11.0 CONFLICT OF INTEREST

11.1 CONTRACTOR covenants that it presently has no interest, and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of services required under this AGREEMENT. Without limitation, CONTRACTOR represents to and agrees with MCWRA that CONTRACTOR has no present, and will have no future, conflict of interest between providing

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MCWRA services hereunder and any other person or entity (including but not limited to any federal or state environmental or regulatory agency) which has any interest adverse or potentially adverse to MCWRA, as determined in the reasonable judgment of the Board of Supervisors of MCWRA.

11.2 CONTRACTOR agrees that any information, whether proprietary or not, made known to or discovered by it during the performance of or in connection with this AGREEMENT for MCWRA will be kept confidential and not be disclosed to any other person. CONTRACTOR agrees to immediately notify MCWRA in accordance with the Notices Section of this AGREEMENT, if it is requested to disclose any information made known to or discovered by it during the performance of or in connection with this AGREEMENT. These conflict of interest and future service provisions and limitations shall remain fully effective five (5) years after termination of services to MCWRA hereunder.

12.0 COMPLIANCE WITH APPLICABLE LAWS

- 12.1 CONTRACTOR shall keep itself informed of and in compliance with all federal, state and local laws, ordinances, regulations, and orders, including but not limited to all state and federal tax laws that may affect in any manner the Project or the performance of the Services or those engaged to perform Services under this AGREEMENT. CONTRACTOR shall procure all permits and licenses, pay all charges and fees, and give all notices required by law in the performance of the Services.
- 12.2 CONTRACTOR shall report immediately to MCWRA and the COUNTY's Contracts/Purchasing Officer, in writing, any discrepancy or inconsistency it discovers in the laws, ordinances, regulations, orders, and/or guidelines in relation to the Project of the performance of the Services.
- 12.3 All documentation prepared by CONTRACTOR shall provide for a completed project that conforms to all applicable codes, rules, regulations and guidelines that are in force at the time such documentation is prepared.

13.0 DRUG FREE WORKPLACE

13.1 CONTRACTOR and CONTRACTOR'S employees shall comply with the MCWRA'S policy of maintaining a drug free workplace. Neither CONTRACTOR nor CONTRACTOR'S employees shall unlawfully manufacture, distribute, dispense, possess or use controlled substances, as defined in 21 U.S. Code § 812, including, but not limited to, marijuana, heroin, cocaine, and amphetamines, at any MCWRA facility or work site. If CONTRACTOR or any employee of CONTRACTOR is convicted or pleads nolo contendere to a criminal drug statute violation occurring at a MCWRA facility or work site, the CONTRACTOR shall, within five days thereafter notify the head of the MCWRA department/agency for which the AGREEMENT services are performed. Violation of this provision shall constitute a material breach of this AGREEMENT.

14.0 TIME OF ESSENCE

14.1 Time is of the essence in respect to all provisions of this AGREEMENT that specify a time for performance; provided, however, that the foregoing shall not be construed to limit or deprive a party of the benefits of any grace or use period allowed in this AGREEMENT.

15.0 PERFORMANCE ASSURANCE AND WAIVER OF BREACH

- 15.1 <u>Assurance of Performance:</u> If at any time MCWRA believes CONTRACTOR may not be adequately performing its obligations under this AGREEMENT or that CONTRACTOR may fail to complete the Services as required by this AGREEMENT, MCWRA may request from CONTRACTOR prompt written assurances of performance and a written plan acceptable to MCWRA, to correct the observed deficiencies in CONTRACTOR'S performance. CONTRACTOR shall provide such written assurances and written plan within ten (10) calendar days of its receipt of MCWRA's request and shall thereafter diligently commence and fully perform such written plan. CONTRACTOR acknowledges and agrees that any failure to provide such written assurances and written plan within the required time is a material breach under this AGREEMENT. If MCWRA accepts the plan it shall issue a signed waiver.
 - 15.1.1 <u>Waiver</u>: No waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of this AGREEMENT shall be effective unless it is in writing and signed by the party waiving the breach, failure, right or remedy. No waiver of any breach, failure, right or remedy shall be deemed a waiver of any other breach, failure, right or remedy, whether or not similar, nor shall any waiver constitute a continuing waiver unless the writing so specifies.

16.0 RIGHTS AND REMEDIES OF THE MCWRA FOR DEFAULT

In the case of default by CONTRACTOR, MCWRA may procure the articles or services from other sources and may recover the loss occasioned thereby from any unpaid balance due to CONTRACTOR or by proceeding against any performance bond of CONTRACTOR, if any, or by suit against CONTRACTOR. The prices paid by MCWRA shall be considered the prevailing market price at the time such purchase(s) may be made. Inspections of deliveries or offers for deliveries that do not meet specifications shall be made at the expense of CONTRACTOR.

17.0 FORCE MAJEURE

"Force Majeure" means any cause beyond the reasonable control of a party, including but not limited to acts of God, civil or military disruption, fire, flood, riot, war, or inability due to the aforementioned causes to obtain necessary labor, materials or facilities.

If any party hereto is delayed or prevented from fulfilling its obligations under this AGREEMENT by Force Majeure, said party will not be liable under this AGREEMENT for said delay or failure, nor for damages or injuries resulting directly from the inability to perform scheduled work due to Force Majeure.

CONTRACTOR shall be granted an automatic extension of time commensurate with any delay in performing scheduled work arising from Force Majeure. CONTRACTOR agrees to resume such work within three (3) days after the Force Majeure has subsided enough to do so.

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18.0 TRAVEL REIMBURSEMENT

Travel reimbursements shall not exceed the IRS allowance rates as per COUNTY's Travel Policy. A copy of COUNTY's Travel Policy is available on the COUNTY Auditor-Controller's web site at: http://www.co.monterey.ca.us/auditor/policy.htm

19.0 NOTICES

Notices required to be given to the respective parties under this AGREEMENT shall be deemed given by any of the following means: (1) when personally delivered to MCWRA's Project Manager or to CONTRACTOR'S responsible officer; (2) when personally delivered to the party's principle place of business during normal business hours, by leaving notice with any person apparently in charge of the office and advising such person of the import and contents of the notice; (3) 24 hours after the notice is transmitted by FAX machine to the other party, at the party's FAX number specified pursuant to this AGREEMENT, provided that the party giving notice by FAX must promptly confirm receipt of the FAX by telephone to the receiving party's office; or, (4) three (3) days after the notice is deposited in the U. S. mail with first class or better postage fully prepaid, addressed to the party as indicated below.

Notices mailed or faxed to the parties shall be addressed as follows:

TO MCWRA:	TO CONTRACTOR:		
General Manager	Morton D. McMillen		
P.O. Box 930	1401 Shoreline Drive		
Salinas, CA 93902	Boise, ID 83702		
Tel. No.: (831) 755-4860	Tel. No. 208-342-4214		
FAX No.: (831) 424-7935	FAX No. 208-342-4216		
ChardavoyneDE@co.monterey.ca.us	Email mortmcmillen@mcmjac.com		

20.0 LEGAL DISPUTES

CONTRACTOR agrees that this AGREEMENT and any dispute arising from the relationship between the parties to this AGREEMENT, shall be governed and interpreted by the laws of the State of California, excluding any laws that direct the application of another jurisdiction's laws.

Any dispute that arises under or relates to this AGREEMENT (whether contract, tort, or both) shall be resolved in the Superior Court of California in Monterey County, California.

The parties agree to waive their separate rights to a trial by jury. This waiver means that the trial will be before a judge. In the event of litigation to enforce this AGREEMENT, the prevailing party shall have the right to collect from the other party its reasonable costs and necessary disbursements and reasonable attorneys' fees incurred.

Preliminary Engineering and Design Services Agreement for the Interlake Tunnel Project

-END OF AGREEMENT SECTION-

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EXHIBITS AND SIGNATURE PAGE

EXHIBIT-A SCOPE OF WORK

DESIGN SERVICES SCOPE OF WORK

A.1.0 Introduction:

The Interlake Tunnel Project and San Antonio Spillway Modification Project (collectively referred to as "Projects") are two separate and distinct projects intended to provide flood control, increase the net available water, and increase the net total storage available in Nacimiento and San Antonio Reservoirs located in San Luis Obispo and Monterey Counties respectively.

The Interlake Tunnel Project involves preparing preliminary engineering for the project design for a gravity flow water conveyance tunnel from Nacimiento Reservoir to San Antonio Reservoir. The Interlake Tunnel has been mandated by Monterey County Water Resources Agency (MCWRA) to be procured using the Design-Build methods in compliance with California Assembly Bill 155 (AB155) for the final design and construction of the project.

California Senate Bill 831 (SB 831) has directed that the San Antonio Spillway modification project be procured using Design Build methods under AB 155.

The San Antonio Spillway Modification Project consists of preliminary design for modifications to the existing spillway at San Antonio Reservoir by raising it ten feet to gain an increase of storage capacity in the San Antonio Reservoir. The San Antonio Spillway Modification Project is dependent upon the Interlake Tunnel Project, without which the spillway modification is not warranted. The San Antonio Spillway Modification involves approval from the California Department of Water Resources, Division of Safety and Dams (DSOD) and will be procured using the design-build procurement approach. The preliminary engineering work necessary for defining the scope of work for the Design-Build contract documents for the Spillway Modification must be adequate to obtain DSOD approval of the Design Build contract process and schedule, the preliminary design approach and submittal, DSOD requirements for final approval of the DB contractors final design package, or intent to approve, removing this regulatory risk from the DB contractor's scope of work.

The design services scope of work for the Projects includes all professional services and associated design engineering services necessary to prepare the documents for both projects. The Projects are currently being managed by EPC, a program management consulting firm, under contract with MCWRA to provide program management services.

A.1.0.1 Amendment of Agreement:

This Agreement, including any exhibit hereto, may be amended by mutual agreement of the parties in writing. Any such amendments, when authorized only by the General Manager, are subject to review and approval by the County Counsel, may not exceed three (3) in number, and may not increase the contract amount or significantly change the scope of the Project.

A.2.0 Objectives:

The services specified within this Scope of Work are performance-based, and the CONTRACTOR is required to identify in the proposal the specific detailed scope of work necessary to meet the following objectives of the MCWRA and the Projects as follows:

- 1) Perform design consulting services to produce preliminary design documents, specifications and contract bridging documents for the procurement of Design-Build services for the Interlake Tunnel and Spillway Modification Project in compliance with California Assembly Bill 155 (AB155).
- 2) Preparation of design and construction contract bidding documents for the design -build delivery of the San Antonio Spillway Modification Project.
- 3) Preparation of technical documents to support the draft and final EIR environmental and regulatory approval for both Projects.
- 4) Preparation of an Engineer's Report and detailed capital and operating cost estimates for the Projects to achieve 95% confidence of probable costs certified by the CONTRACTOR to support a California Proposition 218 tax assessment ballot and project finance plan.
- 5) Establish goals to design the Projects with the capital cost constraints established for each project. MCWRA Responsibilities

Work and responsibilities that will be performed by MCWRA include:

- Providing all relevant data including the conceptual design engineering analysis and reports for the tunnel and spillway work.
- Overall program direction including on-going technical review.
- Arranging project interim and permanent financing.
- Oversight of the selected Environmental Consultant performing environmental impact assessments and services in support of design of the Projects.
- Management of certain activities performed by others including the Program Management consultant.
- Community involvement and community relations not specifically included in the Scope of Work.
- Administration of all contracts and agreements relevant to the project including payment for services.
- Coordination with other public agencies.
- Acquisition of property, rights-of-way and easements for the Projects.
- Acquisition of LiDAR topographic survey information (Refer to RFP 10591)

A.3.0 Work Tasks:

The design consultant engineering firm is herein referred to as "CONTRACTOR". The Scope of Work for the CONTRACTOR services presumes that the CONTRACTOR will be an engineering firm or joint venture led by an engineering firm that will be responsible for coordination of all subcontractors that make up the team providing their specialized professional services for the proposed scope of work.

A.3.0.1Project Management and Team Coordination:

The CONTRACTOR shall provide the management and staff needed to plan, organize, direct, supervise, control and coordinate the administrative aspects of the Projects including contract

and subcontract administration, accounting, purchasing, office services, personnel administration, publications support, document and drawing control administration necessary to complete the requirements of the Scope of Work.

The CONTRACTOR shall perform the following project management duties to support the MCWRA (and the Program Manager) in the performance of the scope of work for both the Interlake Tunnel Project and the San Antonio Spillway Modification Projects:

- A.3.0.1.1 Prepare project work plan; and
- A.3.0.1.2 Diligent budget and schedule control measures for the design and bidding phases of the work; and
- A.3.0.1.3 Design the projects with the goal of staying within capital cost limitations established; and
- A.3.0.1.4 Development and monthly updates of a project schedule that includes design and bidding phase tasks; and
- A.3.0.1.5 Development of a planning level construction phase schedule to assist the MCWRA executives with management decisions; and
- A.3.0.1.6 Development and updates of a complete project capital cost estimate; and
- A.3.0.1.7 Provide monthly progress reporting in the format specified by the MCWRA, included with the submittal of monthly invoicing. Progress reporting shall include reports from the significant sub-consultant team members. Progress reports shall identify progress made, schedule assessment and update, all impacts to schedule (if any), plan for recovery of lost time on the schedule, assessment of the budget, budget overages (if any) and plan for recovery of budget overages; and
- A.3.0.1.8 Submit timely invoicing, including invoicing from sub-consultants, in the format specified by MCWRA; and
- A.3.0.1.9 Development and utilization of a project design-phase file system, and shared with the Project team for uniformity; and
- A.3.0.1.10 Develop, implement and maintain a design quality control system; and
- A.3.0.1.11 Arrange for team meetings, including on-site meetings, and on-line meetings. Online meetings shall utilize both audio and live streaming display of information; and
- A.3.0.1.12 Workshop planning and presentations associated with various scope items; and
- A.3.0.1.13 Participation in the Project's executive leadership team meetings organized by MCWRA and the Program Manager on a weekly bases, as needed, and as requested; and
- A.3.0.1.14 Coordinate the design work, operations plan and alternatives analysis with the environmental consultants retained separately by MCWRA to perform environmental clearance and permitting services for the projects; and
- A.3.0.1.15 Development of the Engineer's Report in conformance with the requirements of Proposition 218 tax assessment financing for use by MCWRA in the establishment of project financing via the Proposition 218 process; and
- A.3.0.1.16 Support MCWRA as a liaison of the Proposition 218 process with engineering cost estimates, benefit-cost evaluations, and preparation of information for release by MCWRA to the public for meetings and hearings including consideration of downstream benefits including, but not limited to Zone 2C and other areas of the Salinas Valley; and
- A.3.0.1.17 Prepare all deliverables in electronic (Microsoft Word to facilitate editing draft documents) and original software format customary of engineering design projects.

A.4.0 Design-Build Contract Documents for the Interlake Tunnel Project

- A.4.0.1 CONTRACTOR shall produce the design-build contract documents and Statement of Qualifications (SOQ) and Request for Proposal (RFP) in accordance with the requirements of AB 155 to procure a design-builder for the Interlake Tunnel Project. The CONTRACTOR's level of design shall be determined by the CONTRACTOR to achieve a certifiable 95% confidence of probable costs (anticipated to be 75% complete) before the design-build solicitation is released. The design-build RFP documents shall include the general and special provisions, general and technical requirements, the technical drawings and specifications, reference information, environmental and permitting information developed by the Environmental Consultant, and draft Design Build contract agreement.
- A.4.0.2 CONTRACTOR shall design the tunnel to be constructible within the capital cost constraints of the project taking into consideration hydraulics, alignment, environmental impact mitigation, constructability, tunnel configuration, and site conditions. The tunnel must be designed with careful consideration for geotechnical conditions and to minimize the construction impacts to property, facilities including groundwater wells, and the existing environment.
 - a) Review and evaluate conceptual design and perform preliminary design of tunnel alignment, grade, diameter and operating function to the extent that design criteria for the project can be finalized (approximately 30% design).
 - b) Work with MCWRA to confirm the initial operating criteria used as the basis for conceptual design and develop proposed operating criteria for the tunnel that is compliant with discharge requirements, operating rules, requirements and water rights for the two reservoirs.
 - c) Prepare preliminary engineering reports and presentations at 30%, 60% and 90% completion of the scope of work.
 - d) Prepare design criteria and engineering design requirements for final design of the project.
- A.4.0.3 CONTRACTOR shall review the following project elements developed during the conceptual design and provide comments and any suggested alternatives. CONTRACTOR shall work closely with MCWRA in the determination of any prescriptive aspects of the design-build documents for these elements.
 - a) The Nacimiento Intake Facility; shapes, positions, and dimensions;
 - b) Interlake Tunnel shape, alignment, and finished diameter.
 - c) The San Antonio Outlet Valve Facility; shapes, positions, and dimensions and the Energy Dissipating Structure;
 - d) Valve(s) with accumulator backup for control of the water between the two reservoirs.
 - e) Interlake Tunnel fish exclusion system.
- A.4.0.4 Identify and recommend to MCWRA, and seek approval, of any equipment procurement packages that would benefit MCWRA.
- A.4.0.5 Perform any site survey work deemed necessary by the Contractor to augment the survey work performed by MCWRA which includes but not limited to: establishment of the horizontal control for the Project (note that the horizontal control at the two lakes are based on different

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zones of the state plane coordinate system, and the coordinates between the two shall include conversion of the state plane coordinate system of the hydraulic structures at the two lakes into the same state plane coordinate system, suggesting that facilities at San Antonio use the Zone 5 coordinate system); establishment of the vertical control for the Project using the same vertical control of Nacimiento Reservoir and Dam; detailed site topographic surveys and mapping of adequate area at a scale of 1-inch equals 20-feet for all intake and outlet facility sites to facilitate detailed planning and design; plan-profile surveys and mapping of the tunnel alignment at a scale of 1-inch equals 40-feet. (Refer to RFP 10591 regarding survey data that will be collected by MCWRA's surveying consultant and made available to the Contractor.)

- A.4.0.6 Assist MCWRA as needed with support for rights-of-way, including but not limited to, the following: exhibits of legal descriptions (drafts and finals) of the parcel lines and project's rights-of-way on private properties, legal description sketches and engineering sketches that depict MCWRA's infrastructure and the rights sought on private properties, research of existing rights-of-ways by others and the depiction and presentation of those rights on the project's rights-of-way exhibits, research of existing parcel boundaries necessary to develop the project's rights-of-way exhibits. Assume that MCWRA will need to secure easements from 10 private property owners. MCWRA will process all easements with the landowners. The CONTRACTOR is requested to propose a lump sum unit cost per private property owner associated with the specified support services and include it with Attachment J Sealed Submittal of Lump Sum Proposal.
- A.4.0.7 Perform all geotechnical field exploration and laboratory analyses and reporting. Develop a geotechnical exploration, testing, and reporting plan for review and comment by MCWRA. Incorporate MCWRA comments, and provide liaison support to MCWRA with meeting and discussing the plan with the California Department of Water Resources, Division of Safety of Dams (DSOD), and Federal Energy Regulatory Commission (FERC). Incorporate DSOD and FERC comments.
- A.4.0.8 Implement the geotechnical plan. Prepare draft geotechnical data report and geotechnical interpretative report for review and comment by MCWRA. Incorporate MCWRA's comments into final versions of these documents. Prepare a draft Geotechnical Baseline Report (GBR) for the hydraulic structures and the tunnel, and submit to MCWRA for review and comment. Incorporate the comments and issue a final report.
- A.4.0.9 CONTRACTOR shall provide preparation of technical documents and operations plan to support the environmental consultants with the impact and alternatives analyses, including responses to comments and environmental and regulatory approval for the Projects.
- A.4.0.10 Prepare and submit 30%, 60% and 100% design-build documents including PS&E to MCWRA to review and comment. Incorporate MCWRA comments.
- A.4.0.11 Provide a final version of the design-build documents for use by MCWRA to process as the request for proposals.
- A.4.0.12 Support the MCWRA during the design-build request for proposal phase, including: respond to technical questions submitted by proposers to the MCWRA, prepare addenda to the request for proposals which include design modifications to the PS&E, assist the MCWRA with proposal evaluations.

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- A.4.0.13 Support the MCWRA in the application process for electrical utilities at the Nacimiento Intake Facility and San Antonio Outlet Valve Facility, and any other location that may need electrical services.
- A.4.0.14 Coordinate with the building and planning departments for the "plan check" review process of both Monterey and San Luis Obispo counties. Ascertain how the process is to be implemented by the design-builder, and specify the requirements within the design-build documents.
- A.4.0.14 Assist the MCWRA and Program Manager with preparation of outreach meeting exhibits and handouts. Assume 1 outreach meeting every 2 months over the design duration.

A.5.0 Design -Build Contract Documents for the San Antonio Spillway Modification Project

- A.5.0.1 The CONTRACTOR shall perform preliminary engineering and prepare Design-Build bidding documents for the San Antonio Spillway Modification Project. The bidding documents shall include the general and special conditions, general requirements, the technical drawings and specifications, the technical reference information, and the environmental and permitting information adequate to describe the scope of the project for the Design-Build contractor.
- A.5.02 Evaluate the upstream facilities that would be inundated as a result of the increased capacity of San Antonio Reservoir and submit in the form of a report to MCWRA.
- A.5.0.3 Identify and recommend to the MCWRA, and seek approval, of any equipment procurement packages that would benefit the MCWRA.
- A.5.0.4 Perform any site survey work deemed necessary by the Contractor to augment survey work performed by MCWRA which includes but not necessarily limited to: establishment of the horizontal control for the project using Zone 4 of the state plane coordinate system (confirm the control matches existing control at San Antonio Dam); establishment of the vertical control for the project using the same vertical control of San Antonio Dam; detailed site topographic surveys and mapping of the spillway facility at a scale of 1-inch equals 10-feet; plan-profile surveys and mapping of the spillway entrance channel and discharge chute at a scale of 1-inch equals 20-feet. (Refer to RFP 10591 regarding survey data that will be collected by MCWRA's surveying consultant and made available to the Contractor.)
- A.5.0.5 Confirm the hydraulic design of the MCWRA's proposed spillway modification, and confirm the hydrology routing of the Probable Maximum Flood (PMF) through the revised San Antonio Reservoir Spillway.
- A.5.0.6 Perform all geotechnical field exploration and laboratory analyses and reporting. Develop a geotechnical exploration, testing, and reporting plan for review and comment by the MCWRA. Incorporate MCWRA comments, and provide liaison support to MCWRA with meeting and discussing the plan with the California DSOD. Incorporate DSOD comments.
- A.5.0.7 Implement the geotechnical plan. Prepare draft geotechnical data report (GDR) and geotechnical interpretative report (GIR) for review and comment by the MCWRA. Incorporate MCWRA's comments into final versions of these documents. Provide liaison support to the

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MCWRA with meeting and discussing the GDR and GIR with the California DSOD. Incorporate DSOD comments and issue these as final.

- A.5.0.8 Perform a Value Engineering study on the 30-percent design.
- A.5.0.9 The energy loss capabilities of any San Antonio Energy Dissipating Structure shall be evaluated by use of a physical hydraulic model because it is judged to be sufficiently outside the parameters specified by the United States Bureau of Reclamations. Furthermore, identify and recommend to the MCWRA, and seek approval, of any physical hydraulic modeling deemed necessary for the performance of the other hydraulic structures. Upon approval, procure the services, perform witness testing, and issue the final report. Provide liaison support to the MCWRA reviewing the hydraulic model results with the DSOD
- A.5.5.10 Prepare physical hydraulic modeling specification, witness testing, and final report. Provide liaison support to the MCWRA with meeting and discussing the hydraulic model results with the DSOD.
- A.5.0.11 CONTRACTOR shall coordinate and provide technical documents and operations plan to support the environmental consultants throughout the design of the Projects.
- A.5.0.12 Prepare and submit 30, 60, and 90 percent design-build documents including PS&E to MCWRA for review and comment. Incorporate MCWRA comments, and provide submittal sets for DSOD review and comments. Incorporate DSOD comments.
- A.5.0.13 Prepare and submit 100-percent design-build documents including PS&E for MCWRA review and comment. Incorporate MCWRA comments and provide liaison support to the MCWRA with meeting and discussing the design with the DSOD. Incorporate DSOD comments.
- A.5.0.14 Prepare final design-build bidding documents, including PS&E for the MCWRA to submit to the MCWRA's Board of Supervisors and the MCWRA Board of Directors for approval to release for bidding.
- A.5.0.15 Support the MCWRA during the bidding phase, including: respond to technical questions submitted by bidders to the MCWRA, prepare bidding addenda which include design modifications to the PS&E, assist the MCWRA with bid tabulation evaluation, and preparation of camera-ready Conformed set of contract documents for the MCWRA's use in making award to the successful bidder.
- A.5.0.16 Support the MCWRA in the application process for electrical utilities at the San Antonio Spillway.
- A.5.0.17 Coordinate with the building and planning departments for the "plan check" review process of Monterey County.

A.6.0 Schedule

The CONTRACTOR as part of their submittal shall provide a proposed schedule of project activities and timing of the activities. The CONTRACTOR shall schedule a kick-off meeting with the MCWRA within ten (10) days after the Notice to Proceed is issued. The overall program has the following anticipated timeline schedule:

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A.6.0.1 RFP Process for Design Engineering Services:

Event	Due Date
Advertise RFP:	March 2015
Receive Proposals:	June 2015
Notice to Proceed:	December 2016

A.6.0.2 Design Engineering Services:

Survey and Geotechnical Services:	December 2016 - May 2017
Preliminary Engineering:	January 2017 – June 2017
Engineer's Report (Prop 218):	January 2016 - April 2018
Interlake Tunnel and Spillway	September 2017
Modification Design-Build Statement of	
Qualifications Solicitation:	
	1. Martin 1. 1

A.6.0.3 Other Program Schedule Activities:

Event	Due Date
Preparation of Draft EIR	October 2016 – November 2017
Final EIR approved	April 2018
Land Use Permit Applications to	March 2017
Permitting Agencies:	
Project financing closed	February 2019
Design-Build Selection Process:	September 2017 – February 2018
Notice to Proceed to Contractors	September 2018

A.7.0 Budget

- The CONTRACTOR shall provide a sealed lump sum proposal organized by task as A.7.0.1 Attachment-J to the Contract. The budget shall clearly identify costs for work associated with the Interlake Tunnel Project, and costs associated with the San Antonio Spillway Modification Project.
- A.7.0.2 The MCWRA has identified a need for diligent budget controls. The CONTRACTOR shall provide detailed discussions on the budget management and mitigation techniques used for projects of similar complexity. The discussion shall identify the role that the MCWRA and the MCWRA's Program Manager have in the budget controls process.
- A.7.0.3 The established total capital cost (inclusive of design, construction management, construction costs, and contingency) targets for the Projects are as follows:

Interlake Tunnel	\$53,500,000
San Antonio Spillway Modification	\$15,000,000

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EXHIBIT B - PAYMENT FOR SERVICES

Project:	_ Interlake Tunnel Final Design	
Task	Description	Totai Amount
1	Project Management and Team Coordination	· · · · · · · · ·
1.1	Prepare project work plan	\$7,520
1.2	Establish and maintain budget and schedule control measures	\$19,040
1.3	Develop & monthly design & bidding phase project schedule updates	\$18,080
1.4	Develop planning level construction phase schedule	\$15,120
1.5	Develop & monthly updates of project capital cost estimate	\$34,440
1.6	Monthly progress reporting for schedule and budget	\$23,040
1.7	Prepare / submit invoicing	\$17,568
1.8	Develop / utilize project design file system for Project Team	\$8,932
1.9	Develop / maintain design QC system	\$17,200
1.10	Arrange / conduct team / onsite / online meetings (18)	\$121,200
1.11	Workshop planning and presentations (see individual scope items)	
1.12	Participate in Project's executive leadership team weekly meetings	\$58,240
Task 1: Project Mar	nagement and Team Coordination	\$340,380
2a	Preliminary Engineering - Conceptual Design Review	
2a.1	Preliminary Engineering Kickoff Meeting / Workshop	\$16,741
2a.2	Review / Develop Comments and / or Alternatives to Hollenbeck TM	\$18,904
2a.3	Present to MCWRA / Meeting	\$8,893
2a.4	QA/QC	\$3,840
Task 2a: Preliminar	y Engineering - Conceptual Design Review	\$48,378
2b	Preliminary Engineering - Site Survey	
2b.1	Develop Site Survey Work Plan	\$1,840
2b.2	Establish control, topo survey of tunnel alignment and I/O structures.	\$71,354
2b.3	Assist MCWRA with ROW support	\$11,736
2b.4	QA/QC	\$1,472
Task 2b: Preliminary	/ Engineering - Site Survey	\$86,402
20	Preliminary Engineering - Geotechnical Investigation Program	
2c.1	Develop Geotechnical Exploration, Testing, Reporting Plan	\$16,440
2c.2	Meet with MCWRA, DSOD, FERC	\$7,945
2c.3	Perform Geotechnical Field Exploration, Lab Testing, Report	\$403,198

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Preliminary Engineering and Design Services Agreement for the Interlake Tunnel Project

2c.4	Draft Geotechnical Data Report (GDR)	\$37.056
2c.5	Final Geotechnical Data Report (GDR)	\$13,982
2c.6	Draft Interpretive Baseline Report (GIR)	\$24.096
2c.7	Final Geotechnical Interpretive Report (GIR)	\$11.758
2c.8	QA/QC	\$12.920
Task 2c: Prelimina	ry Engineering - Geotechnical Investigation Program	\$527,395
2d	Preliminary Engineering - Design Criteria Memorandum	
2 <u>d.1</u>	Draft Design Criteria Memorandum	\$24,615
2d.2	Review Meeting w/ MCWRA - Draft Memorandum Comments	\$5 632
2d 3	Final Design Criteria Memorandum	\$0,002
2d.4	QA/OC	<u>\$1 920</u>
Task 2d: Preliminar	y Engineering - Design Criteria Memorandum	\$41.262
29	Preliminary Engineering - Report (30% Design Level)	
2e.1	Draft Preliminary Engineering Report	\$66 188
	Review Meeting w/ MCWRA - Draft Preliminary	φου, του
26.2	Engineering Report	\$8,432
2e.3	Final Preliminary Engineering Report	\$58,034
	Identify and present to MCWRA recommendation for eqpt	
2e.4	proc package	\$6,800
26.5	Hydraulic Analysis/ Reservoir Routing / Physical Model	
29.6	QA/QC	\$1,920
Task 28: Preliminal	ry Engineering - Report (30% Design Level)	\$141,374
3	Design-Build Documents (Incl PS&E)	<u> </u>
3.1	50% Design-Build Documents (Incl PS&E)	\$262,492
3.2	Review Meeting w/ MCWRA - 50% D-B Docs	\$11,129
3.3	75% Design-Build Documents (Incl PS&E)	\$216,192
3.4	Draft Geotechnical Baseline Report (GBR)	\$15,233
3.5	Review Meeting w/ MCWRA - 75% D-B Docs	\$10,084
3.6	100% Design-Build Documents (Incl PS&E)	\$150,857
3.7	Final Geotechnical Baseline Report (GBR)	\$9,188
3.8	Review Meeting w/ MCWRA - 100% D-B Docs)	\$11,044
3.9	Final, Issue-For-Bid (RFP) Documents	\$79,780
3.10	Hydraulic Analysis/ Reservoir Routing / Physical Model	\$20,704
3.11	Support MCWRA in electrical utility applications for I/O facilities	\$6.600
3.12	Coordinate w/ building & planning dept. Mont/SLO Counties plan check	\$14,120
	Provide prep of tech docs and operations to supt. Envir.	<u> </u>
3.13	Consultant	\$14,584
3.14	QAVQC	\$28,800
ask 3: Design-Bull		\$620,807
4	Engineer's Report	
4.1	Dratt Project Description	\$18,458
4.2	Draft Assessment Methodology	\$108,408
4.3	Review Meeting with MCWRA - Draft Engineer's Report	\$4,845
4.4	Pre-Final Project Description	\$16,137

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Preliminary Engineering and Design Services Agreement for the Interlake Tunnel Project

4.5	Pre-Final Assessment Methodology	\$9,588
4.6	Review Meeting with MCWRA - Final Engineer's Report	\$4,845
4.7	Final Engineer's Report (Incl Project Description and Assess. Meth.)	\$19,894
4.8	Assist MCWRA and Program Manager with Outreach Mtg. Exhibits	\$9,664
4.9	QA/QC	\$3,840
Task 4: Engineer's	Report	\$195,679
	Bidding Phase Services	
5.1	Respond to technical questions	\$12,992
5.2	Prepare addenda to RFP	\$9,060
5.3	Assist MCWRA with proposal evaluations	\$14,224
	Pre-Bid Site Visit	\$3,760
5.5	QA/QC	\$3,840
Task 5: Bidding Pha	ise Services	\$43,876
6	EIS Support	
6.1	Kickoff Meeting	\$5,640
6,2	Assist in Developing Project Description	\$4,720
6.3	Prepare Engineering Support Documents for Alternatives	\$30,448
6.4	Assist in Developing EIS Documents	\$13,552
6.5	Review Draft EIS	\$7,520
6.6	Coordination Meetings	\$14,960
6.7	General EIS Support	\$30,960
Task 6: EIS Suppor		\$107,800
7	General Engineering Support	
7.1	Review and Analysis Groundwater Data	\$4,124
7.2	Develop Alternative Gate Shaft Design	\$58,440
7.3	Optimize Tunnel Design	\$62,800
7.4	Optimize Intake Design	\$63,380
Task 7: General Eng	Ineering Support	\$188,744
TOTAL ALL TASKS		
	an a	\$2,572,097

OP	Optional Tasks	
OP.1	Right-of-Way (detailed exhibit development)	\$92,000
OP.2	Physical Hydraulic Model of Energy Dissipation Structure	\$110,000
OP.4	Reservoir Modeling for Prop 218 Benefit Assessment	\$60,000
TOTAL OPTIONAL TASKS 262,000		

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Project:	_ Final Design	
Task	Description	Totai Amount
1	Evaluate Spillway Alternatives	
1.1	Data Collection and Review	\$9,694
1.2	Prepare Geotech & Survey Workplans	\$16,356
1.3	Field Workplan Review / Approval	\$8,042
1.4	Survey / Mapping	\$32,704
1.5	Geotechnical Investigation & Report	\$167,628
1.6	Preliminary Gate Alternatives & Hydraulic Capacity	\$25,000
1.7	PMF Routing Update	\$16,064
1.8	Structural / Seismic Capacity of Training Walls	\$17,128
1.9	Modification Alts - Conceptual Design & Cost Estimate	\$40,368
1.10	Review Workshop with DSOD	\$11,538
1.11	Draft Alternatives Technical Memorandum	\$18,444
1.12	Review	\$3,824
1.13	Finalize Alternative Technical Memorandum	\$9,730
1.15		
Task 1: Evaluate Spi	illway Alternatives	\$376,520
2	Spillway Hydraulic Design	
2.1	Draft Updated PMF Routing Technical Memorandum	\$17,036
2.2	Review	\$4,576
2.3	Final Updated PMF Routing Technical Memorandum	\$7, <u>600</u>
2.4	Hydraulic Analysis	\$34,520
2.5	Workplan / Procurement of Physical Model Study	\$10,192
2.6	Physical Model Study / Report	\$259,500
2.7	Draft Hydraulic Design Technical Memorandum	\$17,788
2.8	Review	\$3,824
2.9	Final Hydraulic Design Technical Memorandum	\$7,934
2.10		
Task 2: Spillway Hyd	hautic Design	\$362,970
3	Embankment Stability Evaluation	
3.1	Review / Update Prior Stability Analyses	\$43,032
3.2	Draft Stability Analysis Technical Memorandum	\$24,468
3.3	Review	\$3,824
3.4	Final	\$10,930
3.5		
Task 3: Embankmen	t Stability Evaluation	\$82,254
4	Preliminary Design (30%)	
4.1	30% Drawings and AACE Class 4 Cost Opinion	\$85,260
4.1A	30% Electrical (McMillen Jacobs Assoc.)	\$50,000
4.2	Draft Design Criteria Technical Memorandum	\$31,534

(Interlake Tunnel) San Antonio Spillway Final Design

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Preliminary Engineering and Design Services Agreement for the Interlake Turnel Project

4.:	3 Review	\$8,950
4,4	1 NA	
Task 4: Preliminary	Design (30%)	\$175,744
4	5 Final Design	
5,1	60% PS&E (AACE Class 3 Est; Outline Specs)	\$77,708
5.0	Basis of Design Technical Memorandum (Engineer's	\$35,100
53	60% Design Review	\$9.500
54	90% PS&F (Lindeted AACE Class 3)	\$81,356
	Final Basis of Design Technical Memorandum	\$40 TOO
5.0		\$18,736
0.0	Dran Bid / Contract Documents	\$38,764
0,7		\$9,500
5.0	100% PS&E TOF DSOD Review/Approval	\$31,660
5.8A	Final Electrical Design (McMillen Jacobs Associates)	\$95,000
5.9	Finalize Approved Drawings & Specifications	\$16,564
5.10	Finalize Bid/Contract Documents	\$14,548
Task 5: Final Design		\$428,436
	DSOD Review & Approval	
6.1	Preliminary Design Workshop & Response	\$14,566
6.2	60% Design Workshop & Response	\$14,566
6.3	90% Design Review Meeting & Response	\$14,566
6.4	100% Review Meeting & Response	\$14,566
6.5		
Task 6: DSOD Revie	w & Approval	\$58,264
7 Not Defined	······································	
7.1		
Task 7: Not Defined		
	EIS Permitting Support	
8.1	Project Description Assistance (80 hr allowance)	\$16,072
8.2	Participate in Public Meetings (80 hr allowance)	\$19,120
8.3	Construction Impact Support (80 hr allowance)	\$16,072
8.4		
Task 8: EIS Permitti	ng Support	\$51,264
9	Construction Procurement Support	
9.1	Contract Document Repro/Distribution	\$18,412
9.2	Bid Advertisement Support	\$4,664
9.3	Pre-Bid Meeting	\$6,242
9.4	Respond to Bidder Questions	\$13,808
9.5	Addenda Support	\$21,452
9.6	Bid Opening Support	\$6,706
9.7	Bid Tab/Evaluation	\$13,056
Task 9: Construction	n Procurement Support	\$84,340

Preliminary Engineering and Design Services Agreement for the Interlake Tunnel Project

10	Project Management	
10.1	Project set-up, work plan	\$9,592
10.2	QA/QC, staffing, budget, schedule control	\$40,864
10.3	Invoicing, cash flow, status reporting	\$33,084
10.4	Project Meetings, management, coordination	\$63,360
10.5		
Task 10: Project Management \$146		\$146,900
TOTAL ALL TASKS		
		\$1,766,692

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Preliminary Engineering and Design Services Agreement for the Interlake Tunnel Project

IN WITNESS WHEREOF, the MCWRA and CONTRACTOR execute this AGREEMENT as follows:

MONTEREY COUNTY WATER CONTRACTOR RESOURCES AGENCY Signature of Chair, President, or **General Manager** Vice-President Dated: 28 March MORTON D. MCMILLO 2017 Printed Name and Title Approved as to Fiscal Provisions: 113 Dated: Auditor/Controller Bv Dated: (Signature of Secretary, st. Scoretary, CFO Treasurer or Asst. Treasurer)* MCMillen, CFO/President Printed Name and Administrative Analyst 3/13/17 Dated: Dated:

Approved as to Form:

Deputy County Counsel

Dated: 3 - 16 - 17-

Agency Board of Supervisors' Board Order Number:

*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.



Before the Board of Directors of the Monterey County Water Resources Agency

County of Monterey, State of California

BOARD ORDER No.

APPROVE AMENDMENT NO. 4 TO THE PROFESSIONAL SERVICES AGREEMENT WITH MCMILLEN JACOBS ASSOCIATES FOR A TERM EXTENSION FROM MARCH 16, 2021 TO MARCH 16, 2022; AND B. AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AMENDMENT)
)
)
)))

Upon motion of Director _____, seconded by Director _____, and carried by those members present, the Board of Directors hereby:

Approves Amendment No. 4 to the Professional Services Agreement with McMillen Jacobs Associates for a term extension from March 16, 2021 to March 16, 2022; and b. Authorize the General Manager to execute the Amendment.

PASSED AND ADOPTED on this day of 2020, by the following vote, to-wit:

AYES:

NOES:

ABSENT:

BY: John Baillie, Chair Board of Directors

ATTEST:

Brent Buche General Manager



Monterey County

Board Report

Legistar File Number: WRAG 21-039

Board of Supervisors

Item No.6

Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/5/2021

Version: 1

Current Status: Agenda Ready Matter Type: WR General Agenda

Consider receiving a report on the winter storm event of 2021.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Receive a report on the winter storm event of 2021.

SUMMARY/DISCUSSION:

A significant winter storm was forecasted for the Central Coast that included high wind advisories and an atmospheric river event. The three fire burn scars from the Dolan, Carmel and River Fires, were of particular concern due to rainfall intensities with the likely potential for triggering debris flows. Estimated rainfall totals also predicted riverine and lagoon concerns for most of the waterways as well as localized flooding due to inadequate drainage systems.

On January 27, 2021, the Monterey County's County Administrative Officer issued a Proclamation of a Local Emergency for the winter storm event since it was anticipated to result in multiple significant rainfall/wind events causing damage to public infrastructure and private property within Monterey County. Additionally, the Monterey County Operational Area (EOC) was activated at a Level 2. The National Weather Service issued numerous Flash Flood Watches and Warnings for communities affected by the burn scars, high rainfall intensities, and high streamflow. Monterey County issued numerous Evacuation Warnings and Orders in response to the related advisories.

MCWRA supported the EOC activation by providing real-time rainfall and stream flow information to other County Departments, State and Federal Agencies for emergency operation decision-making. MCWRA also performed various debris clean-up and facility activities to aid in the reduction of flooding for the community.

OTHER AGENCY INVOLVEMENT:

Many Federal, State and local agencies coordinated resources during this event. Some of those include Monterey County Office of Emergency Services, Public Works, County Communications, Sherriff's Office, Libraries, Office of Education, Environmental Health, Caltrans, California Geological Survey, Cal Fire, National Weather Service, United States Geological Survey, Monterey Salinas Transit, various Fire Districts and many cities.

FINANCING:

Staff time associated with the activities described in this report may be reimbursed from FEMA due to

the local emergency declaration.

Prepared by: Shaunna Murray, Senior Water Resources Engineer, (831) 755-4860

Approved by: Brent Buche, General Manager (831) 755-4860



Monterey County

Board Report

Legistar File Number: WRAG 21-039

168 W. Alisal St., 1st Floor Salinas, CA 93901

Board of Supervisors Chambers

Item No.

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the local emergency declaration.

Prepared by: Shaunna Murray, Senior Water Resources Engineer, (831) 755-4860

Approved by: Brent Buche, General Manager (831) 755-4860



Monterey County

Board Report

Legistar File Number: WRAG 21-040

Item No.7

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/8/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

Consider recommending that the Monterey County Water Resources Agency Board of Supervisors adopt a resolution authorizing and directing the General Manager to enter into a grant agreement with the California Department of Fish and Wildlife to receive a grant of \$17 million dollars for the construction of Fish Exclusion System in conjunction with the Interlake Tunnel construction.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Recommend that the Monterey County Water Resources Agency Board of Supervisors adopt a resolution authorizing and directing the General Manager to enter into a grant agreement with the California Department of Fish and Wildlife to receive a grant of \$17 million dollars for the construction of a Fish Exclusion System in conjunction with the Interlake Tunnel construction.

SUMMARY:

The Fiscal Year 19/20 budget for the State of California included seventeen (\$17) million dollars for the construction of a Fish Exclusion System (fish screens) in the California Department of Fish and Wildlife (CDFW) budget. In order to secure these funds, MCWRA and CDFW must enter into an agreement by June 30, 2021.

DISCUSSION:

White Bass (*Marone chrysops*), native to St. Lawrence-Great Lakes, Hudson Bay and Red River Basin, and Mississippi River basins from Quebec to Manitoba and south to Louisiana are present in the Nacimiento Reservoir and have periodically been physically observed in the Nacimiento River, a tributary of the Salinas River. White Bass were introduced to Nacimiento Reservoir in 1965, but concerns about the spread of the fish during the 1970s resulted in management actions to eradicate the species in all but Nacimiento and subsequent regulatory and state code changes to preclude White Bass from any waters of California other than Nacimiento Reservoir.

White Bass are a non-native species listed by state regulation as Detrimental as they may alter/affect existing sport fisheries resulting in a shift from more preferred gamefish to a fishery dominated by White Bass. Additionally, they pose a threat to native fish species, including vulnerable steelhead trout (*Oncorhynchus mykiss*). Steelhead trout inhabiting the Salinas River Basin are part of the South-Central California Coast Evolutionary Significant Unit (SCCC-ESU) as defined by the National Marine Fisheries Service (NMFS). The NMFS listed steelhead trout in the SCCC-ESU as a federally threatened species under the Federal Endangered Species Act and CDFW is a co-manager for the SCCC-ESU.

In 2014, Monterey County Water Resources Agency staff and consultants began working to resolve the issue of potential transfer of white bass from Nacimiento Reservoir to San Antonio Reservoir via the Interlake Tunnel Project (ILT) once it is constructed. This work led to a succession of meetings with CDFW staff and the signing of a Memorandum of Agreement (MOA) in December 2018 regarding the design and construction of a Fish Exclusion System. The MOA is referenced and is an attachment to the grant agreement.

In June 2019 the budget enacted by the state of California included \$17 million dollars in CDFW's budget for the Fish Exclusion System. In order to secure these funds, MCWRA and CDFW must execute a grant agreement by June 30, 2021. CDFW, MCWRA, County Legislative Office staff and consultants have been meeting since September 2019 to finalize a grant agreement.

The attached agreement is being processed through CDFW's internal process and is expected to be finalized by June 2021. It is expected that there will be little or no changes to attached agreement in that process.

OTHER AGENCY INVOLVEMENT:

Monterey County Legislative Affairs Office, Monterey County Counsel Office, Monterey County Legislative Committee, California Department of Fish and Wildlife

FINANCING:

Seventeen million dollars in State funds with no match required. This money will be included into the Agency's budget when available.

Prepared by: Elizabeth Krafft, Deputy General Manager, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

- 1. Final draft grant agreement
- 2. Resolution



Monterey County

Board Report

Legistar File Number: WRAG 21-040

Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

Board of Supervisors

Item No.

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Introduced: 2/8/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

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Prepared by: Elizabeth Krafft, Deputy General Manager, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

- 1. Final draft grant agreement
- 2. Resolution





CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE LOCAL ASSISTANCE GRANT NACIMIENTO RESERVOIR TO SAN ANTONIO RESERVOIR INTERLAKE TUNNEL, SPILLWAY RAISE, AND FISH EXCLUSION SYSTEM GRANT AGREEMENT NUMBER – Q2081001

- **GRANTOR:** State of California, acting by and through The California Department of Fish and Wildlife P.O. Box 944209 Sacramento, CA 94244-2090
- **GRANTEE:** Monterey County Water Resources Agency 1441 Schilling Place, North Building Salinas, CA 93901

COVID-19 (Coronavirus) Requirements

Contractor and its subcontractor(s), collectively referred to as "Contractor", shall follow Federal, State, and local orders, guidelines and directives, and CDFW policies related to COVID-19. Contractor is required to practice physical distancing whenever possible and wear face covers in accordance with current California Department of Public Health guidelines.

In the event an individual working under this Contract exhibits COVID-like symptoms, Contractor agrees that individual will not work on this Contract unless he/she can work remotely or is quarantined for 14 days or has a negative test result. Contractor has the ability, subject to notification to CDFW's Contract Manager and with CDFW's approval to substitute that individual with a similarly qualified worker. If the Contractor becomes aware that an employee tests positive or has been exposed to someone who tests positive for COVID-19, the Contractor must immediately notify the CDFW Contract Manager, at a minimum of within 24 business hours. At that juncture, the Contractor may not proceed with CDFW-related work until receiving direction from the CDFW Contract Manager.

SECTION 1- LEGAL BASIS OF AWARD

Pursuant to Fish and Game Code Section 1501.5(b), the California Department of Fish and Wildlife (CDFW or Grantor) is authorized to enter into this Grant Agreement (Agreement) and to make an award to Monterey County Water Resources Agency (Grantee) for the purposes set forth herein. Grantee accepts the grant on the terms and conditions of this Agreement. Accordingly, Grantor and Grantee (Parties) hereby agree as follows:

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SECTION 2 - GRANT AWARD

- **2.01** <u>**Grant:**</u> In accordance with the terms and conditions of this Agreement, including Section 5.06 General Terms and Conditions, Grantor shall provide Grantee with a maximum of \$17,000,000 (Grant Funds) to financially support and assist Grantee's implementation of the Nacimiento Reservoir to San Antonio Reservoir Interlake Tunnel, Spillway Raise, and Fish Exclusion System (Project).
- **2.02** <u>**Term:**</u> The term of this Agreement is June 1, 2021, or upon Grantor approval, whichever is later, through June 30, 2023.

SECTION 3 – ELIGIBLE USES OF GRANT

Only Grantee expenditures that are necessary to implement the Project, that comply with applicable federal and State of California law, and that are made in accordance with Section 6 – Project Statement and Section 9 – Budget and Payment as set forth within this Agreement are eligible for reimbursement from Grant Funds.

SECTION 4 - GRANTEE'S REPRESENTATIONS AND WARRANTIES

Grantee represents and warrants to Grantor as follows:

- **4.01 Existence and Power:** Grantee is a public agency in the State of California, duly organized, existing, and acting pursuant to the California Water Code, Appendix, Chapter 52 and in good standing under the laws of California. Grantee has full power and authority to transact the business in which it is engaged and full power, authority, and legal right to execute and deliver this Agreement and incur and perform its obligations hereunder.
- **4.02 <u>Binding Obligation:</u>** This Agreement has been duly authorized, executed and delivered on behalf of Grantee and constitutes the legal, valid, and binding obligation of Grantee, enforceable in accordance with the Agreement's terms.

SECTION 5 - GRANTEE'S AGREEMENTS

- **5.01 Purpose:** This Agreement is entered into by the Parties for the purpose of providing financial support to Grantee to complete the Project, specifically the activities identified within Section 6 Project Statement. The Parties entered into a Memorandum of Agreement (MOA) concerning this Project on December 6, 2018. Such MOA is attached hereto as Exhibit 2 and made a part of this Agreement.
- **5.02 Project:** Grantee shall complete activities as set forth in Section 6 Project Statement.
- **5.03** <u>Use of Project Funds:</u> The CDFW will not make the Grant Funds available to Grantee until Grantee has: (1) received all necessary Project approvals; (2)
complied with the California Environmental Quality Act; and (3) secured all necessary funding for the Project.

Grantee agrees that only Grantee expenditures that are necessary to implement the Project, comply with applicable federal and State of California law, and made in accordance with Section 6 - Project Statement, and Section 9 – Budget and Payment as set forth within this Agreement are eligible for reimbursement from the Grant Funds. Grantee acknowledges that it may not transfer Grant Funds between or among budget line items without prior written approval from the CDFW Grant Manager in accordance with Section 9 – Budget and Payment.

- **5.04** <u>Eligibility of Funds:</u> In the event that the California Budget Act does not provide sufficient appropriations to allow Grantor to fund the Project at the level specified in Section 2 Grant Award and Section 9 Budget and Payment of this Agreement, Grantor reserves the right to modify this Agreement to reflect a reduction in available funds, as an alternative to termination.
- **5.05** <u>Submission of Reports:</u> Grantee shall comply with the format, content, and timing requirements set out in Section 8 Reports. Failure to submit timely and accurate reports shall be considered evidence of non-compliance with this Agreement and shall permit termination of the Agreement by Grantor.
- **5.06** <u>**General Terms and Conditions:**</u> Public Entities General Grant Provisions (Exhibit 1.a) is attached hereto and made a part of this Agreement.
- **5.07 <u>Amendments</u>:** This Agreement may only be amended in accordance with Section 5.06 General Terms and Conditions. Grantee shall submit any request to amend the line item budget in writing to the CDFW Grant Manager no later than 120 days prior to the end of the term of this Agreement. Grantee must include an explanation of and justification for any such request.
- **5.08** <u>Acknowledgement of Credit:</u> Grantee shall include signage, to the extent practicable, informing the public that the Project received finds through the California Department of Fish and Wildlife Local Assistance Grant. Further Grantee shall include appropriate acknowledgement of credit to the CDFW for Grantor's financial support when using any data and/or information developed under this agreement (e.g., posters, reports, publications, presentations).
- **5.09** <u>Labor Code Requirements; Prevailing Wages:</u> State grants may be subject to California Labor Code requirements, which include prevailing wage provisions. Certain State grants administered by the CDFW are not subject to Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 of the Labor Code. For more details, please refer to California Fish and Game Code Section 1501.5 and the Department of Industrial Relations website at <u>http://www.dir.ca.gov</u>. Grantee shall pay prevailing wage to all persons employed in the performance of any part of the Project if required by law to do so.

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- **5.10** <u>Environmental Compliance:</u> Grantee shall not proceed with on the ground implementation until California Environmental Quality Act compliance and all necessary permits and consultations are secured.
- **5.11** <u>California Business and Professions Code:</u> Grantee shall be responsible for obtaining the services of an appropriately licensed professional or appropriately licensed professionals if required by the California Business and Professions Code, including but not limited to Section 6700 et seq. (Professional Engineers Act) and Section 7800 et seq. (Geologists and Geophysicists Act).

If Grantee fails to perform in accordance with the compliance provisions of this Agreement, Grantor shall have sole discretion to delay, interrupt, or suspend the work for which the Grant Funds are supplied.

SECTION 6 - PROJECT STATEMENT

Introduction: The Project includes construction of a tunnel connecting the 6.01 Nacimiento and San Antonio Reservoirs in San Luis Obispo and Monterey Counties, near Paso Robles, California. The Project will divert water from Nacimiento Reservoir to San Antonio Reservoir that may have otherwise been spilled at Nacimiento Dam. The Nacimiento River basin produces nearly three times the average annual flow of the San Antonio River basin, therefore, capturing high Nacimiento river flows and diverting those flows to the San Antonio Reservoir increases the overall storage capacity of the system. Specifically, the purpose of this Project is to provide for increased aquifer recharge capability to enhance the Salinas Valley Groundwater Basin sustainability and provide a reduction in flood event volumes and a reduction in flood spills from the Nacimiento Reservoir. This Project will also lead to improved water management and conservation that can benefit local water needs and use, improve watershed health and resiliency, and the conservation of native fishes, including steelhead in the Salinas River watershed.

White Bass (*Morone chrysops*) are present in the Nacimiento Reservoir and have periodically been physically observed in the Nacimiento River, a tributary of the Salinas River. White Bass were introduced to Nacimiento Reservoir in 1965, but concerns about the spread of the fish during the 1970s resulted in management actions to eradicate the species in all but Nacimiento Reservoir and subsequent regulatory and state code changes to preclude White Bass from any waters of California other than Nacimiento Reservoir. This Project may affect the transfer of White Bass between the Nacimiento and San Antonio Reservoirs, and this Agreement is focused on White Bass management. Specifically, this Agreement is to fund structures that would prevent the movement of live White Bass between the Reservoirs.

6.02 <u>**Objectives:**</u> Specific objectives of this Project are to construct a fish exclusion system (fish screens) in a tunnel intake structure and physical components of the

tunnel outlet to prevent or inhibit the opportunity for the movement of White Bass through the tunnel from the Nacimiento Reservoir to the San Antonio Reservoir, while maintaining the tunnel diversion flow.

6.03 Project Description: Grantee will manage the Project as described below:

The Project will prevent the movement of live White Bass between the Nacimiento and San Antonio Reservoirs through the Interlake Tunnel. The Project entails the construction of a fish exclusion system defined as the Interlake Tunnel intake structure equipped with fish screens and appurtenant equipment located on the north shore of the Nacimiento Reservoir immediately west of the North Shore Boat Ramp. The components of this Project include those structures, equipment and features additional to a conventional tunnel intake required to comply with the MOA concerning this Project effective December 6, 2018.

The tunnel intake is a reinforced concrete structure approximately 72-feet wide and 288-feet long equipped with 1.75 mm rotating cylindrical fish screens and associated controls, gates, trash rack, equipment building, utilities and debris removal, and automated screen brushing system.

The final design and construction of this Project will be performed by a designbuild contractor to be procured by Grantee. Grantee will provide oversight of the contractor's design and construction work to ensure compliance with the requirements of this Agreement as outlined in the MOA.

- **6.04** <u>Location:</u> The Project is located on approximately five acres of Grantee owned land located at the Lake Nacimiento Overflow Day Use Boat Ramp, approximately 4,200 feet west of the intersection of River Road and Nacimiento Lake Drive located at N 35 45 57 latitude; W 120 53 44 longitude in San Luis Obispo County, California (Property).
- **6.05 Project Site Access:** Grantee shall give Grantor, and its employees and agents written permission to access the Property at least once every 12 months from the date of Grantor's Notice to Proceed until 25 years after the term of this Agreement (as set out in Section 2 Grant Award) ends for purposes of inspections and monitoring.
- **6.06** <u>Materials and Equipment:</u> All materials and equipment are included in the design-build contractor's costs.
- **6.07 Project Implementation:** Consistent with Grantee's proposal for the Project, Grantee will complete the following tasks in accordance with Section 6.08 Schedule of Due Dates and Deliverables.

The project will be implemented by the Grantee through a design-build construction contract administered and overseen by Grantee. The construction

contract will incorporate contractor payment provisions for the components of the project identified as the following tasks:

<u>**Task 1 - Project Management and Administration:</u>** Grantee will provide technical and administrative services associated with performing and completing the work for this Project, including managing this Agreement, assuring all permits are finalized, administering subcontracts, invoicing and payments, drafting and finalizing progress, and final reports. The Grantee's Project Manager shall promptly notify the CDFW Grant Manager of events, Change Orders, or proposed changes that could affect the Scope of Work, budget, or schedule of work performed under this Grant.</u>

Task 2 – Construction and Construction Management

This Task includes all construction-related activities, including Change Orders, required to implement this Project during the term of this grant. The Construction and Construction Management task consists of:

- **a. Mobilization and General Conditions** Contractor mobilization and demobilization from the site. Compliance with all contract general conditions requirements including insurance, bonding, and labor agreements.
- **b. Sitework** Design and implementation of a Storm Water Pollution and Prevention (SWPP) program. Cofferdam construction to protect the construction site from high lake elevation impacts.
- **c. Excavation** Earthwork including site clearing, excavation with the structure, excavation of the approach channel, structural backfill and compaction, geogrid installation, bioretention swales, geotextile, parking lot excavation and gravel surface, and sidewalks.
- **d. Structures** Includes reinforced concrete structures including approach slabs, main structure slab, control building slab, upstream walls, structure walls, control building walls, intake structure deck, concrete piers, and sidewalks.
- e. Metals Traffic rated access hatches and doors, handrails, grated intake cover with supports, trash rack and support structure, tunnel and fish screen isolation gates, and bypass gate.
- **f.** Screens and Appurtenances Includes brushed cylinder screens, debris boom, trash rake, and appurtenant equipment and controls.
- **g.** Buildings Includes masonry control building, heating, ventilating, and air conditioning equipment and controls. Miscellaneous exterior improvements including bollards, chain link fencing, and gates.

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h. Electrical/Instrumentation - Includes standby generator, transformers, transfer switches, panel boards, actuators, disconnects, conduit, security cameras, light poles, light fixtures, Programmable Logic Controller (PLC) cabinet, level indicating transmitter, fiber terminations, and connector housing.

6.08 <u>Schedule of Due Dates and Deliverables:</u>

<u>Task</u>	<u>Description</u>	<u>Deliverables</u>	Estimated Completion Dates
1	Project Management and Administration	Monthly Invoices	Due within 30 days following each calendar month during the grant period following grant execution
		Copies of executed	Within 15 days of
		contracts	execution
		Draft Final Report	May 31, 2023
		Final Report	June 30, 2023
		Final Invoice	June 30, 2023
2	Construction and	Monthly Construction	Monthly through the
	Construction	Progress Reports	Project term submitted
	Management		with Invoices
		Completed Facility	June 30, 2023

SECTION 7 - CONTACTS

The point of contact may be changed at any time by either party by providing a 10 day advance written notice to the other party. The Parties hereby designate the following points of contact during the Term of this Agreement:

CDFW Grant Manager:		Grantee Project Manager:	
Name:	Jonathon Mann	Name:	Brent Buche
Title:	Conservation Engineering Branch Manager	Title:	General Manager
Address:	1010 Riverside Parkway West Sacramento, CA 95605	Address:	1441 Schilling Place, North Bldg. Salinas, CA 93901
Phone:	(916) 599-0925	Phone:	(831) 755-4860
Email:	Jonathon.mann@wildlife.ca.gov	Email:	bucheb@co.monterey.ca.us

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MONTEREY COUNTY WATER RESOURCES AGENCY

CDFW Gra	ant Coordinator:	Grantee P	Project Coordinator:	
Name:	Christina Kashuba	Name:	Elizabeth Krafft	
Title:	Contract Coordinator	Title:	Deputy General Manager	
Address:	1010 Riverside Parkway	Address:	1441 Schilling Place,	
	West Sacramento, CA 95605		North Bldg.	
			Salinas, CA 93901	
Phone:	(916) 376-1672	Phone:	(831) 755-4864	
Email:	Christina.kashuba@wildlife.ca.gov	Email:	krafftea@co.monterey.ca.us	

Direct all administrative inquiries to:

SECTION 8 - REPORTS

8.01 <u>Progress Reports:</u> Grantee shall submit Monthly Construction Progress Reports that comply with the requirements below to the CDFW Grant Manager. The CDFW Grant Manager will provide Grantee with a sample Progress Report upon request.

Requirements:

- 1. Grantee name, the Project title, this Agreement number, and dates progress report covers;
- 2. Activities and tasks performed and/or completed, a summary of progress to date including progress since the last report, and a brief outline of upcoming work scheduled for the subsequent quarter;
- 3. Documentation of all subcontractor activities;
- 4. Updates on progress towards meeting project objectives, output and outcome performance measures;
- 5. Document delivery of any intermediate work products;
- 6. Costs incurred during the subject period, total of costs incurred to date, and the remaining balance;
- 7. Any problems encountered while performing the tasks and proposed solutions, timeline for resolution, and status of previously unresolved problems; and
- 8. Monthly Construction Progress Reports will be submitted electronically in PDF or Microsoft Word compatible format and conform to the template provided.
- **8.02 Draft and Final Report:** Grantee shall submit a Draft Final Report and Final Report by the dates listed in Section 6.08 Schedule of Due Dates and Deliverables. Grantee shall submit a Draft Final Report for review by the CDFW Grant Manager, at least 30 days prior to the end of the grant term. The report shall summarize the life of the Agreement and describe the work and results pursuant to Section 6 Project Statement. Upon approval from the CDFW Grant Manager, the Final Report can be submitted. The Draft and Final Reports will be submitted, electronically, to the CDFW Grant Manager upon completion of the Project tasks. The CDFW Grant Manager will provide Grantee a sample Final Report template, upon request.

SECTION 9 – BUDGET AND PAYMENT

9.01 <u>Budget Details and Funding Summary:</u> Grantor will provide an amount not to exceed \$17,000,000 as detailed in the Line Item Budget Detail (Budget) below.

Any changes or modifications to a fund source indicated below must be promptly reported to CDFW Grant Manager in writing.

Task Budget Table					
Task	Description	CDFW Grant Funding	Grantee In-kind Services	Project Total	
Task 1: Project Management and Administration	Technical and administrative services	\$425,000	\$0	\$425,000	
Task 2: Construction and Construction Management	All construction-related activities	\$16,575,000	\$0	\$16,575,000	
Total Budget		\$17,000,000	\$0	\$17,000,000	

Line Item Budget Detail					
		CDFW Grant Funding	Matching Funds/ Cash	Project Total	
Task 1: Project Management and A	dminist	ration			
A. PERSONAL SERVICES	Rate*				
General Manager	\$254	\$64,899	\$0	\$64,899	
Deputy General Manager	\$224	\$86,019	\$0	\$86,019	
Accountant	\$121	\$77,627	\$0	\$77,627	
Senior Water Resources Engineer/Hydrologist	\$164	\$146,863	\$0	\$146,863	
Associate Water Resources Engineer/Hydrologist	\$139	\$49,592	\$0	\$49,592	
Subtotal: Personnel Services		\$425,000	\$0	\$425,000	
Staff Benefits (*Included in the		\$0	\$0	\$0	
Total Personnel Services		\$425,000	\$0	\$425,000	
Task 2: Construction and Construction	Task 2: Construction and Construction Management				
B. OPERATING EXPENSES					
a. Mobilization and General Conditions		\$1,033,243	\$0	\$1,033,243	
b. Sitework		\$590,182	\$0	\$590,182	
c. Evacuation		\$4,840,127	\$0	\$4,840,127	
d. Structures		\$6,224,863	\$0	\$6,224,863	

	Line Item Budget Detail				
		CDFW Grant Funding	Matching Funds/ Cash	Project Total	
e.	Metals	\$1,146,494	\$0	\$1,146,494	
f.	Screens and Appurtenances	\$2,354,625	\$0	\$2,354,625	
g.	Buildings	\$124,923	\$0	\$124,923	
h.	Electrical/Instrumentation	\$260,543	\$0	\$260,543	
Subtotal: Operating Expenses:		\$16,575,000	\$0	\$16,575,000	
C.	GRAND TOTAL	\$17,000,000	\$0	\$17,000,000	

Funding Sources Summary							
Source of Funds	Cash	In-Kind	Total				
CDFW Local Assistance Grant Program	\$17,000,000	\$0	\$17,000,000				
Applicant	\$0	\$0	\$0				
Total Project Cost	\$17,000,000	\$0	\$17,000,000				

9.01.1 Budget Flexibility: Grantee must submit all budget line item revision requests, in writing, to the CDFW Grant Manager, prior to implementing any changes. All proposed budget changes require prior approval from the CDFW Grant Manager, regardless of budgetary impact.

Informal Budget adjustments between existing line items may be permitted. Any revision to the Line Item Budget Detail must comply with Section 5.07 – Amendments. Considerations for informal Budget adjustments, if granted, must include:

- 1. Revisions which are consistent with the purpose, objectives, and description of the Project as detailed in Section 6 Project Statement;
- 2. Revisions that do not increase or decrease the total Agreement amount;
- 3. Revisions that do not substitute key personnel; and
- 4. Line item shifts **within** a budget category (e.g., Field Supplies to Travel) up to \$25,000 or 10% of the Agreement amount, whichever is less.

Formal Budget adjustments will be considered by the Grantor, with prior approval from the CDFW Grant Manager. An amendment to the Agreement is required if a formal Budget adjustment is approved. Considerations for formal amendments, if granted, include:

- 1. Shifting Grant Funds between budget categories (e.g., Personnel Services to Operating Expenses);
- 2. Increasing or decreasing the total Agreement amount;

- 3. Substituting key personnel; or
- 4. Line item shifts **within** a budget category (e.g. Field Supplies to Travel) that exceeds \$25,000 or 10% of the Agreement amount, whichever is less.

9.02 Payment Provisions

9.02.1 Disbursements: Grantor will disburse Grant Funds to Grantee not more frequently than monthly, in arrears, upon receipt of an original itemized invoice and any required mandatory documentation as identified in Section 6.08 – Schedule of Due Dates and Deliverables.

Grant disbursements will be mailed to the following Grantee address:

Grantee Name:	Monterey County Water Resources Agency		
Attention: General Manager			
Address:	1441 Schilling Place, North Building		
	Salinas, CA 93901		

9.02.2 Invoice Documentation: Each invoice for payment must be accompanied by a written description, not to exceed two pages in length, of Grantee's performance under this Agreement since the time the previous such report was prepared. The report shall describe the types of activities and specific accomplishments during the period for which the payment is being made rather than merely listing the number of hours worked during the reporting period. The Final Invoice must include a budget summary of all cost share expenditures by fund source, as applicable. The CDFW Grant Manager will provide Grantee with a sample invoice template upon request. The Final Invoice is due in accordance with Section 6.08 – Schedule of Due Dates and Deliverables. The invoice package must be either mailed hard copy or electronic submission to the CDFW Grant Manager contact located in Section 7 – Contacts.

Requirements: The invoice shall contain the following information:

- 1. The word "Invoice" should appear in a prominent location at the top of the page(s);
- 2. Printed name of Grantee on company letterhead;
- 3. Grantee's business address, including P.O. Box, City, State, and Zip Code;
- 4. Name of the CDFW Region/Division being billed;
- 5. The invoice date and the time period covered; i.e., the term "from" and "to";
- 6. This Agreement number and the sequential number of the invoice (i.e., Q2081001-Invoice 1);

- 7. The invoice must be itemized using the categories and following the format of the Budget;
- 8. The total amount due. This should be in a prominent location in the lower right-hand portion of the last page and clearly distinguished from other figures or computations appearing on the invoice. The total amount due shall include all costs incurred by Grantee under the terms of this grant;
- 9. The original signature of Grantee; and
- 10. Grantee must provide supporting documentation for the invoice and actual receipts.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the dates set forth below the signatures.

AUTHORIZED AGENT FOR GRANTEE					
Signature:					
Printed Name: Brent Buche					
Title: <u>General Manager</u>					
Date:					
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE					

By:

Signature:

Printed Name: Valinda Roberts

Title: Chief, Business Operations

Date: _____

This agreement is exempt from DGS-OLS approval, per SCM 4.06.



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- 1. <u>APPROVAL</u>: This Agreement is of no force or effect until signed by both Parties and approved by CDFW or Grantor. Grantee may not commence performance until such approval has been obtained.
- 2. <u>AMENDMENT</u>: No amendment or variation of the terms of this Agreement shall be valid unless made in writing, signed by the Parties and approved as required. No oral understanding or Agreement not incorporated in this Agreement is binding on either of the Parties.
- **3. ASSIGNMENT:** This Agreement is not assignable by Grantee, either in whole or in part, without the consent of CDFW in the form of a formal written amendment.
- 4. <u>AUDIT</u>: Grantee agrees that CDFW, the Department of General Services (DGS), the Bureau of State Audits, or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Agreement. Grantee agrees to maintain such records for possible audit for a minimum of three (3) years after final payment, unless a longer period of records retention is stipulated. Grantee agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. Further, Grantee agrees to include a similar right of the State to audit records and interview staff in any subcontract related to performance of this Agreement. (Gov. Code §8546.7, Pub. Contract Code, CCR Title 2, Section 1896).
- 5. <u>INDEMNIFICATION</u>: Grantee agrees to indemnify, defend and save harmless the State of California, CDFW, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all of Grantee's employees or agents, contractors, subcontractors, suppliers, laborers, and any other person, firm or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by Grantee in the performance of this Agreement.

The State of California shall defend, indemnify and hold Grantee, its officers, employees and agents harmless from and against any and all liability, loss, expense, attorney's fees, or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorney's fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of the State of California, or its agencies, their respective officers, agents or employees.

- 6. <u>DISPUTES</u>: Grantee shall continue with the responsibilities under this Agreement during any dispute.
- 7. <u>INDEPENDENT CONTRACTOR</u>: Grantee, and the agents and employees of Grantee, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of CDFW. Grantee acknowledges and promises that CDFW is not acting as an employer to any individuals furnishing services or work pursuant to this Agreement.



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NON-DISCRIMINATION CLAUSE: During the performance of this Agreement, Grantee and its 8. subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40), marital status, and denial of family care leave. Grantee and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Grantee and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (af) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seg.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full. Grantee and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Agreement.

- **9.** <u>UNENFORCEABLE PROVISION</u>: In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.
- **10.** <u>LICENSES AND PERMITS (If Applicable)</u>: Grantee is responsible for obtaining all licenses and permits required by law for accomplishing any work required in connection with this Agreement. Costs associated with permitting may be reimbursed under this Agreement only if approved in the budget detail and payment provisions section.
- 11. <u>RIGHTS IN DATA</u>: Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Agreement, are subject to the rights of the State as set forth in this section. The State shall have the right to reproduce, publish, and use all such work, or any part thereof, in any manner and for any purposes whatsoever and to authorize others to do so. If any such work is copyrightable, Grantee may copyright the same, except that, as to any work which is copyrighted by Grantee, the State reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, and use such work, or any part thereof, and to authorize others to do so.
- 12. <u>CONTINGENT FUNDING</u>: It is mutually understood between the Parties that this Agreement may have been written before ascertaining the availability of State appropriation of funds for the mutual benefit of both Parties in order to avoid program and fiscal delays which would occur if the Agreement were executed after that determination was made.

This Agreement is valid and enforceable only if sufficient funds are made available pursuant to the California State Budget Act for the fiscal year(s) covered by this Agreement for the purposes



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of this program. In addition, this Agreement is subject to any additional restrictions, limitations, or conditions enacted by the Legislature of any statute enacted by the Legislature which may affect the provisions, terms or funding of this Agreement in any manner.

It is mutually agreed that if the Legislature does not appropriate sufficient funds for the Agreement, the State has the option to terminate the Agreement under the termination clause or to amend the Agreement to reflect any reduction of funds. CDFW has the option to invalidate the contract under the 30-day cancellation clause or to amend the Agreement to reflect any reduction in Grant Funds.

13. <u>RIGHT TO TERMINATE</u>:

- **a.** This agreement may be terminated by mutual consent of both parties or by any party upon thirty (30) days written notice and delivered by USPS First Class or in person.
- **b.** In the event of termination of this Agreement, Grantee shall immediately provide CDFW an accounting of all funds received under this Agreement and return to CDFW all Grant Funds received under this Agreement which have not been previously expended to provide the services outlined within this Agreement.
- **c.** Any such termination of this Agreement shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination. CDFW shall reimburse Grantee for all allowable and reasonable costs incurred by it for the Project, including foreseeable and uncancellable obligations. Upon notification of termination from CDFW, Grantee shall use its reasonable efforts to limit any outstanding financial commitments.
- **14.** <u>CONFIDENTIALITY OF DATA</u>: Grantee shall protect from disclosure all information made available by CDFW. Grantee shall not be required to keep confidential any data or information which is publicly available, independently developed by Grantee, or lawfully obtained from third parties. Written consent of CDFW must be obtained prior to disclosing information under this Agreement.
- **15.** <u>**DISCLOSURE REQUIREMENTS</u>:** Any document or written report prepared in whole or in part pursuant to this Agreement shall contain a disclosure statement indicating that the document or written report was prepared through an Agreement with CDFW. The disclosure statement shall include this Agreement number and dollar amount of all Agreements and subcontracts relating to the preparation of such documents or written reports. The disclosure statement shall be contained in a separate section of the document or written report.</u>

If Grantee or any subcontractor(s) are required to prepare multiple documents or written reports, the disclosure statement may also contain a statement indicating that the total Agreement amount represents compensation for multiple documents or written reports. Grantee shall include in each of its subcontracts for work under this Agreement, a provision which incorporates the requirements stated within this section.



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- **16.** <u>USE OF SUBCONTRACTOR(S)</u>: If Grantee desires to accomplish part of the services through the use of one (1) or more subcontractors, the following conditions must be met:
 - **a.** Grantee shall submit any subcontracts to CDFW for inclusion in the grant file;
 - **b.** The Agreement between the primary Grantee and the subcontractor must be in writing;
 - **c.** The subcontract must include specific language which establishes the rights of the auditors of the State to examine the records of the subcontractor relative to the services and materials provided under the Agreement; and
 - **d.** Upon termination of any subcontract, CDFW Grant Manager shall be notified immediately, in writing.

Grantee shall ensure that any subcontract in excess of \$100,000 entered into as a result of this Agreement contains all applicable provisions stipulated in this Agreement.

- 17. <u>POTENTIAL SUBCONTRACTOR(S)</u>: Nothing contained in this Agreement or otherwise shall create any contractual relation between CDFW, and any subcontractor(s) and no subcontract shall relieve Grantee of its responsibilities and obligations hereunder. Grantee agrees to be as fully responsible to CDFW for the acts and omissions of its subcontractor(s) and of persons directly employed or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Grantee. Grantee's obligation to pay its subcontractor(s) is an independent obligation from CDFW's obligation to make payments to Grantee. As a result, CDFW shall have no obligation to pay or to enforce the payment of any monies to any subcontractor.
- 18. <u>TRAVEL AND PER DIEM (if applicable)</u>: Grantee agrees to pay reasonable travel and per diem to its employees under this Agreement. The reimbursement rates shall not exceed those amounts identified in the California Department of Human Resources travel reimbursement guidelines. No travel outside the State of California shall be reimbursed unless prior written authorization is obtained from CDFW.
- **19.** <u>LIABILITY INSURANCE (as applicable)</u>: Unless otherwise specified in the Agreement, when Grantee submits a signed Agreement to the State, Grantee shall also furnish to the State either proof of self-insurance or a certificate of insurance stating that there is liability insurance presently in effect for Grantee of not less than \$1,000,000 per occurrence for bodily injury and property damage liability combined. Grantee agrees to make the entire insurance policy available to the State upon request.

The certificate of insurance will include provisions a, b, and c, in their entirety:

- **a.** The insurer will not cancel the insured's coverage without thirty (30) days prior written notice to the State;
- **b.** The State of California, its officers, agents, employees, and servants are included as additional insured, by insofar as the operations under this Agreement are concerned; and
- c. The State will not be responsible for any premiums or assessments on the policy.



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Grantee agrees that the bodily injury liability insurance herein provided for, shall be in effect at all times during the term of this Agreement. In the event said insurance coverage expires at any time or times during the term of this Agreement, Grantee agrees to provide, prior to said expiration date, a new certificate of insurance evidencing insurance coverage as provided for herein for not less than the remainder of the term of this Agreement, or for a period of not less than one (1) year. New certificates of insurance are subject to the approval of the (DGS), and Grantee agrees that no work or services shall be performed prior to giving of such approval. In the event Grantee fails to keep in effect, at all times, insurance coverage as herein provided, the State may, in addition to any other remedies it may have, terminate this Agreement upon occurrence of such event.

CDFW will not provide for, nor compensate Grantee for any insurance premiums or costs for any type or amount of insurance. The insurance required above, shall cover all Grantee supplied personnel and equipment used in the performance of this Agreement. When applicable, if subcontractors performing work under this Agreement do not have insurance equivalent to the above, Grantee's liability shall provide such coverage for the subcontractor, except for coverage for error, mistake, omissions, or malpractice, which shall be provided by the subcontractor if such insurance is required by the State.

- 20. <u>GRANTEE STAFF REQUIREMENTS</u>: Grantee represents that it has or shall secure at its own expense, all staff required to perform the services described in this Agreement. Such personnel shall not be employees of or have any contractual relationship with CDFW.
- 21. <u>PROPERTY ACQUISITIONS AND EQUIPMENT PURCHASES</u>: Property, exclusive of real property, as used in this exhibit shall include the following:
 - a. Equipment Tangible property (including furniture and electronics) with a unit cost of \$5,000 or more and a useful life of four (4) years or more. Actual cost includes the purchase price plus all costs to acquire, install, and prepare the equipment for its intended use.
 - **b.** Furniture, including standard office furnishings including desks, chairs, bookcases, credenzas, tables, etc.
 - **c.** Portable Assets, including items considered 'highly desirable' because of their portability and value, e.g., calculators, computers, printers, scanners, shredders, cameras, etc.
 - **d.** Electronic Data Processing (EDP) Equipment, including all computerized and auxiliary automated information handling, including system design and analysis; conversion of data; computer programming; information storage and retrieval; voice, video and data communications; requisite system controls; simulation and all related interactions between people and machines.

Grantee may purchase property under this Agreement only if specified in the Budget section. All property purchased by Grantee is owned by Grantee. CDFW does not claim title or ownership to



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the property but, requires Grantee to maintain accountability for all property purchased with grant funds.

Title or ownership to property with a unit cost of \$5,000 or more may be retained by Grantee or Grantor upon end of the grant cycle; final disposition will be coordinated by CDFW's Grant Manager.

Before property purchases made by Grantee are reimbursed by CDFW, Grantee shall submit paid Grantee receipts identifying the Grant Agreement Number, purchase price, description of the item(s), serial number(s), model number(s), and location, including street address where property will be used during the term of this Agreement. Said paid receipts shall be attached to Grantee's invoice(s).

Grantee shall keep, and make available to Grantor, adequate and appropriate records of all property purchased with the Grant Funds.

Prior written authorization by the CDFW Grant Manager shall be required before Grantee will be reimbursed for any property purchases not specified in the budget. Grantee shall provide to CDFW Grant Manager, all particulars regarding the necessity for such property and the reasonableness of the cost.

Property will only be considered for purchase approval if no other equipment owned by the applicant is available and suitable for the project.

Grant Funds cannot be used to reimburse the project for equipment obtained prior to the beginning of the grant term.

Grant Funds cannot be used for property if specifically prohibited in the authorizing Legislation or restricted in the terms of the program.

Should this Agreement be cancelled for any reason, any property purchased with Grant Funds shall be returned to Grantor.

State policies and procedures applicable to procurement with nonfederal funds, shall apply to procurement by Grantee under this Agreement, provided that procurements conform to applicable State law and the standards identified in this exhibit. These include but are not limited to: statutes applicable to State agencies; statutes applicable to State colleges and universities; public works projects; the California Constitution governing University of California contracting, the State Administrative Manual; statutes applicable to specific local agencies; applicable city and county charters and implementing ordinances including policies and procedures incorporated in local government manuals or operating memoranda.

MEMORANDUM OF AGREEMENT between CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE and THE MONTEREY COUNTY WATER RESOURCES AGENCY

regarding the

NACIMIENTO RESERVOIR INTERLAKE TUNNEL PROJECT AND SAN ANTONIO SPILLWAY MODIFICATION PROJECT

RECITALS

- A. The California Department of Fish and Wildlife ("CDFW") is a Department of the California Natural Resources Agency, functioning as a trustee agency of the State of California that manages California's diverse fish, wildlife and plant resources, and the habitats upon which they depend; and
- B. The Monterey County Water Resources Agency ("Agency") is a flood control and water agency established in 1990 by special act of the state legislature codified at Water Code Appendix Chapter 52, and is the successor to the Monterey County Flood Control and Water Conservation District established in 1947, also by special act of the state legislature; and
- C. The Agency and CDFW recognize the unique potential to partner with each other, the County of Monterey, landowners, and other partners to develop improved water management, storage, and conservation that can benefit local water needs and use, the agricultural community, improve watershed health and resiliency, and the conservation of native fishes, including steelhead in the Salinas River watershed. This MOA represents the initiation of a partnership to pursue these benefits; and
- D. The Agency proposes to construct a tunnel connecting the Nacimiento and San Antonio Reservoirs in San Luis Obispo and Monterey Counties, respectively, ("Tunnel Project"). The purpose of the tunnel is to fully utilize the existing storage capacity in San Antonio Reservoir, thus providing for increased aquifer recharge capability to enhance Basin sustainability, and, concomitantly providing additional flood management capability through a reduction in flood event volumes and a reduction in flood spills from the Nacimiento Reservoir; and
- E. The Agency also proposes to raise the spillway at the San Antonio Reservoir ("Spillway Modification Project") in Monterey County in conjunction with the Tunnel Project in order to further increase the storage capacity of San Antonio Reservoir, which additional storage capacity increases the benefits obtained from construction of the tunnel alone and increases the Agency's aquifer recharge capability (collectively, the Tunnel Project and Spillway Modification Project are referred to as the "Projects"). The Spillway Modification Project is considered as part of this agreement, because it would affect the

transfer of White Bass between the Nacimiento and San Antonio Reservoirs when a tunnel links the resevoirs, and this Memorandum of Agreement is focused on the Tunnel Project and White Bass management. CDFW and the Agency will work with the Division of Safety of Dams to investigate and determine the feasibility of including a structure that would prevent the movement of live White Bass through the San Antonio Reservoir's spillway; and

- F. The Agency intends to design the Tunnel Project to approximately 60% design completion utilizing design build procurement documents, conduct a Proposition 218 vote to obtain funding and then issue a design-build contract for the remaining design and construction; and
- G. The Agency intends to construct the Spillway Modification Project utilizing the designbid-build method of procurement; and
- H. White Bass (*Morone chrysops*), native to St. Lawrence-Great Lakes, Hudson Bay and Red River Basin, and Mississippi River basins from Quebec to Manitoba and south to Louisiana, are present in the Nacimiento Reservoir and have periodically been physically observed in the Nacimiento River, a tributary of the Salinas River. White Bass were introduced to Nacimiento Reservoir in 1965, but concerns about the spread of the fish during the 1970s resulted in management actions to eradicate the species in all but Nacimiento and subsequent regulatory and state code changes to preclude White Bass from any waters of California other than Nacimiento Reservoir; and
- I. Thus far, White Bass have not been detected in the San Antonio Reservoir but have been detected in the Salinas River. White Bass are a non-native species listed by state regulation as Detrimental as they may alter/affect existing sport fisheries resulting in a shift from more preferred gamefish to a fishery dominated by White Bass. Additionally, they pose a threat to native fish species, including vulnerable steelhead. Steelhead trout inhabiting the Salinas River Basin are part of the South-Central California Coast Evolutionary Significant Unit (SCCC-ESU) as defined by the National Marine Fisheries Service (NMFS). The NMFS listed steelhead trout in the SCCC-ESU as a federally threatened species under the Federal Endangered Species Act and CDFW is a co-manager for the SCCC-ESU; and
- J. California Fish and Game Code (F&G) Section 6400 makes it unlawful to place, plant or cause to be planted in any waters of the State any live white bass without first submitting it for inspection and securing written permission from CDFW. F&G Section 6400.5 makes it unlawful to transport or possess any live white bass unless it is first submitted for inspection to, and written permission is obtained from CDFW; and
- K. The CDFW and the Agency have been conferring in relation to the Agency's request for written permission from CDFW under F&G Sections 6400 and 6400.5, in the event of incidental passage of White Bass from the Nacimiento Reservoir to the San Antonio Reservoir; and

- L. CDFW and the Agency have identified specific physical structures and parameters to the structures, including a contemporary fish exclusion screen ("fish screen"), a tunnel intake, and physical components of the tunnel outlet, and operating conditions that from an engineering perspective can be reasonably and feasibly incorporated into the Tunnel Project design to prevent or inhibit the opportunity for the movement or survival of White Bass through the Tunnel while maintaining the tunnel diversion flow; and
- M. CDFW acknowledges that it has received from the Agency a document prepared by the Agency and titled Regional Context and Potential Ecological Benefits, interlake Tunnel and Spillway Modification Project (2015); and
- N. By entering into this MOA, CDFW and the Agency intend that CDFW, as a California Environmental Quality Act (CEQA) responsible and trustee agency, will provide guidance to the Agency in the completion of Agency's Interlake Tunnel and Spillway Modification Projects Environmental Impact Report (EIR) that analyzes the potentially significant effects arising from implementation of both Projects, including an analysis of the possible incidental passage of White Bass through the Tunnel; and
- O. CDFW has provided a path to coverage under the California Fish and Game Code for the Agency in the event that White Bass move through the tunnel, despite the Agency's incorporation of certain measures, in consultation with CDFW, to avoid or minimize White Bass passage or survival through the Tunnel; and
- P. The Agency and CDFW have established, a centralized and coordinated method for the internal communication within the CDFW, and between CDFW as a whole and the Agency, in the Agency's application for the necessary permits from the CDFW for the Projects; and
- Q. CDFW desires to cooperate with and assist the Agency in the Tunnel Project with respect to implementing, maintaining and monitoring measures to prevent or inhibit the passage and survival of White Bass out of the Nacimiento and San Antonio Reservoirs; and
- R. The Agency is willing to incorporate reasonably feasible measures into the Projects, which prevent or inhibit White Bass to viably pass into San Antonio Reservoir and spawn or escape the reservoir and which also contributes to protection for the Steelhead in the Salinas River and its tributaries.
- S. Through this Agreement, CDFW and the Agency wish to identify those features of the Tunnel Project that would facilitate CDFW's granting of permission under sections 6400 and 6400.5 of the Fish and Game Code.

NOW THEREFORE, CDFW and Agency agree as follows:

1. Effective Date and Term.

This Memorandum of Agreement (MOA) will be effective as of the date last signed by either of the parties and shall remain in effect for 25 years after construction of the Projects have been certified by the Agency as complete. This MOA may be amended annually by mutual written agreement of the parties.

2. Agency Projects Principles.

- A. It is the Agency's position that the Projects provide flood control, water recharge, and conservation stream flows that will generally be beneficial. Also, the Agency anticipates that the mitigation measures incorporated as a result of the EIR and agency consultations will result in Projects that are beneficial to stakeholders and the region.
- B. Is is the Agency's position that feasibility of the Projects includes technological, engineering, environmental, and economic factors. The Projects must be developed incorporating feasible design and operational features. Feasibility includes what is technologically feasible, environmentally desirable and economically viable.
- C. In order to design and environmentally assess the Projects and prepare a Proposition 218 engineer's report that comprehensively captures the true and full costs of the Projects, it is the Agency's position that there must be relative certainty concerning the design features, construction, operational and maintenance costs, and readily available sources of funding.
- D. Agency and CDFW will identify a coordinated and timely path for the processing of those analyses, applications, and associated reviews necessary to prepare the Projects for final CDFW regulatory permit review and decision.

3. <u>Commitments of the Parties.</u>

- A. Design of the Tunnel Project
 - I. Agency.
 - a. Incorporate into the design-build contract the incremental cost to design and construct an intake structure in Lake Nacimiento sufficient to accommodate the installation of a fish screen and associated intake and outlet characteristics to provide a low probability of White Bass entering the tunnel while also maintaining the tunnel diversion flow. The intake structure will include the incremental improvements over a conventional basic intake structure to provide an entrance and approach channel suitable to accommodate the installation of the fish screen. The Agency and CDFW have agreed to design parameters and acceptable ranges for a fish screen and associated intake structure. Those parameters are attached as Exhibit A.

- i. For each design submittal to CDFW, CDFW shall provide its comments on said design specifications and drawings to the Agency within a reasonable time frame after the Agency provides those design specifications and drawings to CDFW. The Agency shall incorporate those CDFW changes that are in accordance with the design parameters and acceptable ranges for each parameter as mentioned above into the final design specifications and drawings at Agency's cost and expense.
- ii. If prior to or after completion of the Projects, either (a) CDFW determines that White Bass are established in Lake San Antonio or (b) Fish and Game Code Section 6400 or Section 6400.5 is changed to allow White Bass in Lake San Antonio, the Parties will meet and confer as provided in sections 3.C.II.i and 3.D below.

B. <u>CEQA Process</u>

- I. The Parties agree that the Agency shall serve as the Lead Agency for the purposes of the California Environmental Quality Act (CEQA) because the Agency is the public agency that must provide the initial approval of the proposed projects.
- II. CDFW shall serve as responsible agency under CEQA because it will be responsible for issuing certain permits for the projects, including (without limitation) authorization under Section 1600 et seq. (streambed alteration) and 6400 and 6400.5 of the Fish and Game Code. CDFW is also a Trustee Agency under CEQA and this MOA is not intended to affect CDFW's role as a CEQA Trustee Agency.
- III. The Agency shall prepare the Interlake Tunnel and Spillway Modification Projects EIR that will:
 - a. Analyze the potentially significant environmental effects related to the potential movement of White Bass from Nacimiento Reservoir to San Antonio Reservoir and the Salinas River.
 - b. Use the foregoing facility descriptions in the "project description" for the EIR.
 - c. Thoroughly analyze and discuss potential intake locations, designs and impacts of the proposed Projects on State and federally listed and special status species.
 - d. Mitigate, to the extent feasible, any significant adverse effect on the environment from the proposed project that may result from the movement of White Bass from Nacimiento Reservoir to San Antonio Reservoir or other locations in the Salinas Valley.

- e. Use an integrated groundwater and surface water flow model developed through Monterey County's Salinas River Groundwater Basin Investigation to evaluate reservoir releases that will avoid and minimize the impacts of the projects on downstream habitat. The modeling assumptions and constraints in the analysis shall be clearly outlined in the EIR and discussed as part of the scoping process with CDFW and NMFS. Notwithstanding the prior sentence, the Agency shall make the final determination on all modeling assumptions and constraints.
- IV. CDFW shall serve as a Responsible Agency under CEQA and shall:
 - a. Provide timely comments on drafts of the EIR and any other documents/models circulated to CDFW by the Agency for review and comment.
 - b. CDFW shall commence its process to review and issue the permits needed for the construction and operation of the Projects pursuant to timelines provided in the Fish and Game Code, and where no timelines are provided in Code in a timely manner, given available CDFW staffing and resources, provided that the project to be implemented conforms to the design specifications and drawings requested by CDFW and the Agency has certified its EIR for the Projects.

C. <u>Subsequent Fisheries Monitoring</u>

- I. If financial and staff resources become available for these Projects, two (2) years after the completion of the Tunnel Project, CDFW will commence monitoring for White Bass in both reservoirs, the Salinas River, and relevant tributaries to the Salinas River. CDFW will endeavor to make fisheries monitoring a multiple party activity, including NMFS and other interested and able fisheries and water organizations. The Agency will endeavor to participate in monitoring if financial and staff resources are available.
- II. If any life stage of White Bass are detected in San Antonio Reservoir or the Salinas River, CDFW will consider potential options to: 1) contain; and 2) eradicate White Bass. CDFW shall immediately inform the Agency of the detection and will confer with the Agency and other appropriate fisheries and water management organizations.
 - CDFW and the Agency shall meet and confer to re-evaluate reservoir and tunnel management to determine if different management actions or additional physical attributes to the Project are feasible and would better control White Bass immigration to the San Antonio Reservoir, San Antonio River, or Salinas River. The Agency shall cooperate in CDFW's discussions and planning.

Memorandum of Agreement CDFW & MCWRA Nacimiento Reservoir Interlake Tunnel and San Antonio Spillway Modification Projects

Page 6 of 11

D. If different management actions or additional physical attributes to the projects are identified as feasible and would better control White Bass distribution and movement, the Parties shall meet and confer to determine the most appropriate method for moving forward with implementing such management actions or additional physical attributes, while preserving the Project Objectives as presented in the EIR. At a minimum, the Parties agree to assist each other to identify potential funding sources and the process for acquiring that Funding.

The Agency and CDFW agree that:

- I. The Agency is responsible for costs associated with constructing and implementing the projects as described in the final (certified) EIR and applicable designs approved by the Agency.
- II. Construction of the projects is dependent upon availability of local assessments, supplemented by some state financial assistance. Implementation of design, operational and other project features is dependent upon timely availability of supplemental funding.
- III. Contingent on available funds and staffing becoming available for monitoring, CDFW will lead for fisheries monitoring associated with the reservoirs, the Salinas River, and associated tributaries in the watershed after completion of the Project. CDFW will be responsible for coordinating with the Agency, NMFS, United States Fish and Wildlife Service, and other organization that may be part of such monitoring.
- IV. Within the limitations of its mandates and its resources, and in pursuing the activities undertaken in this MOA, if CDFW becomes aware of funding sources or opportunities that might be available for elements of the Projects, CDFW will bring those opportunities to the attention of the Agency.
- V. In the event the result of the Proposition 218 election identified in Recital F is not affirmative in securing funding for the remaining design and construction of the Projects, then this MOA shall be null and void.

E. <u>Construction</u>

The Agency shall incorporate all the measures proposed by CDFW, reflected in Exhibit A___, to protect against the adverse impacts of expanding White Bass through the tunnel into San Antonio Reservoir.

F. CDFW anticipates that, based on the information it currently has, it will be able to authorize the incidental transfer of White Bass between the Nacimiento and San Antonio Reservoirs under California Fish and Game Code sections 6400 and 6400.5 if the Agency constructs the tunnel incorporating those measures specified in this MOA and in accordance with the mitigation measures appearing in the Tunnel Project's certified EIR to avoid or minimize White Bass passage or survival through the Tunnel Project.

4. <u>General Provisions</u>.

A. No Assignment.

Neither party shall assign or transfer this MOA, or any part thereof, without the written consent of the other Party at least 30 days prior to the assignment or transfer.

B. Independent Contractor.

Nothing in this MOA shall be construed or interpreted to make the Agency or any Agency employee anything but independent contractors and in all the Agency's activities and operations pursuant to this MOA, neither the Agency nor Agency employee shall for any purposes be considered employees or agents of the CDFW.

C. <u>Authority to Bind the CDFW</u>.

It is understood that the Agency, in the performance of any and all duties under this MOA, has no authority to bind the CDFW to any agreements or undertakings with respect to any and all persons or entities with whom the Agency deals in the course of business.

D. Authority to Bind the Agency.

It is understood that the CDFW, in the performance of any and all duties under this MOA, has no authority to bind the Agency to any agreements or undertakings with respect to any and all persons or entities with whom the CDFW deals in the course of business. This section does not affect CDFW's administration and enforcement of the Fish and Game Code including but not limited to issuing permits and approvals under that code.

E. <u>Notices</u>.

I. Notices permitted or required to be given to the respective parties under this MOA shall be deemed given (1) when personally delivered to the Agency or CDFW; (2) when personally delivered to the party's principal place of business during normal business hours (i.e., to the CDFW offices in Sacramento, California, or to the Agency's office in Salinas, California), by leaving the notice with any person apparently in charge of the office and advising such person of the import and contents of the notice; (3) twenty-four (24) hours after the notice is transmitted by fax machine to the other party, to the fax number indicated below; or (4) three (3) days after the notice is deposited in the U.S. mail (by first class, certified, registered, or express mail), with postage fully prepaid, addressed to the party as indicated below. All notices shall be in writing.

II. Notices mailed to the parties shall be addressed as follows:

To CDFW:

Charlton H. Bonham Director California Department of Fish and Wildlife 1416 Ninth Street Sacramento, CA 95814 Phone: 916-653-7667 Fax: 916-653-7387 To the Agency:

David E. Chardavoyne General Manager Monterey County Water Resources Agency 1441 Schilling Place / PO Box 930 Salinas, CA 93901 Phone: 831-755-4860 Fax: 831-424-7935

The mailing addresses, addressees, and fax numbers specified in this paragraph may be changed by either party, by giving notice to the other in the manner provided herein.

F. Modifications.

This MOA may be modified or amended only by prior-to 3-day written agreement of the parties. No waiver or modification of this MOA or of any covenant, condition, or limitation herein contained shall be valid unless in writing and duly executed by the parties hereto.

G. No Waiver.

- I. No covenant or condition of this MOA can be waived except by the written consent of the CDFW. Forbearance or indulgence by the CDFW in any regard whatsoever shall not constitute a waiver of the covenant or condition to be performed by the Agency. The CDFW shall be entitled to invoke any remedy available to the CDFW under this MOA or by law or in equity despite said forbearance or indulgence.
- II. No covenant or condition of this MOA can be waived except by the written consent of the Agency. Forbearance or indulgence by the Agency in any regard whatsoever shall not constitute a waiver of the covenant or condition to be performed by the CDFW. The Agency shall be entitled to invoke any remedy available to the Agency under this MOA or by law or in equity despite said forbearance or indulgence.

H. Sole Agreement.

This MOA contains the entire agreement of the parties relating to the rights herein granted and the obligations herein assumed. Any oral representations or modifications concerning this MOA shall be of no force or effect excepting a subsequent modification in writing, signed by the parties hereto.

I. <u>Venue</u>.

If any party herein initiates an action to enforce the terms hereof or declare rights Hereunder, the parties agree that venue thereof shall be the County of Monterey, State of California.

J. Construed Pursuant to California Law.

The parties hereto agree that the provisions of this MOA will be construed pursuant to the laws of the State of California.

IN WITNESS WHEREOF, CDFW, AGENCY, and COUNTY have caused this Memorandum of Agreement to be executed:

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Dated: Nov. 5, 2018

Maha

Charlton H. Bonham, Director

Dated: 6 December 2018

MONTEREY COUNTY WATER RESOURCES AGENCY

By:

By:

By: David E. Chardavoyne, General Manager

BOARD OF SUPERVISORS OF THE MONTEREY COUNTY WATER RESOURCES AGENCY

Dated: 12 5/18

Luis Alejo, Chair, BOARD OF SUPER VISORS OF THE MONTEREY COUNTY WATER **RESOURCES AGENCY**



Exhibit A

Monterey County Water Resources Agency Interlake Tunnel and Spillway Modification Project

Fish Screen Design Parameters and Operational Criteria (White Bass Exclusion)

The following criteria and parameters guide the design, construction, and operation of a fish screen and water intake structure. The criteria and parameters are reasonably determined to minimize or avoid the passage of White Bass through the proposed Interlake Tunnel using feasible design features and equipment.

The fish screen design requires a rotating cylindrical wedgewire screen with external and internal brush cleaning systems equivalent to screens manufactured by Intake Screens, Inc. (ISI).

Criteria	Units	Value	Comments
Max. Normal Nacimiento Water Surface Elevation (WSEL)	ft	800.0	
Min. Nacimiento Tunnel Operations WSEL	ft	760.0	
Maximum Top of Screen Elevation	ft	760.0	Criterion applies if screen opening size is 0.5 mm, which is expected to provide White Bass exclusion down to the larvae size.
		740.0	Criterion applies if the fish screen opening size is greater than 0.5 mm. This top of screen elevation provides at least 20 ft of submergence for all tunnel operations. This reduces the potential occurrence of White Bass at the tunnel inlet since White Bass are expected to be in the top 20 ft of the water column.
Minimum Bottom of Screen Elevation	ft	728.5	
Average Design Flow	cfs	600	
Maximum Design Flow	cfs	1,400	
Screen Approach Velocity	fps	0.4 - 2.0	
Maximum Added Head Loss	ft	< 2	

1

Screen Opening Size Range	mm	0.5 min – 1.75 max	Preference is given to 0.5 mm since White Bass eggs and larvae can be smaller than 1.75 mm. Typical screen opening size of 1.75 mm in the narrow direction is per NMFS fish screen design criteria which was set for minimizing entrainment of salmonid fry and maximizing fish protection.
Screen Porosity (min)	%	22	
Screen Guides and Seals Gap	mm	0.5 min – 1.75 max	No gaps greater than the maximum screen opening defined above.
Porosity Control (for flow distribution)	-	Yes	
Max. Head Differential for Screen Structural Integrity	ft	10	Provide continuous screening whenever there is tunnel flow. A quick closure feature for the downstream valve at San Antonio Reservoir will be included to shut down tunnel flow if the Maximum Added Head Loss occurs.
Post-Construction Evaluation	-	See comment	 All components of the fish screen will be inspected to verify conformance with the screen opening size criterion. A post construction hydraulic evaluation will be conducted at a high tunnel flow to confirm that the cleaning systems works well at the higher end of the range of design approach velocities.

Criteria	Units	Value	Comments
Tunnel inside diameter	Ft	Not less than 10.0	
Operations and Maintenance Plan	-	See comment	An O&M plan will, at a minimum, outline operational criteria, frequency of inspections and any maintenance requirements.
Fish Screen Cleaning System	-	See comment	External and internal brush cleaning systems capable of operating continuously.
Debris Management System	-	See comment	Floating debris booms at the entrance to the approach channel, trash rack in the intake approach channel, collected debris removal systems.

WSEL = water surface elevation; fps = feet per second, cfs = cubic feet per second, ft = feet, in = inch, mm = millimeter, % = percent NMFS = National Marine Fisheries Service MCWRA = Monterey County Water Resource Agency

Before the Board of Supervisors of the Monterey County Water Resources Agency County of Monterey, State of California

Resolution No. _____ Resolution of the Monterey County Water Resources Board of Supervisors to:

Authorize and direct the General Manager to execute a grant agreement with California Department of Fish and Wildlife in the amount of Seventeen (\$17) million dollars for the design and construction of a Fish Exclusion System screens in conjunction with the Interlake Tunnel Project

WHEREAS, the Monterey County Water Resources Agency entered into a Memorandum of Agreement in 2018 with the California Department of Fish and Wildlife regarding the design and construction of a Fish Exclusion System in conjunction with the Interlake Tunnel Project; and

WHEREAS, the California executed budget for Fiscal Year 19/20 included \$17 million dollars for a Fish Exclusion System (fish screens); and

WHEREAS, the grant agreement conditions use of these funds until MCWRA has: (1) received all necessary project approvals; (2) complied with the California Environmental Quality Act; and (3) secured all necessary funding for the Project; and

WHEREAS, in order to secure these funds an executed agreement must be in place by June 30, 2021.

NOW THEREFORE, BE IT RESOLVED, that the Monterey County Water Resources Agency Board of Supervisors hereby:

a. Authorizes and directs the General Manager, or designee, to execute a grant agreement with California Department of Fish and Wildlife,

c. Authorizes the General Manager, or designee, subject to review and approval by County Counsel to execute up to three (3) amendments to the Grant Agreement that do not materially alter the terms of the Grant Agreement.

PASSED AND ADOPTED on this _____ day of March 2021, by the following vote, to wit:

AYES: NOES: ABSENT: Dated:

Valerie Ralph, Clerk of the Board of Supervisors County of Monterey, State of California

By _____ Deputy



Before the Board of Directors of the Monterey County Water Resources Agency

County of Monterey, State of California

BOARD ORDER No.

RECOMMEND THAT THE MONTEREY COUNTY WATER
RESOURCES AGENCY BOARD OF SUPERVISORS ADOPT
A RESOLUTION AUTHORIZING AND DIRECTING THE
GENERAL MANAGER TO ENTER INTO A GRANT AGREEMENT
WITH THE CALIFORNIA DEPARTMENT OF FISH AND
WILDLIFE TO RECEIVE A GRANT OF \$17 MILLION DOLLARS
FOR THE CONSTRUCTION OF A FISH EXCLUSION SYSTEM IN
CONJUNCTION WITH THE INTERLAKE TUNNEL
CONSTRUCTION

Upon motion of Director _____, seconded by Director _____, and carried by those members present, the Board of Directors hereby:

Recommends that the Monterey County Water Resources Agency Board of Supervisors adopt a resolution authorizing and directing the General Manager to enter into a grant agreement with the California Department of Fish and Wildlife to receive a grant of \$17 million dollars for the construction of a Fish Exclusion System in conjunction with the Interlake Tunnel construction.

PASSED AND ADOPTED on this **16th** day of **February 2021**, by the following vote, towit:

AYES:

NOES:

ABSENT:



Monterey County

Board Report

Legistar File Number: WRAG 21-041

February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor Salinas, CA 93901

Item No.8

Introduced: 2/8/2021

Version: 1

Current Status: Agenda Ready Matter Type: WR General Agenda

Consider receiving a report on the Groundwater Extraction Management System (GEMS) 2019 Groundwater Extraction Summary Report.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors: Consider receiving a report on the Groundwater Extraction Management System (GEMS) 2019 Groundwater Extraction Summary Report.

SUMMARY:

Staff has prepared the 2019 Groundwater Extraction Summary Report. This report includes Staff's analysis and the summation of extraction data collected through the GEMS Program. This annual report is updated each year with the recently collected data.

DISCUSSION:

The Groundwater Extraction Summary Report is produced annually and provides a summary overview and discussion of groundwater extraction information from over 1,800 groundwater wells, with information broken down by subarea and crop type (Attachment 1). It also provides a summary of the forecasted conservation practices for both agricultural and urban entities.

OTHER AGENCY INVOLVEMENT:

The Basin Management Advisory Committee received this report on February 3rd, 2021.

FINANCING:

There is no financial impact for receiving this report. The activities associated with completing this report is funded through Fund 116 and included in each year's budget.

Prepared by: Tamara Voss, Associate Hydrologist, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

2019 Groundwater Extraction Summary Report - Provisional



Monterey County

Board Report

Legistar File Number: WRAG 21-041

February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor Salinas, CA 93901

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Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

2019 Groundwater Extraction Summary Report - Provisional
2019

Groundwater Extraction Summary Report





Monterey County Water Resources Agency January 2021



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Overview of the Groundwater Reporting Program

History of the Groundwater Reporting Program

In 1993, the Monterey County Board of Supervisors adopted Ordinances No. 3717 and 3718 that require water suppliers within Zones 2, 2A, and 2B to report water-use information for groundwater extraction facilities (wells) and service connections, with a discharge pipe having an inside diameter of at least three inches, to the Monterey County Water Resources Agency (Agency).

The purpose of the Groundwater Reporting Program is to provide the Agency with the most accurate water-use information available to effectively manage groundwater resources. In order to obtain accurate water pumping information, methods of directly measuring water extractions have been implemented. The Agency collects groundwater extraction data from well operators annually for a period beginning November 1 and ending October 31 ("reporting year"). Data collection began with the 1992-1993 reporting year. Information submitted by than three hundred well operators in Agency management zones of the Salinas Valley (Figure 1) is stored in an Agency database.

Since 1991, the Agency has required the annual submittal of Agricultural Water Conservation Plans (Ordinance 3851), which outline the best management practices (BMPs) that are to be adopted each year by growers in the Salinas Valley. In 1996, an ordinance was passed that requires the filing of Urban Water Conservation Plans (Ordinance 3886). Developed as the urban counterpart of the agricultural water conservation plans, this program provides an overview of the BMPs to



be implemented by urban water purveyors as conservation measures.

For management purposes, the Agency divides a portion of the Salinas Valley Groundwater Basin into four hydrologic subareas or zones: Pressure, East Side, Forebay, and Upper Valley. These subareas are hydrologically and hydraulically connected, and their boundaries are defined by differences in local hydrogeology and recharge.

Figure 1. Salinas Valley Groundwater Basin Subareas and Agency Zones

Groundwater Summary Report

The purpose of this report is to summarize the data submitted to the Agency by well operators in February 2020 from the following annual forms:

- Groundwater Extraction Forms (agricultural and urban)
- Water Conservation Plans (agricultural and urban)
- Water and Land Use Forms (agricultural)

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The agricultural data from the groundwater extraction program covers the reporting year of November 1, 2018, through October 31, 2019; the urban data covers calendar year 2019. The agricultural and urban water conservation plans for 2020 are also summarized. This report is intended to present a synopsis of current water extraction within the Salinas Valley, including agricultural and urban water conservation improvements that are being implemented to reduce the total amount of water pumped. It is not the purpose of this report to thoroughly analyze the factors that contribute to increases or decreases in pumping.

Reporting Format

Groundwater extraction data are presented in this report by measurement in acre-feet (AF). One acre-foot is equal to 325,851 gallons.

Reporting Methods

The Groundwater Reporting Program provides well operators with a choice of three different reporting methods: Water Flowmeter, Electrical Meter, or Hour Meter (timer). The summary of groundwater extractions presented in this report is compiled from data generated by all three reporting methods. Ordinance 3717 requires annual pump efficiency tests and/or meter calibration of each well to ensure the accuracy of the data reported. The distribution of methods used for the 2019 reporting year was: 82% Flowmeter; 17% Electrical Meter and <1% Hour Meter.



Disclaimer

While the Agency has made every effort to ensure the accuracy of the data presented in this report, it should be noted that the data are submitted by individual reporting parties. In addition, since so many factors can affect the extraction calibration, it is understood that no reporting method is 100 percent accurate. The Agency maintains strict quality assurance in the compilation, standardization, and entry of the data received. Changes to historical data may occur due to additional submittals after the due date. Rounding errors may cause the total extraction values displayed to be within 5 AF of actual totals. The Agency received Groundwater Extraction Reports from ninetyfive percent (95%) of the 1,858 wells in Zones 2. 2A. and 2B of the Salinas Vallev for the 2019 reporting year. Agricultural and Urban Water Conservation Plan submittal compliance for 2020 was eighty-two percent (82%) ninetythree percent (93%), respectively.

Groundwater Extraction Form – Data Summary

Total Extractions by Subarea and Type of Use

All data presented in this section are derived from the agricultural and urban Groundwater Extraction Forms.

Subarea	Agricultural Pumping (AF)	Urban Pumping (AF)	Total Pumping (AF)
Pressure	93,829	15,885	109,714
East Side	73,006	12,822	85,828
Forebay	124,600	7,374	131,974
Upper Valley	119,477	3,430	122,907
Total (AF)	410,912	39,511	450,423
Percent of Total	91.2%	8.8%	100.0%

Table 1. Extraction Data by Subarea and Type of Use.



Urban Extraction Data by City or Area

The total groundwater extractions attributed to urban use include residential, commercial, institutional, industrial and governmental pumping, and are summarized below.



Table 2. Urban Extractions by City or Area

City or Area	Urban Pumping (AF)	Percentage		
Castroville	767	1.94%		
Chualar	107	0.27%		
Gonzales	1,573	3.98%		
Greenfield	1,811	4.58%		
King City	2,495	6.32%		
Marina	3,224	8.16%		
Salinas	17,382	44.00%		
San Ardo	128	0.32%		
San Lucas	39	0.10%		
Soledad	2,692	6 .81%		
Soledad Prisons	1,813	4.59%		
OA- Pressure	3,656	9.25%		
OA- East Side	1,998	5.06%		
OA- Forebay	1,057	2.68%		
OA- Upper Valley	767	1.94%		
Total	39,509	100.00%		

OA=Other Area

Total Groundwater Extractions in Zones 2, 2A, 2B

This figure provides a spatial representation of groundwater extractions within Zones 2, 2A, and 2B for the 2019 reporting year. The figures and tables on the next four pages provide extraction information by subarea. The number of wells shown in Figures 4 to 11 may be different than the total number of wells in the program, as stated on Page 2. This is due to delinquent extraction reports and the exact location of some wells being unknown.



Figure 4. 2019 Groundwater Extractions (AF).



Pressure Subarea – Extraction Data

Figure 5. 2019 Groundwater Extraction in the Pressure Subarea.



Year	Agricultural Pumping (AF)	Urban Pumping (AF)	Total Pumping (AF)		
2015	109,214	14,443	123,657		
2016	98,890	14,605	113,495		
2017	91,901	15,523	107,424		
2018	92,010	17,246	109,256		
2019	93,829	15,885	109,714		

Table 3. Total, Agricultural, and Urban Extractions(AF) in the Pressure Subarea 2015-2019.

Figure 6. Agricultural and Urban Extractions (AF) in the Pressure Subarea 2015-2019.

CSIP, Zone 2B and Area of Impact- Extraction Data

The Castroville Seawater Intrusion Project (CSIP) delivers recycled water from the Salinas Valley Reclamation Project, treated Salinas River water from the Salinas River Diversion Facility, and groundwater from ten supplemental wells to 12,000 acres of irrigated land in the Castroville area, referred to as Zone 2B, in an effort to reduce groundwater pumping near the coast. Pumping from non- CSIP supplemental wells has decreased since CSIP began operations in 1998 but is still occurring (Figure 8). The Area of Impact encompasses the region where chloride concentrations in the 180-Ft and 400-Ft Aquifers are 250 mg/L or greater. Groundwater within the Area of Impact is considered vulnerable due to the presence of pathways for seawater intrusion (Figure 7, Table 4).



Figure 7. 2019 Groundwater Extraction (AF) in the Area of Impact.





Deep Aquifers – Extraction Data

The first production well in the Deep Aquifers was installed in 1974. As of December 2020, fifty-seven wells have been installed in the Deep Aquifers, with seventeen installed in the last three years (Figure 9). Twelve out of these seventeen wells have not yet to begun report extractions as of 2019. Similar to the number of wells installed, the amount of water extracted from the Deep Aquifers has increased in recent years (Figure 10, Table 5). The potential for inducing leakage from the overlying impaired aquifers is a growing concern as groundwater extractions from the Deep Aquifers continue to increase.



Figure 9. Deep Aquifers wells by Year Drilled and Type of Use

Table 5. Deep Aquifer GroundwaterExtractions by Type of Use, 1993-2019

Pumping

(AF)

3,561

4,612

4,338

4,127

4,726

3.554

2,151

2,306

2.368

2,416

2.745

2,747

2,701

2.341

2,189

2.759

3,146

3,218

3,100

3,821

3.602

6,435

6,373

8.552

9,516

9.645

10,347

Pumping

(AF)

2,054

1,992

2,036

2,137

2,170

1.906

2,055

2,305

2 368

2,416

2,745

2,747

2,701

2,341

2,131

2,375

2,450

2,236

2,173

2,424

2,505

4,404

4,363

4 2 5 9

4,558

4.790

5,016



Figure 10. Deep Aquifer Groundwater Extractions by Type of Use, 1993-2019



East Side Subarea – Extraction Data

Figure 11. 2019 Groundwater Extraction in the East Side Subarea.



Year	Agricultural Pumping (AF)	Urban Pumping (AF)	Total Pumping (AF)		
2015	91,491	12,631	104,122		
2016	80,379	11,802	92,181		
2017	77,353	13,258	90,611		
2018	75,629	13,938	89,567		
2019	73,006	12,822	85,828		

Table 6. Total, Agricultural, and Urban Extractions(AF) in the East Side Subarea 2015-2019.

Figure 12. Agricultural and Urban Extractions (AF) in the East Side Subarea 2015-2019.



Forebay Subarea – Extraction Data

Figure 13. 2019 Groundwater Extraction in the Forebay Subarea.



Year	Agricultural Pumping (AF)	Urban Pumping (AF)	Total Pumping (AF)
2015	142,668	6,221	148,889
2016	141,163	4,866	146,029
2017	139,359	6,764	146,123
2018	138,838	7,303	146,141
2019	124,600	7,374	131,974

Table 7. Total, Agricultural, and Urban Extractions(AF) in the Forebay Subarea 2015-2019.

Figure 14. Agricultural and Urban Extractions (AF) in the Forebay Subarea 2015-2019.



Upper Valley Subarea – Extraction Data

Figure 15. 2019 Groundwater Extraction in the Upper Valley Subarea



Year	Agricultural Pumping (AF)	Urban Pumping (AF)	Total Pumping (AF)
2015	134,740	3,306	138,046
2016	124,678	2,991	127,669
2017	123,446	3,407	126,853
2018	126,919	3,418	130,337
2019	119,477	3,430	122,907

Table 8. Total, Agricultural, and Urban Extractions(AF) in the Upper Valley Subarea 2015-2019.

Figure 16. Agricultural and Urban Extractions (AF) in the Upper Valley Subarea 2015-2019.

Agricultural Water Conservation – Data Summary

The Agricultural Water Conservation Plans include information on net irrigated acreage, irrigation methods, and crop type. This information is forecasted and indicates what the grower plans to do in the upcoming year. The first figure (17) and table (9) present a breakdown of irrigation methods by crop type. The next figure (18) shows the change in irrigation methods over the length of the program and the final figure (19) shows the top ten Best Management Practices (BMPs) to be implemented in 2020.





2020	Furrow	Sprinkler & Furrow	Hand Move Sprinklers	Solid Set Sprinklers	Linear Move	Drip	Other	Total
Vegetables	0	10,602	15,679	13,096	194	85,609	104	125,284
Field Crops	0	445	149	0	0	393	0	987
Berries	0	0	0	0	0	4,898	0	4,898
Grapes	0	0	0	39	0	41,500	0	41,539
Tree Crops	0	0	0	0	0	1,843	0	1,843
Forage Crop	0	0	126	0	5	0	0	131
Other Crop	0	0	366	288	0	316	0	970
Unirrigated								2,037
Total	0	11,047	16,321	13,423	199	134,560	104	177,690

 Table 9. Net Acres by Irrigation Method and Crop Type.



Figure 18. Changes in Irrigation Methods Used Over Time (1993 – 2020) in Zones 2, 2A, and 2B.



Figure 19. Top Ten BMPs Forecasted for 2020 Based on Reported Net Acres.

Water and Land Use Form – Data Summary

The following three figures show the agricultural water extracted (Fig. 20), irrigated net acres (Fig. 21), and amount of water used per acre (Fig. 22) by hydrologic subarea and crop type based on data submitted on the Water and Land Use forms. The data account for all crop types reported and all reporting methods: water flowmeter, electrical meter, and hour meter.

Changing weather patterns, variable soil types, and crop types affect the amount of water needed for efficient irrigation. Even during a normal rain year, pumping rates will vary from one subarea to another and crop types will vary depending on economic demand.

Examples of Crop Type categorizations include: strawberries and raspberries under Berries; beans and grains under Field Crops; alfalfa and pasture under Forage Crops; avocados and lemons under Tree Crops; and sod, flower bulbs, ornamentals, and cactus pears under Other Crops.



2019	Berries (AF)	Field (AF)	Forage (AF)	Grapes (AF)	Nursery (AF)	Cannabis (AF)	Other (AF)	Trees (AF)	Vegetables (AF)
Pressure	6,484	293	12.1	764	-	-	1,811	1,624	77,667
East Side	6,448	217	-	2,951	1,301	710	503	148	56,232
Forebay	-	87.8	-	20,345	-	-	1,053	1,351	100,599
Upper Valley	-	484	13.6	22,044	-	-	-	831	87,789

Figure 20. 2019 Extractions Reported by Crop Type and Subarea.



Figure 21. 2019 Irrigated Net Acres Reported by Crop Type and Subarea.



2019	Berries (AF/Acre)	Field (AF/Acre)	Forage (AF/Acre)	Grapes (AF/Acre)	Nursery (AF/Acre)	Cannabis (AF/Acre)	Other (AF/Acre)	Trees (AF/Acre)	Vegetables (AF/Acre)
Pressure	2.5	2.6	0.9	0.5	-	-	3.1	3.9	2.1
East Side	2.4	1.7	-	1.0	2.6	9.0	1.4	3.0	2.2
Forebay	-	2.3	-	1.2	-	-	3.6	1.3	2.8
Upper Valley	-	2.5	0.1	1.1	-	-	-	2.2	2.6

Figure 22. 2019 Acre-Feet/Acre by Crop Type and Subarea.

Urban Water Conservation – Data Summary

Since 1996, the Agency has collected data on the Urban Water Conservation Plan program. Tables 10 and 11 show the top ten Best Management Practices (BMPs) for 2020, as a percentage of total acreage reported for "large" water systems (200 or more customer connections), and "small" water systems (between 15 and 199 customer connections). Tables 12 and 13, and figures 23 and 24 give the reported Water Use per Connection for different Connection Classes for both "large" and "small" water systems.

Table 10. Top Ten BMPs – Large Water Systems.	
Top Ten BMPs Implemented for Large Water Systems	2020
Advise customers when it appears possible that leaks exist on customer's side of water meter	100%
Complete an audit of water distribution system at least every three years as prescribed by American Water Works Association	100%
Implement requirements that all new connections be metered and billed by volume of use	100%
Enforcement and support of water conserving plumbing fixture standards, including gradual requirement for High Efficiency Toilets (HET) in all new construction	99%
Perform distribution system leak detection and repair whenever the audit reveals that it would be cost-effective	97%
Provide conservation information in bill inserts	92%
Coordinate with other entities in regional efforts to promote water conservation practices	92%
Support of legislation prohibiting sale of toilets using more than 1.6 gpf	92%
Offer free interior and exterior water audits to identify water conservation opportunities	90%
Provide speakers to community groups and media	89%

Table 11. Top Ten BMPs - Small Water Systems.

_ _

Top Ten BMPs Implemented for Small Water Systems	2020
Perform distribution system leak detection and repair whenever the audit reveals that it would be cost-effective	99%
Complete an audit of water distribution system at least every three years as prescribed by American Water Works Association	96%
Advise customers when it appears possible that leaks exist on customer's side of water meter	94%
Implement requirements that all new connections be metered and billed by volume of use	93%
Establish a program to retrofit any existing unmetered connections and bill by volume of use	91%
Provide conservation information in bill inserts	81%
Encourage local nurseries to promote use of low water use plants	71%
Support of legislation prohibiting sale of toilets using more than 1.6 gpf	69%
Provide individual historical water use information on water bills	<mark>62</mark> %
Enact and enforce measure prohibiting water waste as specified in Monterey County Water Resources Agency Ordinance No. 3932 or as subsequently amended, and encourage the efficient use of water	50%

Small Water Systems: Water Use (AF) Per Connection Class	2015	2016	2017	2018	2019
Single-Family Residential	0.416	0.426	0.516	0.411	0.429
Multi-Family Residential	0.603	0.640	0.689	0.567	0.763
Commercial/ Institutional	0.963	0.709	0.940	0.769	0.864
Industrial	5.001	12.652	12.562	12.055	84.342
Landscape Irrigation	1.945	1.100	1.934	3.220	3.559
Other	1.130	0.454	1.098	2.819	3.066





2015	2016	2017	2018	2019
0.314	0.274	0.292	0.282	0.277
1.296	0.858	1.026	0.892	0.827
0.965	1.579	1.583	1.635	1.553
3.910	15.491	15.718	19.879	18.712
4.828	1.195	2.138	2.157	2.133
-	38.649	21.223	87.650	110.451
15.591	1.9 <mark>1</mark> 8	0.934	2.382	2.034
	2015 0.314 1.296 0.965 3.910 4.828 - 15.591	201520160.3140.2741.2960.8580.9651.5793.91015.4914.8281.195-38.64915.5911.918	2015201620170.3140.2740.2921.2960.8581.0260.9651.5791.5833.91015.49115.7184.8281.1952.138-38.64921.22315.5911.9180.934	20152016201720180.3140.2740.2920.2821.2960.8581.0260.8920.9651.5791.5831.6353.91015.49115.71819.8794.8281.1952.1382.157-38.64921.22387.65015.5911.9180.9342.382

Table 13. Water Use per Connection – Large Water Systems (2015-2019).



Monterey County Board of Supervisors

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Monterey County Water Resources Agency

Brent Buche, General Manager Elizabeth Krafft, Deputy General Manager

Groundwater Extraction Summary Report Team

Howard Franklin, Senior Hydrologist Tamara Voss, Associate Hydrologist Nicole Koerth, Water Resources Hydrologist Marinn Browne, Water Resources Technician

For more information, contact:

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www.mcwra.co.monterey.ca.us



Before the Board of Directors of the Monterey County Water Resources Agency

County of Monterey, State of California

BOARD ORDER No.

Consider receiving a report on the Groundwater Extraction)Management System (GEMS) 2019 Groundwater)Extraction Summary Report.)

PASSED AND ADOPTED on this 16th day of February 2021, by the following vote, to-wit:

AYES:

NOES:

ABSENT:

BY: Chair Board of Directors ATTEST: Brent Buche General Manager



Monterey County

Board Report

Legistar File Number: WRAG 21-042

Item No.9

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/8/2021

Version: 1

Current Status: Agenda Ready Matter Type: WR General Agenda

Consider receiving a report on the addition of a Deep Aquifers Addendum to the Salinas Valley Water Conditions Report.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Receive a report on the addition of a Deep Aquifers Addendum to the Salinas Valley Water Conditions Report.

SUMMARY:

Staff has prepared a Deep Aquifers Addendum to the Salinas Valley Water Conditions Report (Quarterly Conditions Report). This addendum includes Staff's analysis and discussion of current Deep Aquifer conditions and will be updated every quarter with more information. This is being done in preparation of selecting a subset of wells to represent the Deep Aquifers in the Quarterly Conditions Report, beginning next water year.

DISCUSSION:

The Quarterly Conditions Report is produced every quarter of the water year and provides a brief overview and discussion of water conditions including precipitation, reservoir storage and groundwater level trends (Attachment 1). More than 100 wells are measured each month to monitor seasonal groundwater level fluctuations in the Salinas Valley. A subset of wells is used to generate average groundwater levels for each aquifer or subarea. Currently, the Quarterly Conditions Report does not include the Deep Aquifers.

Staff has prepared a Deep Aquifers Addendum to the Quarterly Conditions Report (Attachment 2). This addendum includes Staff's analysis and discussion of current Deep Aquifer data and will be updated every quarter. The first version includes information on the wells being considered to represent the Deep Aquifers, current groundwater levels and trends of these wells, and discussion on the vertical hydraulic gradient between the Deep and overlying aquifers. This information is being presented while Staff continues to analyze which data will be used to represent groundwater level trends in the Deep Aquifers for the Quarterly Conditions Report, beginning next water year 2021-2022.

OTHER AGENCY INVOLVEMENT:

The Basin Management Advisory Committee received this report on February 3rd, 2021.

FINANCING:

There is no financial impact for receiving this report.

Prepared by: Howard Franklin, Senior Hydrologist, (831) 755-4860)
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Approved by: Brent Buche, General Manager (831) 755-4860

Attachments:

1. Salinas Valley Water Conditions for the First Quarter of Water Year 2020-2021

2. Deep Aquifers Addendum to the Salinas Valley Water Conditions, First Quarter of Water Year 2020-2021



Monterey County

Board Report

Legistar File Number: WRAG 21-042

Salinas, CA 93901 February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor

Item No.

Introduced: 2/8/2021

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FINANCING:

There is no financial impact for receiving this report.

Prepared by:	Howard Franklin,	Senior Hydrologist,	(831) 755-4860

Approved by: Brent Buche, General Manager (831) 755-4860

Attachments:

1. Salinas Valley Water Conditions for the First Quarter of Water Year 2020-2021

2. Deep Aquifers Addendum to the Salinas Valley Water Conditions, First Quarter of Water Year 2020-2021

Receive Report on Salinas Valley Water Conditions for the First Quarter of Water Year 2020-2021

SUMMARY/DISCUSSION:

Groundwater level data provides insight on how an aquifer or subarea responds to hydrologic conditions, such as precipitation and reservoir releases, over time. A one-year comparison can show the short-term effects of a single wet or dry year while a long-term comparison will help provide information on general trends in groundwater storage. Subareas or aquifers will respond differently to these hydrologic conditions. For example, groundwater levels in shallower aquifers may respond quicker to a wet season while aquifers that are deeper or more depleted may take longer for groundwater levels to respond and recover.

This report covers the first quarter of Water Year 2020-2021 (WY21), October through December 2020. It provides a brief overview and discussion of hydrologic conditions in the Salinas Valley including precipitation, reservoir storage and groundwater level trends.

<u>Precipitation</u> – Preliminary National Weather Service rainfall data indicates that the first quarter of WY21 brought below normal rainfall to Salinas and King City. Totals for the quarter were 0.94 inches (24% of normal rainfall of 3.91 inches for the quarter) at the Salinas Airport, and 1.1 inches (30% of normal rainfall of 3.72 inches for the quarter) in King City.

Attachment B contains graphs for both stations showing monthly and cumulative precipitation data for the current and a "normal" water year, based on long-term monthly precipitation averages. Attachment B also includes tables showing values for precipitation totals as well as percent of "normal" precipitation.

<u>Reservoirs</u> - The following table compares first quarter storage at Nacimiento and San Antonio reservoirs for the past two years. Storage in Nacimiento Reservoir is 110,445 acre-feet lower than in December 2019, and storage in San Antonio Reservoir is 68,957 acre-feet lower.

Reservoir	December 31, 2020 (WY21) Storage in acre-feet	December 31, 2019 (WY20) Storage in acre-feet	Difference in acre-feet
Nacimiento	83,960	194,405	-110,445
San Antonio	53,268	122,225	-68,957

Graphs showing daily reservoir storage for the last five water years along with 30-year average daily storage for comparison are included as Attachments C and D.

<u>Groundwater Levels</u> – More than 100 wells are measured monthly throughout the Salinas Valley to monitor seasonal groundwater level fluctuations. Data from approximately 50 of these wells are used in the preparation of this report. The measurements are categorized by hydrologic subarea, averaged, and graphed to compare current water levels (WY21) with selected past conditions. Graphs for individual subareas, showing the current year's water level conditions, last year's conditions (WY20) and dry conditions (WY15) are found in Attachments E through I. For

comparison to long term conditions, a curve showing monthly water levels averaged over the most recent 30 years (WY1990-WY2020) is included on each graph. Attachment J is a summary of water level changes for all subareas.

180-Foot Aquifer: Over the last quarter, groundwater levels rose seven feet in the 180-Foot Aquifer. Groundwater levels are down two feet compared to December 2020 levels and down four feet from the 30-year average. Attachment E shows monthly groundwater trends for the 180-Foot Aquifer.

400-Foot Aquifer: Over the last quarter, groundwater elevations increased ten feet in the 400-Foot Aquifer. Groundwater levels are down two feet compared to December 2020 and down one foot from the 30-year average. Attachment F shows monthly groundwater trends for the 400-Foot Aquifer.

East Side Subarea: East Side groundwater levels increased twenty-two feet over the last quarter. Groundwater levels are down four feet from December 2020 levels and down eleven feet from the 30-year average. The East Side is the only subarea whose groundwater levels during the first quarter of WY21 remain below to what they were in WY15 (dry conditions). Attachment G shows monthly groundwater trends for the East Side Subarea.

Forebay Subarea: Over the last quarter, groundwater levels have increased two feet in the Forebay. Groundwater levels are down two feet from December 2020 levels and are less than a foot higher than the 30-year average. Attachment H shows monthly groundwater trends for the Forebay Subarea.

Upper Valley Subarea: Upper Valley groundwater levels have increased one foot over the last quarter. Groundwater levels are down two feet compared to December 2020 and down one foot from the 30-year average. Attachment I shows monthly groundwater trends for the Upper Valley Subarea.

OTHER AGENCY INVOLVEMENT: None

<u>FINANCING</u>: Funds 113, 114, 115, 116

Prepared by: Howard Franklin, Senior Hydrologist, (831) 755-4860 Tamara Voss, Associate Hydrologist, (831)755-4860 Amy Woodrow, Hydrologist (831) 755-4860 Nicole Koerth, Hydrologist (831) 755-4860 Guillermo Diaz Moreno, Water Resource Technician (831) 755- 4860

Approved by:

Brent Buche, General Manager, (831) 755-4860

Attachments:

- 1. Attachment A, Salinas Valley Hydrologic Subareas Map
- 2. Attachment B, Salinas and King City Precipitation Graphs
- 3. Attachment C, Nacimiento Reservoir Graph
- 4. Attachment D, San Antonio Reservoir Graph
- 5. Attachment E, Groundwater Trends 180-Foot Aquifer
- 6. Attachment F, Groundwater Trends 400-Foot Aquifer
- 7. Attachment G, Groundwater Trends East Side Subarea
- 8. Attachment H, Groundwater Trends Forebay Subarea
- 9. Attachment I, Groundwater Trends Upper Valley Subarea
- 10. Attachment J, Groundwater Trends Summary







*Average precipitation over the most recent 30-year period ending in a decade (1981-2010)

ATTACHMENT B

NACIMIENTO RESERVOIR DAILY STORAGE



ATTACHMENT C

SAN ANTONIO RESERVOIR DAILY STORAGE



ATTACHMENT D



GROUNDWATER TRENDS 180-FOOT AQUIFER 8 Wells

ATTACHMENT E



GROUNDWATER TRENDS 400-FOOT AQUIFER 12 Wells

ATTACHMENT F


GROUNDWATER TRENDS EAST SIDE SUBAREA 12 Wells

ATTACHMENT G

GROUNDWATER TRENDS FOREBAY SUBAREA 13 Wells



ATTACHMENT H



GROUNDWATER TRENDS UPPER VALLEY SUBAREA 9 Wells

ATTACHMENT I

Groundwater Trends Summary December 2020

Area	December 2020 Groundwater Elevation (ft msl)	Change over First Quarter	1 Year Change	Difference from 30 year Average Elevation
180-Foot Aquifer	7'	Up 7 '	Down 2 '	Down 4 '
400-Foot Aquifer	0 '	Up 10 '	Down 2 '	Down 1 '
East Side Subarea	-9 '	Up 22 '	Down 4 '	Down 11 '
Forebay Subarea	158 '	Up 2 '	Down 2 '	Up < 1 '
Upper Valley Subarea	314 '	Up 1 '	Down 2 '	Down 1 '

Deep Aquifers Addendum to the Salinas Valley Water Conditions First Quarter of Water Year 2020-2021

1. Background of the Deep Aquifers

The Deep Aquifers are formational aquifers, consisting of several aquifer units within the Paso Robles Formation, Purisima Formation, and Santa Margarita Sandstone. A lot about the Deep Aquifers is still unknown, including the extent of these formations that are productive waterbearing unit in the Salinas Valley, the hydrogeologic properties of the aquifer units, what separates each aquifer unit from each other, and what separates the Deep Aquifers from the overlying 400-Ft Aquifer.

The Paso Robles Formation (Paso Robles) is a Pliocene- Pleistocene unit that consists of lenticular beds of sands, gravel, silts and clays. Potential depositional environments of these layers includes alluvial fan or braided stream¹, by the ancient Salinas River², and alluvial fan, lake and floodplain deposits³. The Paso Robles outcrops in 37,500 acres of Monterey County, including the El Toro area and west side of the Salinas Valley⁴. The Paso Robles is also exposed at the land surface in San Luis Obispo County. The lower portions of the 400-Ft Aquifer and upper portions of the Deep Aquifers are in the Paso Robles formation. The degree of hydrologic separation between these is unknown.

The Purisima Formation (Purisima) is a Pleistocene aged, shallow marine unit composed of clays and shale¹, siltstone, sandstone, and conglomerates⁵. Micro-fossils from Purisima core samples indicate a marine shelf environment around 0-150 feet below sea level⁶. In geologic logs, a shift to more clays, particularly blue clays, and shales seen are a good indicator of this shift to a marine deposited environment. The Purisima outcrops on the southwest side of the Monterey submarine canyon, as well as on land in Santa Cruz County⁴. The Purisima is not exposed on land in Monterey County.

The Santa Margarita Sandstone (Santa Margarita) is a late Miocene deposited, shallow marine friable arkosic sandstone unit⁵. Some studies describe this as a transgressive sandstone unit⁴. The Santa Margarita can be seen below the Purisima, or below the Paso Robles where the Purisima is absent.

¹ Harding ESE. 2001. *Final Report Hydrogeologic Investigation of the Salinas Valley Basin in the Vicinity of Fort Ord and Marina Salinas Valley, California.*

² Thorup, Richard R. 1976. Report on Castroville Irrigation Project Deep Test Hole and Freshwater Bearing Strata Below the Pressure 400-Foot Aquifer, Salinas Valley, CA.

³ Greene, H.G. 1970. Geology of Southern Monterey Bay and its Relationship to the Ground Water Basin and Sea Water Intrusion. U.S. Geological Survey, 50 p.

⁴ Feeney, M.B., and L.I. Rosenberg. 2003. *Technical Memorandum- Deep Aquifer Investigation- Hydrogeologic Data Inventory, Review, Interpretation and Implications*. 40 p.

⁵ Greene, H.G. 1977. *Geology of Southern Monterey Bay Region*. U.S. Geological Survey, 347 p.

⁶ Hanson, R.T., Rhett R. Everett, Mark W. Newhouse, Steven M. Crawford, M. Isabel Pimentel, and Gregory Smith. 2002.

Geohydrology of a Deep-Aquifer System Monitoring Well Site at Marina, Monterey County, California. U.S. Geological Survey, 289 p.

Purpose of this Addendum

The Salinas Valley Water Conditions Report (Quarterly Conditions Report), produced every quarter of the water year, provides a brief overview and discussion of water conditions including precipitation, reservoir storage and groundwater level trends. More than 100 wells are measured each month to monitor seasonal groundwater level fluctuations in the Salinas Valley. A subset of wells is used to generate average groundwater levels for each aquifer or subarea. Currently, the Quarterly Conditions Report does not include the Deep Aquifers. This addendum will show Staff's analysis of current Deep Aquifers conditions and trends and will be updated every quarter. This information is being presented while Staff continues to analyze which data will be used to represent groundwater level trends in the Deep Aquifers for the Quarterly Conditions Report.

2. Groundwater Levels

Staff collects groundwater levels from thirty-two Deep Aquifers wells on a monthly basis. In addition, seven Deep Aquifers monitoring wells have pressure transducers which collect hourly groundwater level data. Three groups of Deep Aquifers wells are discussed below; wells in the Deep Aquifers in the Paso Robles Formation, wells in the Deep Aquifers in the Purisima Formation, and a Deep Aquifers set using both the Paso Robles and Purisima wells.

Paso Robles Groundwater Levels

Eight wells have been identified to represent the Deep Aquifers in the Paso Robles Formation (Table 1). The screened formation of each well was identified in previous reports or was made by Staff based on interpretation of geologic logs and geophysical logs if available. The depths of these wells range from 840 feet below ground surface (ft-bgs) ft-bgs to 1605 ft-bgs, with screened intervals ranging from 600 ft-bgs to 1600 ft-bgs. These wells were selected because there is a long period of consecutive monthly groundwater level measurements to use for this analysis. Wells with a shorter, but still consistent, period of record were included if the location helped expand spatial coverage of Paso Robles wells (Figure 1).

	Table 1. Paso Robles Deep Aquifer Wells								
State Well ID	Facility Code	Year Drilled	GSE (ft-msl)	Depth (ft-bgs)	Screened Interval (ft-bgs)	Screened Formation	Monthly Groundwater Level Period of Record ⁴		
13S/02E-19Q03	75	1980	13	1562	1280-1550	Paso Robles 1	October 1983- Current		
13S/02E-31A02	1153	1985	11	1600	850-1600	Paso Robles 1	October 1986- Current		
13S/02E-32E05	10164	1984	8	1605	775-1585	Paso Robles 1	June 1986- Current		
14S/01E-24L05	22277	2000	67	970	930-950	Paso Robles 2	November 2002- Current		
14S/02E-06L01	1672	1976	13	1560	880-1540	Paso Robles 1	October 1988- Current		
14S/02E-33E01	26313	2005	140	1095	1045-1095	Paso Robles ³	June 2018- Current		
14S/02E-28H04	22929	2006	26	1180	940-1160	Paso Robles ³	July 2018- Current		
15S/03E-05R52	22905	2006	52	840	600-820	Paso Robles ³	April 2016- Current		

1. Feeney and Rosenberg, 2003; 2. Hanson et. al, 2002; 3. Based on interpretation of geologic log; 4. Period of record where relatively consistent monthly measurements were collected



Figure 1. Deep Aquifer wells in the Paso Robles Formation used for groundwater level hydrographs, labeled by State Well ID

Individual hydrographs for the selected Paso Robles wells can be seen in Figure 2. Groundwater elevations are all below sea level. The variability in groundwater levels varies spatially. Wells in the northern coastal region (e.g., 19Q03, 31A02, 06L01, 32E05) have higher groundwater levels on average and see less seasonal variability. This is in an area where less pumping is occurring from the Deep Aquifers, likely resulting in less seasonal drawdown of groundwater levels here.



Figure 2. Individual hydrographs for selected wells, WY 2019 to First Quarter WY 2021

Lower groundwater elevations and a larger seasonal drawdown is seen in Deep Aquifer wells further inland. These wells are closer to areas where more Deep Aquifer extractions are occurring. Groundwater extraction data for the 2020 reporting year is currently being collected. A more in-depth analysis of the effect of groundwater extractions on Deep Aquifer groundwater levels will be included in a future version of this addendum. A noticeable trough in groundwater levels is seen in several wells in February and March 2020. Potential causes of this will be analyzed and included in later versions as well.

In the Quarterly Conditions report, groundwater elevations from a representative set of wells in each aquifer or subarea are averaged together to compare water levels across water years (WY). Average groundwater elevations of the eight Deep Aquifers wells in the Paso Robles formation can be seen in Figure 3 for the last water year, WY 2020 (pink), and the current water year, WY 2021 (blue). Average elevations by the end of the first quarter of WY 2021 were twenty-six feet below sea level. WY 2021 started with groundwater elevations lower than those at the start of WY 2020, and by the end of the quarter were four feet lower than elevations last December. Since not all the wells used in this average have groundwater levels from 2018 or earlier, a dry year and 30-year average line were not included.



Figure 3. Average hydrographs for Paso Robles Deep Aquifer Wells (n=8)

Purisima Groundwater Levels

Four wells have been identified to represent the Deep Aquifers in the Purisima Formation (Table 2). The screened formation of each well was identified in previous reports or was made by Staff based on interpretation of geologic logs and geophysical logs, if available. The depths of these

wells range from 1080 ft-bgs to 1880 ft-bgs, with screened intervals ranging from 1040 ft-bgs to 1860 ft-bgs. These wells were selected because there is a long period of consecutive monthly groundwater level measurements to use for this analysis, and because these wells appear to be screened exclusively in the Purisima formation. Wells with a shorter, but still consistent, period of record were included if the well's location helped expand spatial coverage of Purisima wells (Figure 4).

Table 2. Purisima Deep Aquifers Wells								
State Well ID	Facility Year GSE Depth Screened Screened Monthly Groundwater Lev /ell ID Code Drilled (ft-msl) (ft-bgs) Interval (ft-bgs) Formation Period of Record ³							
14S/01E-24L02	22274	2000	67	1880	1820-1860	Purisima ¹	November 2002- Current	
14S/01E-24L03	22275	2000	67	1430	1410-1430	Purisima ¹	November 2002- Current	
14S/01E-24L04	22276	2000	67	1080	1040-1060	Purisima ¹	November 2002- Current	
14S/02E-33E02	26314	2005	140	1760	1680-1760	Purisima ²	June 2018- Current	

1. Hanson et al., 2002; 2. Based on interpretation of geologic logs; 3. Period of record where relatively consistent monthly measurements were collected



Figure 4. Deep Aquifer wells in the Purisima Formation used for groundwater level hydrographs, labeled by State Well ID

Individual hydrographs for the selected Purisima wells can be seen in Figure 5. Similar to the Paso Robles, groundwater elevations in the Purisima are all below sea level. The trough seen in Paso Robles groundwater levels in February and March 2020 can also be seen in Purisima groundwater levels, though not as pronounced. Potential causes of this will be analyzed and included in later versions of this addendum.



Figure 5. Individual hydrographs for selected wells, WY 2019 to First Quarter WY 2021

Average groundwater elevations of the four Deep Aquifers wells in the Purisima formation can be seen in Figure 6 for WY 2020 and WY 2021. Average elevations by the end of the first quarter of WY 2021 were twenty-five feet below sea level, barely above the average elevations in the Paso Robles. Groundwater elevations in WY 2021 started out similar to those at the beginning of WY 2020, but fell two feet lower by the end of the quarter. Since not all the wells used in this average have groundwater levels from WY 2015 or earlier, a Dry year and 30-year average line was not included.



Figure 6. Average hydrographs for Purisima Deep Aquifer Wells (n=4)

Paso Robles and Purisima Combined

One option for the Quarterly Conditions Report is averaging the Paso Robles and Purisima screened wells mentioned above together for a single set of Deep Aquifers hydrographs, instead of two. This approach would make adding new wells to this set easier, since most of the recently constructed Deep Aquifers wells are screened in both the Paso Robles and Purisima formations. However, it would move away from comparing groundwater levels in the Paso Robles versus Purisima formation in the Quarterly Conditions Report.



Figure 7. Average hydrographs for Deep Aquifer Wells, Paso Robles and Purisima combined (n=12)

Figure 7 shows the groundwater level hydrographs for WY 2020 and WY 2021 if the Paso Robles and Purisima wells were averaged together. The hydrographs show similar trends as the Paso Robles and Purisima set hydrographs. Average elevations by the end of the first quarter of WY 2021 were twenty-six feet below sea level. WY 2021 started with lower groundwater elevations than those at the start of WY 2020, and by the end of the quarter remained two feet lower than last December.

3. Vertical Hydraulic Gradients

Vertical hydraulic, or pressure, gradients can be calculated by finding the difference in groundwater elevations between two aquifers. The direction of the vertical hydraulic gradient determines the potential direction of flow between two aquifers, so long as pathways exist for water to move. Table 3 shows the average groundwater elevations from the end of the quarter, December 2020, in the Deep Aquifers and the overlying aquifers.

Table 3. Average Groundwater Elevations (ft-msl) December 2020						
180-Ft Aquifer ¹	400-Ft Aquifer ¹	Paso Robles Deep Aquifer Wells	Purisima Deep Aquifer Wells	Combined Paso Robles and Purisima Deep Aquifer Wells		
7'	0′	-26′	-25′	-26′		

1. Salinas Valley Water Conditions for the First Quarter of Water Year 2020-2021

In December 2020, groundwater elevations in the 180-Ft aquifer were seven feet higher than groundwater elevations in the 400- Ft aquifer, and the vertical hydraulic gradient between the two was -7 ft (400-Ft Aquifer elevation minus 180-Ft Aquifer elevation). A negative vertical gradient value represents downward flow, while a positive vertical gradient represents upward flow. The negative gradient in this case means water has the potential to move from the 180-Ft aquifer downward into the 400-Ft Aquifer. As discussed in the 2017 Recommendations Report⁷, a combination of the downward gradient, geology, regional seawater intrusion in the overlying 180-Ft aquifer, groundwater pumping and well construction/conditions allowed for inter-aquifer seawater intrusion between the 180 and 400-Ft Aquifers.

Looking at the groundwater elevations between the 400-Ft Aquifer and the combined Deep Aquifer wells, the vertical hydraulic gradient is -26 ft (Combined Deep Aquifer wells elevation minus 400-Ft Aquifer elevation). Again, the negative vertical gradient means there is a mechanism in place for 400-Ft aquifer water to move downward into the Deep Aquifers. Unlike the overlying aquifers, we don't have enough information about potential pathways that exist for water to move between the Deep Aquifers and the overlying 400-Ft Aquifer.

This way of looking at vertical gradients between aquifers relies on a single average groundwater elevation to represent the entire aquifer. However, the difference in vertical gradients also varies spatially. Figure 8 shows the spatial differences in groundwater elevations between the 400-Ft Aquifer and Deep Aquifers in August 2020. This map was generated by taking the difference between the 400-Ft /East Side Deep Aquifer August 2020 contours and the groundwater elevation at each Deep Aquifer well sampled that month. A raster surface was then interpolated from those points. Red colors represent areas with negative vertical gradients, meaning vertical flow would be downward from the overlying 400-Ft Aquifer into the Deep Aquifers. Blue colors would represent areas with positive vertical gradients where vertical flow would be upward from the Deep Aquifers into the 400-Ft Aquifer. In August 2020, groundwater elevations in the Deep Aquifers were entirely below elevations in the 400-Ft Aquifer. Differences between the two aquifers were smallest near the coast, the smallest difference being -2.7 feet, but ranged upward of -72.4 feet difference further inland. A similar map will be generated for December 2020 and included in a future version of this addendum once contour lines from the Annual 2020 sampling event are finalized. Further discussion on the historical trends and changes in vertical gradients will also be included.

⁷ Monterey County Water Resources Agency. 2017. *Recommendations to Address the Expansion of Seawater Intrusion in the Salinas Valley Groundwater Basin*. <u>https://www.co.monterey.ca.us/home/showdocument?id=57396</u>



Figure 8. Vertical Hydraulic (or Pressure) head differences between the 400-Ft and Deep Aquifers, August 2020



Before the Board of Directors of the Monterey County Water Resources Agency

County of Monterey, State of California

BOARD ORDER No.

Receive a report on the addition of a Deep Aquifers)
Addendum to the Salinas Valley Water Conditions)
Report.)

PASSED AND ADOPTED on this 16th day of February 2021, by the following vote, to-wit:

AYES:

NOES:

ABSENT:

BY: Chair Board of Directors ATTEST: Brent Buche General Manager



Monterey County

Board Report

Legistar File Number: WRAG 21-043

Item No.10

Board of Supervisors Chambers 168 W. Alisal St., 1st Floor Salinas, CA 93901

February 16, 2021

Introduced: 2/8/2021 Version: 1 Current Status: Agenda Ready Matter Type: WR General Agenda

Consider adopting the "Standards and Guiding Principles of Reservoir Operations During Drought Conditions" for the Drought Operations Technical Advisory Committee.

RECOMMENDATION:

It is recommended that the Monterey County Water Resources Agency Board of Directors:

Adopt the "Standards and Guiding Principles of Reservoir Operations During Drought Conditions" for the Drought Operations Technical Advisory Committee.

SUMMARY/DISCUSSION:

Provisions for the formation of a Drought Operations Technical Advisory Committee (D-TAC) were developed through a litigation settlement agreement (Attachment 1, Appendix A) as an ad hoc committee of independent third-party experts with expertise in any of the following fields: hydrology, hydrologic modeling, civil engineering, ecology, or fish and wildlife biology. In January 2020 the Monterey County Water Resources Agency (MCWRA) opened an application cycle, via its website, available to all interested organizations and parties wishing to participate. The experts would be retained and paid for, but not employed by any interested person or organization.

In the summer of 2020, the MCWRA formed and convened a D-TAC to create a standards and guiding principles document which would be used in the development of a proposed reservoir release schedule, when triggered under specific, seasonally defined conditions (Attachment 1). The D-TAC formally met on three occasions in August, November and December of 2020 to deliberate on a set of standards and guiding principles; ultimately reaching consensus at their December 18, 2020 meeting. The final document not only captured those standards and guiding principles, but also the triggers and procedures in which the D-TAC would reconvene to develop a proposed reservoir release schedule.

OTHER AGENCY INVOLVEMENT

On January 28, 2021 the Reservoir Operations Advisory Committee recommended that the Monterey County Water Resources Agency Board of Directors adopt "Standards and Guiding Principles of Reservoir Operations During Drought Conditions"

FINANCING:

There is no financial impact to receiving this report.

Prepared by: Howard Franklin, Senior Hydrologist, (831) 755-4860

Approved by: Brent Buche, General Manager, (831) 755-4860

Attachments:

"Standards and Guiding Principles of Reservoir Operations During Drought Conditions"



Monterey County

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Attachments:

"Standards and Guiding Principles of Reservoir Operations During Drought Conditions"

Drought Operations Technical Advisory Committee

Standards and Guiding Principles of Reservoir Operations During Drought Conditions

This document provides a foundation of standards and guiding principles to be used in the development of a proposed reservoir release schedule triggered under specific, seasonally defined conditions.

<u>Standards: a level of quality or achievement that is considered acceptable or desirable.</u> Standards are in place to ensure that basic needs are met by partners through clearly defined behaviors that are acceptable. The drought operations technical advisory committee will strive to have attainable standards.

Guiding Principles: guide an organization towards its goals.

Guiding Principles are in place to ensure we continue to move toward our goals with flexibility and unity of effort.

Introduction

Prior to being formally established in 1991, the Monterey County Water Resources Agency (MCWRA) was the Monterey County Flood Control and Water Conservation District, established in 1947 and organized as a division of the Public Works Department of the County of Monterey. MCWRA provides services related to the control of flood and storm waters in Monterey County, conservation, protection of water quality, reclamation of water and the exchange of water. MCWRA is a public agency created by the State of California pursuant to the Monterey County Water Resources Agency Act (California Water Code, Appendix 52).

MCWRA owns and operates two dams along with associated reservoirs. Nacimiento Dam is on the Nacimiento River, a tributary to the Salinas River. Nacimiento Dam is approximately 12.3 river miles upstream of its confluence with the Salinas River and forms the Nacimiento Reservoir, with a maximum storage capacity of approximately 377,900 acre-feet. San Antonio Dam, on the San Antonio River is approximately 8.6 river miles upstream of its confluence with the Salinas River. San Antonio Dam forms the San Antonio Reservoir, with a maximum storage capacity of approximately 335,000 acre-feet of water. The Nacimiento and San Antonio Rivers enter the Salinas River at river miles 108 and 104, respectively, from its mouth at the Pacific Ocean in Monterey Bay.

The purpose of the Drought Operations Technical Advisory Committee (D-TAC) is to provide, when drought triggers occur, technical input and advice regarding the operations of Nacimiento and San Antonio Reservoirs. This document was developed by the members of the D-TAC to

provide a foundation of Standards and Guiding Principles to be used in the development of a proposed reservoir release schedule triggered under specific, seasonally defined conditions. A Habitat Conservation Plan (HCP) is currently being developed to address the effects of reservoir operations and other actions on Federally endangered species and will further address drought operations in the Salinas River system. Documents and procedures developed by the D-TAC will be considered during development of the HCP. MCWRA will convene with stakeholders to determine if modifications to these drought procedures are warranted in light of the terms of the final HCP. Drought operations developed by the D-TAC will also consider management actions and sustainability criteria within the Groundwater Sustainability Plans for the Salinas Valley groundwater basin.

Formation of the D-TAC

The D-TAC was formed through a settlement agreement (Appendix A) to develop Standards and Guiding Principles and proposed reservoir release schedules for MCWRA drought operations. The D-TAC is an ad hoc committee of independent third-party experts with expertise in any of the following fields: hydrology, hydrogeology, hydrologic modeling, civil engineering, ecology, or fish and wildlife biology. The experts are retained and paid for, but not employed by any interested person or organization. The U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, State Water Resources Control Board, Salinas Valley Basin Groundwater Sustainability Agency and the Monterey County Water Resources Agency are using in-house staff as D-TAC members. Each time a Drought Trigger occurs, the chair of the D-TAC shall rotate, in alphabetical order, by the name of the organization D-TAC members represent. Organizations with multiple members will only have one-person chair in the rotation.

D-TAC Members (ordered alphabetically by organization):

- Donald Baldwin, Environmental Scientist, California Department of Fish and Wildlife
- Dennis Michniuk, District Biologist Coastal Fisheries California Department of Fish and Wildlife
- Robert Abrams, PhD, PG, CHg Grower-Shipper Association
- William Stevens, Natural Resource Management Specialist National Marine Fisheries Service
- Shaunna Murray, Senior Water Resources Engineer Monterey County Water Resources Agency
- Germán Criollo, PE, Associate Hydrologist Monterey County Water Resources Agency
- Jason Demers, Associate Engineer Monterey County Water Resources Agency
- Emily Gardner, Dep. General Manager Salinas Valley Basin Groundwater Sustainability Agency
- Curtis Weeks, PE, Salinas Valley Water Coalition
- Mark Ogonowski, Senior Fish and Wildlife Biologist U.S. Fish and Wildlife Service

Facilitation and Support:

- Howard Franklin, PG, Senior Hydrologist Monterey County Water Resources Agency
- Nicole Koerth, GIT, Hydrologist Monterey County Water Resources Agency

D-TAC Triggers

Drought Triggers, or reservoir storage thresholds for when the D-TAC shall meet to develop a release schedule, are defined in Exhibit B of the Settlement Agreement (Appendix A). These triggers are based on operational considerations and not water year type. The storage thresholds defined assume that MCWRA can make conservation releases to the Salinas River Diversion Facility (SRDF) for two months and maintain minimum releases until September.

A Drought Trigger occurs if the following criteria is met:

- At the October Reservoir Operations Advisory Committee meeting of each year, MCWRA staff will present an updated reservoir release schedule and the then-current forecast for December 1st storage at Nacimiento and San Antonio Reservoirs. If the December 1st forecasted combined reservoir storage volume at Nacimiento and San Antonio Reservoirs is below 220,000 acre-feet and the San Antonio Reservoir's December 1st forecasted storage is below 82,000 acre-feet, the D-TAC process shall commence.
- The MCWRA will schedule the first D-TAC meeting to occur no earlier than February 15th and the D-TAC will meet as needed through March 31st. The D-TAC will develop a recommended release schedule that is consistent with the Standards and Guiding Principles.
- If at any time between December 1st and March 31st the actual reservoir storage volumes equals or exceeds the combined or individual minimum storage thresholds, the D-TAC process will terminate, and no release schedule will be prepared by the D-TAC.

Standards:

- The proposed reservoir release operations schedule triggered under specific, seasonally defined conditions of drought will be developed based on the best available scientific knowledge, data, and understanding of the environmental biology, hydrology and hydrogeology of the Salinas Valley; under the technical expertise of the members of the D-TAC.
- The proposed reservoir release schedule will be implemented based on specific tools and templates made available to the D-TAC. These are discussed further in the Implementation Procedures section.
- The proposed reservoir release schedule will acknowledge, address, and balance the water needs of various stakeholders for limited resources during a drought.

Guiding Principles:

- MCWRA is a public agency charged with the long-term management of water resources in the Salinas Valley and is also the flood control agency for Monterey County. Therefore, any releases of water from Nacimiento or San Antonio Reservoirs will be made with consideration given first to safety, including flow conditions and the structural integrity of Nacimiento and San Antonio Dams.
- MCWRA operates Nacimiento and San Antonio Reservoirs under regulatory authorizations; as well as through legal agreements (Appendix C).
- Any reservoir release schedule developed by the D-TAC should:
 - When conservation releases are made, maintain geographic equity to fullest extent possible;
 - Comply with applicable regulations and agreements relating to the operation of Nacimiento and San Antonio Reservoirs;
 - Avoid, to the extent possible, consecutive years where only minimum releases are made from the reservoirs;
 - \circ $\;$ Avoid, to the extent possible, adverse effects to native species and their habitats;
 - Safely use existing MCWRA infrastructure while balancing water availability and use; and
 - Avoid, to the extent possible, adverse impacts to valley-wide agricultural operations.

Implementation Procedures:

- The D-TAC will use a MCWRA provided template when developing the release schedule. The specific actions will also be described in a narrative form to expound upon the actions taken for each month shown in the release schedule.
- The release schedule will be developed for April through December of the current year. If significant inflow occurs during this period, then modifications to the release schedule will be made through existing MCWRA protocols.
- The D-TAC will develop a dry winter scenario narrative for the following January- March period to allow for the possibility of multiple dry winter release operations.
- The reservoir release schedule includes estimated values for demands, releases and associated reservoir elevations and storage volumes. It serves as a guideline for reservoir operations. Actual operations will require the flexibility to respond to current hydrologic and facility conditions.
- The release schedule will be updated on a monthly basis for discussion at the Reservoir Operations Committee.
- Reservoir releases will be made under direction of the MCWRA Board of Directors or Board of Supervisors through the adoption of a reservoir release schedule or dry winter release priorities, to be executed by MCWRA staff.

Summary Actions

The Standards and Guiding Principles Document and any recommended release schedule prepared by the D-TAC will first be received by the Reservoir Operations Advisory Committee. The Reservoir Operations Advisory Committee will meet to discuss the Standards and Guiding Principles or release schedule and will solicit information, data and public comment regarding appropriate MCWRA operations during droughts. Following receipt of public input regarding the Standards and Guiding Principles or any subsequent release schedule, the Reservoir Operations Advisory Committee will then prepare a written recommendation regarding reservoir operations which will be transmitted to the MCWRA Board of Directors for consideration and action. Any interested party that dissents from the Reservoir Operations Committee's recommendation may submit separate written comments to the MCWRA Board of Directors. The MCWRA Board of Directors will determine, in accordance with applicable law, whether MCWRA will adopt and implement the Standards and Guiding Principles or release schedule, provided the MCWRA General Manager may, in his sole discretion, refer the question of whether MCWRA should adopt and implement the Standards and Guiding Principles or a release schedule to the MCWRA Board of Supervisors for final determination. In the event the MCWRA General Manager elects not to refer the question of adoption and implementation of Standards and Guiding Principles or a release schedule to the MCWRA Board of Supervisors, the decision of the MCWRA Board of Directors regarding such questions shall constitute final agency action for all purposes. The MCWRA Board of Directors (or MCWRA Board of Supervisors, if applicable) will retain full discretion and authority to accept or reject, in whole or in part, the written recommendations of the Reservoir Operations Advisory Committee.

APPENDICES

<u>Appendix A:</u> Settlement Agreement Between Monterey County Water Resources Agency, The Agency Board of Supervisors, the Agency Board of Directors, the County of Monterey, the County Board of Supervisors, and the Salinas Valley Water Coalition; November 15, 2019

o <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=98911</u>

Documents referenced in Exhibit B of the Settlement Agreement

- Salinas Valley Water Project, Engineer's Report, January 2003
 - o https://www.co.monterey.ca.us/home/showdocument?id=24202
- Final Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project
 - Draft, June 2001: <u>https://www.co.monterey.ca.us/home/showdocument?id=24180</u>
 - Final Volume 1, April 2002: <u>https://www.co.monterey.ca.us/home/showdocument?id=24186</u>
 - Final Volume 2, April 2002: <u>https://www.co.monterey.ca.us/home/showdocument?id=24188</u>
- Salinas Valley Water Project EIR Addendum, July 17, 2007
 - <u>https://www.co.monterey.ca.us/home/showpublisheddocument?id=98572</u>
- Appendix B: Definition of Terms
- <u>Appendix C:</u> Monterey County Water Resources Agency's Water Rights and Agreements

Appendix B: Definition of Terms

- Adult Steelhead Upstream Migration Releases Reservoir releases made to facilitate upstream migration of adult steelhead between February 1st- March 31st, when triggers are met. If the 1) combined storage of Nacimiento and San Antonio reservoirs is greater than 220,000 AF, 2) 340 cfs or higher flows are present at the Arroyo Seco near Soledad gage (USGS streamflow gage 11152000), and 3) 173 cfs or higher flows are present at the Arroyo Seco below the Reliz Creek gage (USGS streamflow gage 11152050), MCWRA will provide flows of at least 260 cfs at the Salinas River near Chualar (USGS streamflow gage 11152300) for five or more consecutive days, when the river mouth is open to the ocean.
- Block Flow Releases Reservoir releases made to facilitate the downstream migration of smolts and rearing juvenile steelhead in the Salinas River beginning March 15th in normal-category type years. The following triggers must be meet for releases to be made 1) water year type is dry-normal, normal or wet-normal, 2) combined storage of Nacimiento and San Antonio reservoirs is 150,000 AF or more on March 15th, and 3) 125 cfs or higher at the Nacimiento River below Sapaque Creek gage (USGS streamflow gage 111489000) or 70 cfs at the Arroyo Seco below Reliz Creek gage (USGS streamflow gage 11152050). Amount and duration of block flow depends on when the flows are triggered.
- Conservation Pool Water in reservoirs used for groundwater recharge, operation of the Salinas River Diversion Facility, water supply, fish migration, and fish habitat requirements. Volume of 289,013 acre-feet between 687.8 feet and 787.75 feet in Nacimiento Reservoir and volume of 282,000 acre-feet between 666 feet and 774.5 feet in San Antonio Reservoir.

Conservation Releases – Water discharged for the purpose of recharging the groundwater basin.

- Dead Pool The storage between the bottom of the reservoir and elevation 670 feet for Nacimiento Reservoir, the invert of the intake structure of the low-level outlet works, and elevation 645 feet for San Antonio Reservoir, the invert of the intake structure of the outlet works. The volume of the Dead Pool is 10,300 acre-feet in Nacimiento Reservoir and 10,000 acre-feet in San Antonio Reservoir. Water cannot flow out by gravity out of Nacimiento Reservoir below 670 feet elevation and out of San Antonio below 645 feet elevation.
- **Downstream Migration of Juvenile Steelhead and Kelts Releases** Reservoir releases and SRDF bypass flows made to enhance migration opportunities for juvenile steelhead and post-spawn adult steelhead (kelts) made in years when block flow releases for smolt migration don't occur by April 1st.
- Dry Year Water year in which unimpaired annual mean flow at the USGS streamgage on the Arroyo Seco near Soledad (USGS streamgage 11152000) falls in the 75-100% percentile of mean annual flows ranked in descending order (as defined in the Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River).
- **Environmental Compliance** Conforming to any environmental regulatory requirements currently imposed or those that become imposed in the future.

- **Flood Pool** Water used to temporarily store flood water during the winter. Volume of 66,587 acre-feet between 787.75 feet and 800 feet in Nacimiento Reservoir and volume of 30,000 acre-feet between 774.5 feet and 780 feet in San Antonio Reservoir.
- Maximum Reservoir Elevation Maximum reservoir elevation that can be sustained, and the level at which the reservoir is considered full. Elevation of 800 feet in Nacimiento Reservoir and 780 feet in San Antonio Reservoir.
- Minimum Releases Reservoir releases made to provide steelhead spawning and rearing habitat flows. Minimum releases are 60 cfs from Nacimiento Dam as long as the water surface elevation of Nacimiento Reservoir is above 687.8 feet, and 10 cfs from San Antonio Dam as long as the water surface elevation of San Antonio Reservoir is above 666 feet.
- Minimum Pool The storage above Dead Pool and below Conservation Pool. This is between elevation 670 feet and 687.8 feet in Nacimiento Reservoir. The volume of this pool is 12,000 acre-feet which is reserved for use by the County of San Luis Obispo per the 1959 San Luis Obispo County Agreement. In San Antonio Reservoir, minimum pool is between elevation 670 feet and 687.7 feet, with a volume of 12,000 acre-feet.
- Minimum Recreation Elevation Lowest Nacimiento Reservoir elevation at which most of the boat ramps around the reservoir are useable and which most private property owners have access to the reservoir.
- Natural Flow Water that would exist in a stream at a given point in time in the absence of human activity (Source: https://www.waterboards.ca.gov/waterrights/board_info/faqs.html)
- **NWP Intake Elevation** Lowest Nacimiento Reservoir elevation at which San Luis Obispo County can take water through the Nacimiento Water Project. Elevation of 670 feet.
- **Operations Ratio** The ratio of empty space in the conservation pools of San Antonio and Nacimiento Reservoirs, with Nacimiento as the numerator. Historically, this ratio was defined as 3 to 1, and reservoir releases were made in such a manner that the ratio was reached prior to halting releases at onset of the rainy season.
- Salinas River Diversion Facility (SRDF) A component of the Salinas Valley Water Project that consists of an inflatable Obermeyer dam and a river intake structure to provide treated river water to growers within the Castroville Seawater Intrusion Project service area. This facility is located approximately 5 river miles upstream of the mouth of the Salinas River.
- Salinas Valley Water Project (SVWP) A project developed by MCWRA and Salinas Valley interests that consists of the modifications of the spillway at Nacimiento Dam and the construction of the Salinas River Diversion Facility, near the city of Marina. The goals of the project are to help stop seawater intrusion, improve flood control, recharge Salinas Valley groundwater, and improve conditions for steelhead trout.
- **Top of Dam** The dam crest. Elevation of 825 feet at Nacimiento Dam and 802 feet at San Antonio Dam.
- Water Year The 12-month period from October 1st through September 30th. The water year is designated by the calendar year in which it ends, and which included 9 out of the 12 months. For examples, the year ending on September 30th, 1959 is called "1959 water year".

Water Year Type – Determination of water year type (e.g. dry, normal, wet) is made based on unimpaired annual mean flows at the USGS streamgage on the Arroyo Seco near Soledad (USGS Streamgage 11152000). Annual mean flows are ranked in descending order and stream flow corresponding to the 25th and 75th percentile are selected as the thresholds. Wet years are defined as flows below the 25th percentile, Normal years between the 25th and 75th percentile, and Dry years above the 75th percentile. Year type determinations are made on March 15th (preliminary) and April 1st (official) of each year. (as defined in the Salinas Valley Water Project Flow Prescription for Steelhead Trout in the Salinas River).

Appendix C: Monterey County Water Resources Agency's Water Rights and Agreements

Nacimiento Reservoir

Water Rights License 7543 – License for Diversion and Use of Water, No. 7543, from the California State Water Resources Control Board, was issued November 4, 1965.

This license was last amended September 5, 2008 to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the Salinas River Diversion Facility (SRDF), and to add fish flow requirements that were consistent with the June 21, 2007, National Marine Fisheries Service (NMFS) biological opinion issued to the U.S. Army Corps of Engineers (biological opinion).

License No. 7543 gives MCWRA the right to store 350,000 AF from October 1 of each year to July 1 of the succeeding year and to withdraw a maximum of 180,000 AF per year. The purpose of use are for irrigation, domestic, municipal, industrial, and recreational uses. *Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy:* <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=63151</u>

Water Rights Permit 21089 – Permit for Diversion and Use of Water, No. 21089, from the California State Water Resources Control Board, was issued March 23, 2001. This permit was last amended September 5, 2008, to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the SRDF, and to add fish flow requirements that were consistent with the NMFS biological opinion.

The original reservoir volume computations submitted and subsequently approved in License No. 7543, were based on United States Geological Survey (USGS) Quad sheets from the 1940s. In the early 1990s, aerial surveys with increased accuracy showed that the actual volume of Nacimiento Reservoir was greater than the 350,000 AF in License 7543. In order to correct this discrepancy, MCWRA filed water rights Application No. 30532. Nacimiento Dam has never been modified in any way to increase storage and the reservoir volume is unchanged from the time of the dam's construction, with the exception of the inflow of silt from natural runoff which has decreased storage volume.

As a result of this application, MCWRA has a permit to collect to storage 27,900 AF per annum from October 1 of each year to July 1 of the succeeding year. The total quantity of water collected to storage under this permit and License 7543 shall not exceed 377,900 AF per year.

Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy: <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=63151</u>

 Water Rights Permit 19940 – Permit for Diversion and Use of Water, No. 19940, from the California State Water Resources Control Board, was issued December 31, 1986.
 Permit 19940 gives MCWRA the right to divert up to 500 cfs through the Hydroelectric Plant from January 1 to December 31 of each year for irrigation, domestic, municipal, industrial and recreational uses. Diversion under this permit is incidental to releases being made for other purposes.

Documents for this can be found in Appendix B of the Nacimiento Dam Operation Policy: <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=63151</u>

San Luis Obispo County Agreement – MCWRA's Water Rights License No. 7543 is subject to an agreement between MCWRA and SLO District which gives SLO District the right to use 17,500 AF of water annually from Nacimiento Reservoir. The SLO District Board has adopted a policy designating a portion of the total, approximately 1,750 acre-feet per year (AFY), for use around Nacimiento Reservoir; Heritage Ranch Community Services District (HRCSD) has agreements with SLO District which collectively entitle HRCSD to use 889 AFY of the 1,750 AFY; pursuant to these agreements, HRCSD takes its allotment from a well gallery in the Nacimiento River downstream of the Dam. SLO District can use up to the remaining 15,750 AF per water year through the NWP. The agreement also provides that MCWRA shall not make conservation releases during the water year that result in a reservoir elevation below 687.8 feet on September 30 of each year in order to assure SLO District of its rights and entitlements to water under the terms of the agreement (i.e. in order to assure the maintenance of a minimum storage pool of 12,000 AF above the present low-level outlet works for SLO District use). The original agreement is dated October 19, 1959, and it has been amended six different times in 1959, 1967, 1970, 1977, 1988, and 2007. These documents are collectively referred to as the SLO County Agreement.

Documents for this can be found in Appendix C of the Nacimiento Dam Operation Policy: <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=63151</u>

Nacimiento Water Company Agreement – The 1984 agreement with MCWRA allows the Nacimiento Water Company a water allocation of up to 600 AF per year to be extracted from wells within the floodage easement of Nacimiento Reservoir. The Nacimiento Water Company shall pay MCWRA quarterly for water from the allocation on the basis of AF used at a rate determined by this agreement.

Documents for this can be found in Appendix D of the Nacimiento Dam Operation Policy: <u>https://www.co.monterey.ca.us/Home/ShowDocument?id=63151</u>

San Antonio Reservoir

Water Rights License 12624 - License for Diversion and Use of Water, No. 12624, from the California State Water Resources Control Board, was issued December 2, 1965 and amended April 22, 1990. This license was most recently amended September 5, 2008 to specify that the place of use of water from this license changed to include 421,435 acres of land comprising MCWRA's Zone 2C assessment zone, to add a point of rediversion at the SRDF, and to add fish flow requirements consistent with the June 21, 2007, National Marine Fisheries Service BO.

License No. 12624 gives MCWRA the right to store 220,000 AF from October 1 of each year to July 1 of the succeeding year and to withdraw a maximum of 210,000 AF per year for municipal, domestic, industrial, irrigation, and recreational uses.

The amended license can be found on the CA State Water Resources Control Board website: <u>https://www.waterboards.ca.gov/waterrights/board_decisions/adopted_orders/orders/2008/wro</u> <u>2008_0037dwr.pdf</u>



Before the Board of Directors of the Monterey County Water Resources Agency

County of Monterey, State of California

BOARD ORDER No.

)))

CONSIDER ADOPTING "STANDARDS AND
GUIDING PRINCIPLES OF RESERVOIR
OPERATIONS DURING DROUGHT
CONDITIONS"

Upon motion of Director _____, seconded by Director _____, and carried by those members present, the Board of Directors hereby:

Adopts "Standards and Guiding Principles of Reservoir Operations During Drought Conditions"

PASSED AND ADOPTED on this **16th** day of **February 2021**, by the following vote, towit:

AYES:

NOES:

ABSENT:

BY: John Baillie Chair Board of Directors ATTEST: Brent Buche General Manager



Board Report

Legistar File Number: WRAG 21-032

February 16, 2021

Item No.11

Current Status: Draft Matter Type: WR General Agenda

Printed on 2/9/2021



Introduced: 2/5/2021 Version: 1

February, March and April 2021 Calendars

168 W. Alisal St., 1st Floor Salinas, CA 93901

Board of Supervisors Chambers

Februa WRA Board and	ary 202	1 ngs	February 20 <u>SuMo TuWe Th</u> 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25 28	21 M Fr Sa SuMo 1 5 5 6 1 12 13 7 8 19 20 14 15 26 27 21 22 2 28 29 3	arch 2021 <u>FuWe Th Fr Sa</u> 2 3 4 5 6 9 10 11 12 13 16 17 18 19 20 23 24 25 26 27 30 31	
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan 31	Feb 1	2	3 8:30am BMAC Committee (1441 Schilling Pl., Salinas) 10:00am Planning Committee	4	5 8:30am Personnel & Admin. Committee 10:00am Finance Committee (1441 Schilling Pl., Salinas)	6
7	8	9	10	11	12	13
14	15 HOLIDAY	 16 Board of Directors Meeting (BOS Chambers, 10:00am Special Mtg-Worksho p-DM Eng. Rept. 	17	18	19	20
21	22	23	24	25 1:30pm Reservoir Operations Advisory Committee (Saffron Room) - 930-Board of Directors	26	27
28	Mar 1	2	3	4	5	6
930-Board of Directo	ors		1			2/5/2021 11:48 AM

2/5/2021 11:48 AM

March WRA Board a	2021 and Committee Mee	tings	March 202 <u>SuMo TuWe Th</u> 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25 28 29 30 31	1 A Fr Sa SuMo 5 6 12 13 4 5 19 20 26 27 18 25 26	April 2021 <u>TuWe Th Fr Sa</u> <u>1 2 3</u> 6 7 8 9 10 13 14 15 16 17 20 21 22 23 24 27 28 29 30	
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Feb 28	Mar 1	2	3 8:30am BMAC Committee (1441 Schilling Pl., Salinas) 10:00am Planning Committee	4	5 8:30am Personnel & Admin. Committee 10:00am Finance Committee (1441 Schilling Pl., Salinas)	6
7	8	9	10	11	12	13

14	15 Board of Directors Meeting (BOS Chambers, 168 w. Alisal) - 930-Board of Directors	16	17	18	19	20
21	22	23	24	25 1:30pm Reservoir Operations Advisory Committee (Saffron Room) - 930-Board of Directors	26	27
28	29	30	31	Apr 1	2	3

April 2021

April 2021	
SuMo TuWe Th Fr Sa	SuMo
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	2 3 9 10 16 17 23 24

May 2021 TuWe Th Fr Sa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Mar 28	29	30	31	Apr 1	2 8:30am Personnel & Admin. Committee 10:00am Finance Committee (1441 Schilling Pl., Salinas)	3
4	5	6	7 8:30am BMAC Committee (1441 Schilling Pl., Salinas) 10:00am Planning Committee	8	9	10
11	12	13	14	15	16	17
18	19 Board of Directors Meeting (BOS Chambers, 168 w. Alisal) - 930-Board of Directors	20	21	22	23	24
25	26	27	28	29 1:30pm Reservoir Operations Advisory Committee (Saffron Room) - 930-Board of Directors	30	May 1
930-Board of Director	S		1			2/9/2021 12:40 PM

2/9/2021 12:40 PM



Monterey County

Board Report

Legistar File Number: WRAG 21-033

February 16, 2021

Item No.12

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor Salinas, CA 93901

Introduced: 2/5/2021

Version: 1

Current Status: Draft Matter Type: WR General Agenda

- COVID-19 Update
- Personnel Update
- Reservoir Drought Operations
- Prop 1 Grant Update
- Other


Monterey County

Board Report

Legistar File Number: WRAG 21-035

February 16, 2021

Introduced: 2/5/2021

Version: 1

Current Status: Draft Matter Type: WR General Agenda

Information Items:

- 1. Reservoir Release Update
- 2. Well Permit Application Activities Update

Item No.13

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor Salinas, CA 93901 Reservoir Release Update

SUMMARY/DISCUSSION:

The Board of Directors receives monthly updates on the status of Agency reservoirs.

RESERVOIR ELEVATION / STORAGE: As of February 5, 2021, San Antonio Reservoir has a water surface elevation of approximately 701.2 feet (NGVD 29), with 65,780 acre-feet of storage. Nacimiento Reservoir has a water surface elevation of approximately 751.25 feet, with 155,263 acre-feet of storage. San Antonio Reservoir is currently at 20% of storage capacity and Nacimiento Reservoir is at 41% of capacity.

RESERVOIR RELEASES: Minimum fisheries releases are currently being made from both reservoirs. Current release rates are 70 cfs (60 cfs from Nacimiento Reservoir and 10 cfs from San Antonio Reservoir). Minimum fisheries releases have been made continuously since the middle of September of last year.

The atmospheric river storm event that impacted our area from January 26th to January 29th generated runoff resulting in peak flows entering the Salinas River from several tributaries, including flows in excess of 11,700 cfs from the Arroyo Seco. Subsequently, on January 29th, downstream flooding hazard potential necessitated mechanical breaching of the Salinas River Lagoon.

As of the time of this update, inflows from this atmospheric river storm event resulted in increased reservoir storage of approximately 12,900 acre-feet in San Antonio Reservoir and 74,900 acre-feet in Nacimiento Reservoir. The Salinas River Lagoon remains open to the ocean.

Minor deviations in release rates are not presented in this report but are documented in the Salinas Valley Water Project Annual Flow Reports.

Releases as of February 5, 2021:

•	Nacimiento Reservoir:	60 cfs
•	San Antonio Reservoir:	10 cfs

Total releases from both reservoirs to the Salinas River are approximately 70 cfs. The following "provisional" flows have been recorded by the USGS:

•	Salinas River near Bradley:	105 cfs
•	Salinas River at Soledad:	71 cfs
•	Salinas River near Chualar:	45 cfs
•	Salinas River near Spreckels:	72 cfs
•	Salinas River near Spreckels:	72 cfs

Prepared by:	Germán Criollo, Associate Hydrologist, (831) 755-4860
	Peter Kwiek, Hydrologist, (831) 755-4860

Well Permit Application Activities Update

SUMMARY/DISCUSSION:

In support of Monterey County's Well Permit Application Program the Agency acts as technical advisor to the program's lead agency, the Environmental Health Bureau (EHB). In accordance with a 1991 interdepartmental Memorandum of Agreement between the Agency and EHB, the Agency performs a comprehensive review process on well permit applications for new wells pumping five acre-feet of water or more per year, as well as for proposed well destructions and repairs.

The Agency provides review and/or advisement to EHB within five (5) business days of receiving new well permit applications. The Agency also reviews final well designs and annular seal depth proposals on an on-going basis and is committed to providing a response to EHB within twenty-four (24) hours of receiving design proposals.

The Agency receives funds that cover staff time for well application review, well completion report processing, and database maintenance from fees collected by EHB. The Agency's fees are defined in Article XI of the Monterey County Fee Resolution.

Table 1 (attached) provides a summation of well permit applications received in the last month for evaluation by Agency staff, categorized by permit type, Agency management area, and aquifer unit. Also included is a tabulation of new well applications reviewed for the fiscal year. This table is provided to the Board of Directors and Basin Management Advisory Committee on a monthly basis.

Publication of the Agency's Report, "Recommendations To Address the Expansion of Seawater Intrusion in the Salinas Valley Groundwater Basin (October, 2017) and subsequent adoption of Interim Urgency Ordinance 5302 and Ordinance 5303 by the Monterey County Board of Supervisors (May 22, 2018 and June 26, 2018, respectively) have led to increased interest in data related to wells in and extractions from the Deep Aquifers (Figure 1).

Figure 2 depicts the history of well installation in the Deep Aquifers by water use category. As illustrated in the chart, a total of fifty-seven (57) wells have been installed in the Deep Aquifers since 1974, with twenty-five (25) of those wells being constructed in the last ten years, including fourteen (14) within the last three years. Figure 2 includes a tabular historical summary of reported annual Deep Aquifer well extractions by water use category.

Two (2) additional permits have been issued for new Deep Aquifers wells but construction has not been completed as of the date of this report. The proposed wells were applied for as replacement wells after the expiration of Ordinance No. 5302, which expired on May 21, 2020.

OTHER AGENCY INVOLVEMENT:

None

FINANCING: None

Prepared by:	Nicole Koerth, Hydrologist, (831) 755-4860
1 2	Amy Woodrow, Hydrologist, (831) 755-4860
	Tamara Voss, Associate Hydrologist (831) 744-4860
	Howard Franklin, Senior Hydrologist, (831) 755-4860

Attachments:

Table 1 - Summary of Well Permits Received Figure 1- Map showing Deep Aquifer Wells Figure 2 - Timeline of Well Installation in the Deep Aquifers with Summary of Deep Aquifer Groundwater Extractions

Subarea/ Aquifer	Construction	Destruction	Repair	Other	Total	FY (20/21) Total
Pressure 180-Ft Aquifer		2			2	7
Pressure 400-Ft Aquifer		1			1	9
Pressure Deep Aquifers						7
East Side						8
Forebay	1	1			2	10
Upper Valley	1				1	5
Outside Zone 2C, Undefined GW Basin	4				4	27
Total	6	4			10	73

 Table 1. Well Permit Applications Received by Category - January, 2021





1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
2,054	1,992	2,036	2,137	2,170	1,906	2,055	2,302	2,355	2,399	2,366	2,442	2,358	2,005	1,738	2,004	2,102	1,903	1,803	2,044	1,982	3,784	3,746	3,690	3,991	4,499
1,507	2,620	2,302	1,990	2,556	1,648	96	1	0	0	0	0	0	0	58	384	696	982	927	1,397	1,097	2,031	2,010	4,293	4,958	4,855
0	0	0	0	0	0	0	3	13	17	379	305	343	336	393	371	348	333	370	380	523	620	617	569	567	291
3,561	4,612	4,338	4,127	4,725	3,554	2,151	2,307	2,368	2,416	2,745	2,747	2,701	2,341	2,189	2,759	3,146	3,218	3,100	3,821	3,608	6,436	6,373	8,551	9,516	9,645

* Notes: Table includes all reported extraction data for the twenty-nine (29) Deep Aquifer production wells that have reported extractions since inception of the Agency's GEMS program in 1993. Data are reported in acre-feet. Colors denote water use category (Municipal, Agricultural, Industrial). An additional eight (8) recently constructed deep agricultural production wells not shown above have yet to report extractions as of Reporting Year 2018.

Monterey County

Board Report

Legistar File Number: WRAG 21-036

Salinas, CA 93901 February 16, 2021

Board of Supervisors Chambers

168 W. Alisal St., 1st Floor

Current Status: Draft Matter Type: WR General Agenda

Letter dated February 3, 2021 from Brent Buche, General Manager to Drought Operations Technical Advisory Committee

Introduced: 2/5/2021 Version: 1

Item No.14

21

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MONTEREY COUNTY

WATER RESOURCES AGENCY

PO BOX 930 SALINAS, CA 93902 P: (831) 755-4860 F: (831) 424-7935

BRENT BUCHE GENERAL MANAGER



STREET ADDRESS 1441 SCHILLING PLACE, NORTH BUILDING SALINAS, CA 93901

February 3, 2021

Drought TAC Members,

As of today, February 3rd, 2021 combined storage in Nacimiento and San Antonio reservoirs exceeded 220,000 acre-feet.

This is notice that the Drought Operations Technical Advisory Committee (D-TAC) is no longer activated for 2021 and will not be meeting this year to prepare a proposed reservoir release schedule. Recent rainfall has increased storage in Nacimiento and San Antonio reservoirs, resulting in over 220,000 acre-feet combined reservoir storage. This exceeds the combined reservoir storage criteria defined in the "Standards and Guiding Principles of Reservoir Operations During Drought Conditions" for termination of the D-TAC.

The Drought Triggers state that for the D-TAC process to be triggered, combined reservoir storage volume at Nacimiento and San Antonio Reservoirs must be below 220,000 acre-feet and San Antonio Reservoirs storage below 82,000 acre-feet. However, if at any time between December 1st and March 31st the actual reservoir storage volumes equals or exceeds the combined or individual minimum storage thresholds, the D-TAC process will terminate, and no release schedule will be prepared by the D-TAC.

We sincerely thank you for your efforts to develop the Standards and Guiding Principles document and your willingness to continue to prepare release schedules for operations during drought conditions when necessary.

Should you have any questions please do not hesitate to contact me and/or staff at the following addresses: Howard Franklin (<u>franklinh@co.monterey.ca.us</u>), Nicole Koerth (<u>koerthjn@co.monterey.ca.us</u>), or Brent Buche (<u>bucheb@co.monterey.ca.us</u>). Thank you.

Sincerely,

E-signed 2/3/2021

Brent Buche General Manager

The Water Resources Agency manages, protects, stores and conserves water resources in Monterey County for beneficial and environmental use, while minimizing damage from flooding to create a safe and sustainable water supply for present and future generations