

L # 51

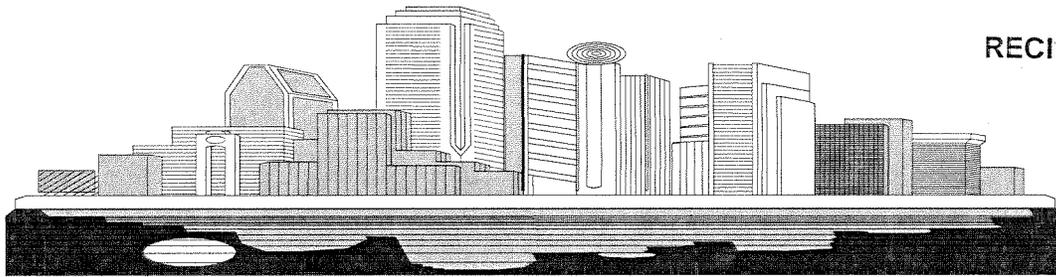
- Unused
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- Out of Scope
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L # 52

- Unused
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- Out of Scope
- Other: _____

(replace original)



San Diego County Building & Construction Trades Council, AFL-CIO

July 9, 2015

BDCP/Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of The San Diego County Building and Construction Trades Council, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.

- REC 1053
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
 - Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
 - Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
 - Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Tom Lemmon
Business Manager

REC1RC53

From: Danielle Paukner <danielle@sdbuildingtrades.com>
Sent: Thursday, July 09, 2015 3:24 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Support Alternative 4A of California Water Fix
Attachments: Support Alternative 4A of California Water Fix.pdf

Please see the attached letter from Mr. Lemmon of The San Diego Building and Construction Trades Council.

Thank you,

Danielle Paukner

San Diego Building & Construction Trades Council
3737 Camino del Rio South, Suite 202
San Diego, CA 92108
619.521.2914 Office
619.599.3214 Cell



Southern California Pipe Trades District Council 16

RECIRC54.

MIKE LAYTON
Business Manager
Financial Secretary/Treasurer

July 13, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of Southern California Pipe Trades District Council 16, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains

501 Shatto Place • Suite 400 • Los Angeles, CA 90020 • (213) 487-4262 • FAX (213) 384-5619

RECIRC54

predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters. Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Michael Layton
Business Manager
So. California Pipe Trades
District Council 16

ML:ab

opeiu #537/afl-cio

RECIRC54

From: Anna Berber <annab@socalpipe.org>
Sent: Monday, July 13, 2015 1:04 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: CA Water Fix
Attachments: Support Alternative 4A.pdf

On behalf of Mike Layton, Business Manager of So. California Pipe Trades District Council 16, attached is a letter in support of Alternative 4A of California Water Fix.

Sincerely,
Anna Berber
So Cal Pipe Trades
District Council 16
213/487-4262 x 812

July 14, 2015

BDCP/Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

Subject: Support Alternative 4A of California Water Fix

On behalf of Inland Action, this letter is to express our strong support for the California Water Fix (Alternative 4A). Inland Action is a non-profit organization of business and community leaders dedicated to the economic and community betterment of the Southern California region. We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition. The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The re-circulated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the State's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the State and federal governments and other stakeholders.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security. For these reasons, Inland Action supports the California Water Fix (Alternative 4A).

Sincerely,



Deborah Barmack, President

cc: Governor Jerry Brown

From: Deborah Barmack <dbarmack@inlandaction.com>
Sent: Tuesday, July 14, 2015 11:08 AM
To: BDCPcomments; governor@governor.ca.gov
Cc: governor@governor.ca.gov
Subject: Inland Action Support Alternative 4A of California Water Fix
Attachments: 20150714 Support Calif Water EIR.docx

Please see the attached letter from Inland Action in support of Alternative 4A of California Water Fix

Deborah Barmack, President
Inland Action
114 South Del Rosa Drive, Room 106B
San Bernardino, CA 92408
909 223-7831 Mobile
www.inlandaction.com



2001 Gateway Place, Suite 101E
San Jose, California 95110
(408)501-7864 svlg.org
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San Jose State University

STEVEN ROSSI

Bay Area News Group

TOMI RYBA

El Camino Hospital

ALAN SALZMAN

VantagePoint Capital Partners

RON SEGE

Echelon Corporation

ROSEMARY TURNER

UPS

RICK WALLACE

KLA-Tencor

JED YORK

San Francisco 49ers

JED YORK

San Francisco 49ers

KEN XIE

Fortinet

Established in 1978 by David Packard

July 13, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

RE: California Water Fix—Silicon Valley Leadership Group Support

Dear BDCP/Water Fix Comments:

The Silicon Valley Leadership Group is writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The re-circulated documents are the culmination of nearly a decade of extensive expert review, scientific and environmental analysis, as well as unprecedented public comment and participation. The California Water Fix reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

The Silicon Valley Leadership Group, founded in 1978 by David Packard of Hewlett-Packard, represents more than 390 of Silicon Valley's most respected employers on issues, programs and campaigns that affect the economic health and quality of life in Silicon Valley, including energy, transportation, education, housing, health care, tax policies, economic vitality and the environment.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition. Our state's system of aging levees, aqueducts and pipes is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security. The California Water Fix is a prudent, science-driven and achievable solution.

If you have any questions, please do not hesitate to contact me at mmielke@svlg.org or 408-501-7858.

Sincerely,



Mike Mielke
SVP, Environment & Energy
Silicon Valley Leadership Group

From: Mike Mielke <mmielke@svlg.org>
Sent: Tuesday, July 14, 2015 12:46 PM
To: BDCPcomments
Cc: Casey Beyer; Laird John@CNRA; governor@governor.ca.gov; nancy.mcfadden@gov.ca.gov; Kris Rosa; Carl Guardino; Sarah Qureshi; Lucy Moore
Subject: SVLG Support for California Water Fix
Attachments: CA WaterFix Comments.pdf

Dear BDCP/Water Fix Comments:

On behalf of the Silicon Valley Leadership Group, I am writing to express our strong support for the California Water Fix (Alternative 4A).

The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The re-circulated documents are the culmination of nearly a decade of extensive expert review, scientific and environmental analysis, as well as unprecedented public comment and participation. The California Water Fix reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition. Our state's system of aging levees, aqueducts and pipes is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

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If you have any questions, please do not hesitate to contact me at mmielke@svlg.org or 408-501-7858.

Sincerely,



Mike Mielke



Santa Clara & San Benito Counties Building & Construction Trades Council

2102 Almaden Road Suite 101 San Jose, CA 95125-2190 · Phone 408.265.7643 · Fax 408.265.2080

July 16, 2015

Josué García
Chief Executive Officer
Robert Baldini
President

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of Santa Clara & San Benito Counties Building & Construction Trades Council, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

Boilermakers 549
Brick & Tile 3
Northern California
Carpenters Regional Council
Carpenters 405
Carpenters 2236
Carpet & Linoleum 12
Cement Masons 400
Electricians 332
Elevator Constructors 8
Glaziers 1621
Heat & Frost Insulators 16
Iron Workers 377
Laborers 270
Laborers 67
Lathers 9144
Millwrights 102
Operating Engineers 3
Painters District Council 16
Painters & Tapers 507
Plasterers 300
Plumbers & Steamfitters 393
Roofers 95
Sheet Metal Workers 104
Sign, Display 510
Sprinkler Fitters 483
Teamsters 287

Affiliated with:

State Building and
Construction Trades
Council of California
California Labor Federation,
AFL-CIO
California Labor C.O.P.E.
South Bay AFL-CIO
Labor Council



The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Josué García
CEO
Santa Clara County & San Benito Counties
Building & Construction Trades Council



REC1R057

From: Sheri Madsen <smadsen@bcfpublicaffairs.com>
Sent: Thursday, July 16, 2015 2:28 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Santa Clara & San Benito Counties Building & Construction Trades Council Support
Attachments: Letter of Support 7 16 2015.pdf

Attached,

Josué García
Chief Executive Officer
Santa Clara & San Benito Counties
Building & Construction Trades Council
O (408) 265-7643 - M (408) 687-6883 - josue@scbtc.org
2102 Almaden Road, Suite 101, San Jose, CA 95125

July 14, 2015

BDCP /Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

Via email to: BDCPComments@icfi.com

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the International Brotherhood of Electrical Workers Local 340 Sacramento – Redding, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.

- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we at IBEW Local 340 support the California Water Fix (Alternative 4A) and we ask you to do the same. Thank you for your consideration.

Sincerely,
ELECTRICAL WORKERS' UNION
Local No. 340

Tom Okumura
Business Manager

cc: Governor Jerry Brown
via email to: governor@governor.ca.gov.

TO/pp opeiu #29 afl-cio

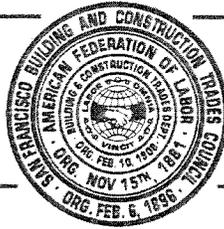
From: Patty Paterson <ppaterson@ibewlocal340.org>
Sent: Tuesday, July 14, 2015 4:04 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: California Water Fix
Attachments: Support Alternative 4A of California Water Fix.docx

Please see attached letter of support for Alternative 4A of California Water Fix from IBEW Local 340 Business Manager Tom Okumura. Thank you.

Patty Paterson
Special Projects Coordinator, IBEW Local 340
2840 El Centro Rd. #115
Sacramento, CA 95833
(o) 916-927-4239
ppaterson@ibewlocal340.org

San Francisco Building and

1188 FRANKLIN STREET • SUITE 203
 SAN FRANCISCO, CA 94109
 EMAIL: mike@sfbctc.org

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 Vice Presidents

14 July 2015

BDCP/Water Fix Comments
 Post Office Box 1919
 Sacramento, California 95812

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

The Board of Business Representatives of the San Francisco Building and Construction Trades Council has voted unanimously to support the California Water Fix (Alternative 4A). Age and proximity to seismic zones threaten much of California's water system. Problems with it have already reduced water supply and damaged fish populations and the Delta environment. The California Water Fix, well vetted and considered, will at once update and protect key system elements and protect the Delta.

The California Water Fix (Alternative 4A) incorporates improvements to the plan that address the expressed concerns of the state and federal governments and other stakeholders, after extensive public comment and participation. Leading water experts, engineers, and conservationists have worked almost ten years in the plan's scientific and environmental analysis; the recirculated environmental documents are the result.

The California Water Fix (Alternative 4A) will:

- Deliver water through a safe modern pipeline rather than through today's crumbling levee system.
- Protect our water supplies from earthquakes, floods and natural disasters.
- Improve movement of water to storage facilities to better capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore the environment of the Sacramento-San Joaquin Delta.

The Department of Water Resources and the Administration should now bring the California Water Fix to fruition.

Respectfully yours,

Michael Thériault
 Secretary-Treasurer

cc: Governor Jerry Brown

REC12CS9

From: mike@sfbctc.org
Sent: Tuesday, July 14, 2015 4:00 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: CA Water Fix Alternative 4A
Attachments: Support Water Fix Alternative 4A.pdf

To Whom It May Concern,

Please see the attached.

Michael Theriault
Secretary-Treasurer
San Francisco Building and Construction Trades Council



Monterey/Santa Cruz Counties Building & Construction Trades Council

10300 Merritt Street, Castroville, CA 95012

Phone 831.869.3073

Email: Office@MSCBCTC.com

www.MSCBCTC.com

FPPC No. 850048

Andy Hartmann
President

John Papa
Vice President

Paul Arsenaault
Treasurer

Steve MacArthur
Recording Secretary

Ron Chesshire
CEO

July 16, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the 22 Locals and our @ 4,000 members, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a

Boilermakers #549
Bricklayers #3
Carpenters #505
Carpenters #605
Carpet, Lin. & Soft Tile #12
Elevator Constructors #8
Glaziers #1621
IBEW #234
Insulators & Asbestos #16
Ironworkers #155
Ironworkers #377
Laborers #270
Laborers #297
Millwrights #102
OP & CMIA #300
Operating Engineers #3
Painters & Tapers #272
Plumbers & Steamfitters #62
Roofers & Waterproofers #95
Sheet Metal Workers #104
Sprinklerfitters #669
Teamsters #890

greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Even though our water supplies on much of the Central Coast are not connected to the system we believe that it is imperative to fix the system as Californians and believe it may be beneficial and a source of benefit for us here on the Central Coast in the future.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,

Ron Chesshire CEO M/SC BCTC

RECIRCO

From: Ron Chesshire <ron@mscbctc.com>
Sent: Thursday, July 16, 2015 2:49 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: California Water Fix
Attachments: California Water Fix.docx

Please see our attached letter concerning support for the Governor's plan. Thank you, Ron Chesshire M/SC BCTC

From: Sharon Harston <sharonsgarden@msn.com>
Sent: Friday, July 17, 2015 9:24 AM
To: BDCPcomments
Subject: Support Alternative 4A - the California Water Fix

Sharon Harston 94922 07/17/2015

cc: Governor Jerry Brown

Subject: Support Alternative 4A - the California Water Fix and RESERVOIR PERMITTING CHANGES

California Department of Water Resources:

I see a lot of our local problems at least caused by the time and difficulty in putting in reservoirs on private projects. The water from a few hours of a storm caught in a reservoir can meet the needs of a farm or vineyard for the summer season. Instead of punitive emergency restrictions, how about issuing emergency permits? There is still time if permits are obtained in the next month to build smaller reservoirs of a few acre feet. IF the energies spent on emergency regulation were instead spent on emergency solutions for next and future years. When heavy handed restrictions, invasive questionnaires and threat of fines for failure to comply have people thinking of killing what fish are left in a creek so they won't be regulated so heavily it should be a red flag that regulation is not the answer.

Regulation on where reservoirs can be built also increase their cost. Current regulations prohibiting small gullies with only stormwater flow that could be dammed with a single embankment add to costs. It is much more expensive to build a 3 sided embankment on a hillside than a one sided embankment. And easier to release water for fish in low flow periods. The added cost can make a project unaffordable. And if it is a public project it is all our money. I do not like the attitude some have that something does not cost because there is a bond or federal grant paying for it.

I am writing to express my strong support for the California Water Fix (Alternative 4A). It represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition as quickly as possible.

Our state's aging system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. We must update this aging system to protect water supplies for our state.

The California Water Fix (Alternative 4A) is the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. It reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

The California Water Fix will replace aging dirt levees with a modern, secure water pipeline; upgrade the water distribution system to protect water supplies from earthquakes and natural disasters; and restore more natural river flows to protect fish and wildlife.

RECIRC 61

Getting to this point has been a long and thorough process. The time to act and move forward is now to protect California's water security.

For these reasons, I support the California Water Fix.

From: Enos, Cassandra@DWR <Cassandra.Enos@water.ca.gov>
Sent: Friday, July 17, 2015 10:59 AM
To: BDCPcomments
Subject: BDCP REIR/SEIS Modeling Data request

From: Richard Denton [mailto:rdenton06@comcast.net]
Sent: Thursday, July 09, 2015 11:02 AM
To: Stein, Russell@DWR
Cc: Heiland, Brian@DWR; Ryan A Hernandez; Roberta L. Goulart; Murillo, D@USBR; Cowin, Mark@DWR; Bogdan, Kenneth M.@DWR; kaylee.allen@sol.doi.gov; Jason Phillips
Subject: Additional BDCP REIR/SEIS Modeling Data request

Russ,

Can you also please provide me with the CALSIM and DSM2 modeling data for the Supplemental Modeling requested by the State Water Resources Control Board related to increased Delta Outflows (Alternative 4H3). This is described on page C-1 of Appendix C of the RDEIR/SDEIS.

This alternative (4H3) looks like a good starting point for a project that would actually address the goals of restoring and sustaining the Bay-Delta ecosystem and improving California's water supply reliability. With the addition of new storage to capture water in wet periods when it is available, and other demand reduction and local water supply projects discussed in the January 2014 California Water Action Plan, this could be a project that would meet the needs of California, not just the export water contractors.

Thank you.

Richard

Richard A. Denton Ph.D., P.E.

Richard Denton & Associates

Water Resources Engineering

6667 Banning Drive

Oakland, CA 94611

Tel: (510) 339-3618

Email: rdenton06@comcast.net

REC1062

From: Richard Denton

Sent: Wednesday, July 08, 2015 2:30 PM

To: Russ Stein

Cc: Brian Heiland DWR; Ryan A Hernandez; Roberta L. Goulart; David Murillo; Mark Cowin

Subject: New Modeling Data for REIR/SEIS

Russ,

I am a consultant to Contra Costa County and Solano County on the BDCP and Cal WaterFix. Today, Contra Costa County received a DVD containing the REIR/SEIS to be officially released on July 10.

We would also like to review the new modeling and data that have been developed for the new alternatives (4A, 2D and 5A).

Can you please make available to me the data and CALSIM and DSM2 modeling results discussed in ES.3.2.1.1 and subsequent sections. I would like the data in DSS format so that I can review the monthly CALSIM flow, storage and export data in detail, and the daily DSM2 simulations of EC and chloride at the key urban intakes in the Delta, as well as Mallard Slough, Jersey Point, Antioch, Vernalis and Port Chicago.

The Draft EIR/EIS disclosed significant adverse water quality impacts in the Delta. It is our understanding that the REIR/SEIS modeling show reduced water quality impacts. We would like to be able review your data to fully understand and confirm why these water quality changes have occurred.

I also understand that DWR is doing additional modeling studies with corrected versions of CALSIM and DSM2 for the Section 7 consultation. Can you also make those data available. As I understand it they will more closely represent the preferred project operations than the sensitivity studies presented in the REIR/SEIS.

As we will only have until August 31 to submit our CEQA/NEPA comments, the sooner we get these data, the better.

Thank you very much in advance.

RECIRC62

Richard

(510) 339-3618

Page ES-25

ES.3.2.1 Summary of Changes

ES.3.2.1.1 New Data and/or Modeling

New modeling and sensitivity analyses were conducted to evaluate the impacts to electrical conductivity (EC) from:

- Changing the existing Emmaton compliance location to a new location at Threemile Slough.
 - ❖ Monthly-daily patterning at the Delta boundary locations.
 - ❖ Including operation of the Suisun Marsh Salinity Control Gates consistent with the assumptions in the No Action Alternative.
 - ❖ Removing tidal restoration areas (as a means of understanding the contribution of restoration versus CMI to exceedances of EC objectives).
 - ❖ Revising Head of Old River Barrier operations during April and May. 7
- Chloride modeling results were updated:

From: remaxbarnes@gmail.com on behalf of Laurelee Barnes <llbarnes@remax.net>
Sent: Thursday, July 16, 2015 5:26 PM
To: BDCPcomments
Subject: Extend comment period and review period

Regarding the newly released Delta Tunnel Plan, I am requesting an extension of the comment period. 45 days is way too short.

I also want to request a longer review period.

I fear the tunnels will bring salt water into the California Delta which would be very bad for our environment and our community

Thank you!

Laurelee Barnes
3176 Oak Knoll Dr.
Los Alamitos CA 90720
562-896-7063
LLbarnes@remax.net

From: thinfilmguy <thinfilmguy@hotmail.com>
Sent: Thursday, July 16, 2015 10:54 AM
To: BDCPcomments
Subject: Please stop the tunnel

Hello,

I am one of the many thousands who love and support the Sacramento Delta, and hate to see greed destroy this amazing area by draining out precious water supply. With som many drought years, water flow is already at levers that are causing significant negative effects on this amazing fresh water estuary. Although it is sad, the farmers who bought hundreds of thousands of acres of desert in the valley, based on literally free water to irrigate, there is simply not enough water to support them. As in other parts of the world, they must seriously condider farming in areas where water is available, or install desalination plants to romove the salt now entering the lower pumping stations, and pay for their water. Other parts of the world to this. Destroying the Delta is simply not an acceptable option. The mighty Colorado river was a victim of this mismangmend and greed, and several other lakes and rivers. Please do not let it happen to the Dekta, it is time for those water hungry farms to either move, or pay the price for watering the desert.

Thank You,
Ronald James Gibson
775.721.0851

From: nicholas mongelli <njm-jr@sbcglobal.net>
Sent: Wednesday, July 15, 2015 7:41 PM
To: BDCPcomments
Subject: Delta Tunnels

The State is broke . When will our representatives get a clue?

From: Mike Barkley <mjbarkl@inreach.com>
Sent: Tuesday, July 14, 2015 4:24 PM
To: BDCPcomments
Subject: Comment on the RDEIR/SDEIS

(COMMENT ON THE BAY DELTA CONSERVATION PLAN/CALIFORNIA WATER FIX PARTIALLY RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT/ SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (RDEIR/SDEIS))

I object to the Delta Dual-Bore Tunnels proposal under Alternative 4A and under any other alternative.

This is what we need in California:
<http://www.mjbarkl.com/floods.txt>

And this is why we need it:
<http://www.mjbarkl.com/floods.htm>

This Federal project is taken from 100 years of Federal and State reports with some enhancements and includes 34-42 million acre-feet of specific additional storage with 3 new conveyances and no tunnels. It will reduce the Central Valley flooding risk from a repeat of the floods of 1861-62, the least of 7 such Biblical floods over the past 1800 years. It will also solve most of our other water problems, agriculture, cities, Delta, fish, and Colorado River overdraft.

And this budget pays for it: <http://www.mjbarkl.com/usbudget.pdf>

The tunnels solve none of this. They are a big fat waste of money. Scrap them and adopt this Federal project.

Thank you and best wishes,

--Mike Barkley, Candidate for Congress CA-10, 167 N. Sheridan Ave., Manteca, CA 95336 209/823-4817
mjbarkl.com/run.htm

RECIRC66

The problems

Floods of 1861-1862 , approx 30-35 MAF in additional Central Valley runoff
from 6 "Pineapple Express" storms in 5 weeks (runoff figure is an
off-the-record guess by a hydrologist) (mjbarkl.com/floods.htm)
Reliable, affordable irrigation supply
Loss of the snow pack to global warming
Flows for the salmon on the San Joaquin
Flows to flush salt and contaminants from the Delta
Reduced Delta pumping for the fish and the flows
No peripheral canal or silly tunnels
Hetch Hetchy
Supply for Los Angeles
Supply for Arizona and Southern Nevada
Endless squabbling and redundant expensive reports

The answer, Storage, CVP III :

Suspend § 8 of Reclamation Act/Newlands Act of 1902 and its progeny and
other conflicting statutes for this project, removes from the equation:

DWR
SWRCB
CWC
CCVFPB
CEQA
Cal ESA
Voters
Litigation
Either Reclamation or USACE

West Side Conveyance System (mjbarkl.com/westside.pdf):

Raise Shasta, +2 MAF or 9.3 maf, flood flows into West Side Conveyance System
Intercept Clear Creek/Whiskeytown/Trinity exports
Dams as part of the System on the forks of Cottonwood, Red Bank, Elder,
and Thomes, +.5 ?
Glenn Reservoir Complex, +9 to +12
Trade Dos Rios for Hetch Hetchy, +7.6 - .36 ; add Tuolumne flood storage
Sites, +1.9, below Sites, link to :
Expand and merge Glenn-Colusa and Tehama Colusa Canals , extend to
Rio Vista with siphons across the Sacramento and San Joaquin to
Bethany Reservoir; link Cross-Valley Canal from Thermalito to
Glenn-Colusa; enlarge Glenn-Colusa; line Glenn-Colusa, +.125
Berryessa expansion, +?
Oristimba Reservoir +2, Los Banos Grande Reservoir +2,
Enlarged San Luis +.13, Del Puerto Canyon +1, Garzas Creek +1

Enlarge and Extend Folsom South Canal for flood flows,
Intercept flood flows from forebays at Dry Creek, Cosumnes, Mokelumne,
& Calaveras
Extend past Stockton & across south end of Delta to Bethany,
Add a smaller Auburn Dam for flood flows, +1, more on Tuolumne +2

Add Temperance Flat, +2.5
Add Rodgers Crossing Reservoir +1

Research on reducing evaporation losses, ??

Total added storage, 36.14 - 43+ MAF ; portion to handle CV floods, 25?

Major funding: Flood Control plus trades with AZ & NV

California Central Valley's Biggest Threat: A Repeat of the Floods of 1861-1862

RECIRC66

(c) 2014, Mike Barkley

On this page I am collecting internet resources that chronicle the effects on the Central Valley of the disastrous floods of 1861-62, which hit all of California and Oregon, plus parts of Washington Territory, Nevada Territory, and Utah. I also refer to my

SPECIFIC PLAN to prevent a repeat of this disaster and thereby also solve most of the Southwest's other water problems.

By one account, the floods of 1861-1862 came from approximately 30-35 MAF in additional Central Valley runoff from a number of moderate storms, plus 3 [4?, 5?] "Pineapple Express" storms in the weeks following December 8, 1861 (runoff figure is an off-the-record guess by a hydrologist), in effect 110% - 120% of the average annual Central Valley runoff in 5 or 6 weeks on top of the usual runoff.

The only real levee system in the Central Valley at the time was Sacramento and that failed repeatedly. Sacramento's failed upstream on the American and as downtown filled with water they punched holes in the levees to let the water out, at which point some of the houses in town floated out the break and downstream. The State Capitol is now on a hill - the state jacked it up into the air and built the hill underneath it after the flood [this may not be exactly correct - a quote from the State Capitol Commissioners in the 1863 Senate & Assembly Journal Appendix below mentions a change in the grade line during construction; see also the Capitol Museum reference below about raising the grade 6 feet]. There was some damage to The State Library, see the Report quoted below from the Journal Appendix. After the flood, the merchants along I and J streets brought in fill and raised the street level and made their second floors the new first floors. Riverboats making runs to Benicia stopped following the channels and cut across country. Waters west of Colusa were 20' deep. Riverboats making runs to Red Bluff navigated by the trees sticking out of the water and on their way upstream they stopped and plucked people out of those trees. People died. There was an inland sea 300 miles long and up to 30' deep. It bankrupted the state and state employees did not get paid for a year and a half.

After the floods Marysville started building on their levees.

At a workshop of the California Central Valley Flood Protection Board in the fall of 2011 I asked the panel representatives from the Army Corps of Engineers and the Department of Water Resources what plans they have to prevent a repeat of this disaster. The gentleman from USACE said he was unaware of that flood - this is the agency most responsible for flood prevention in this country and he is unaware of California's worst flood! The gentleman from DWR said it depends on levees and floodways - perhaps. The 1861-62 flood is credited with clearing hydraulic mining debris out of channels, but more was created since then reducing channel capacity; shipping channel dredging may have offset some of that. As urged by the Yolo County Surveyor in correspondence included in the 1863 Senate Journal Appendix (below) the Yolo Bypass has been created - from his narrative the tule lands seem to have inhibited some of the Sacramento flow producing part of the back-flood in Sacramento and Stockton (see the San Joaquin County Surveyor correspondence in the Senate Journal Appendix), but it is not clear to what extent the Yolo Bypass would alleviate a repeat of the 1862 flood. And of course "reclamation" has narrowed most channels since then. Comments that there have been 7 major ARKstorms in the past 1800 years of which 1862 was the least, are not reassuring and the inundation map in the USGS Report 2010-1312 linked below suggests that the Yolo Bypass would not alleviate flooding of this magnitude..

On 02/28/2012 I asked the Board of Modesto Irrigation District, which shares flood control responsibility on the Tuolumne, what plans they have when there is a repeat of these floods. Their attorney's response? "Not our problem". True, there was no Modesto in 1861-62 but now there is. Perhaps when water is 8' deep in their offices in downtown Modesto with floating bodies from Waterford, they might then think it's their problem.

We are not prepared for a repeat of this. We have built communities in areas that will be wiped out by a repeat, affecting millions of people. Nobody is warning the people buying homes in those communities. Some of them will die. Those of you developing those communities know who you are. This is as much a risk to you as to your customers - you should be stepping up to the responsibility to implement solutions.

We need to head off a repeat of this disaster. Warning of the threat and presenting a full solution is the purpose of this page, see SPECIFIC PLAN above..

Wikipedia:

- [Great Flood of 1862](#)
- [Floods in California](#)
- [Tulare Lake](#), "Following the floods of 1861-62 and 1867-68, the highest water on record reached between 216 and 220 ft above sea level.[6][7] At that elevation, the lake overtopped the natural "spillway" (located five miles west of the current community of Halls Corner on state route 41) and flowed northward into the sea via the Boggs and Fresno sloughs and the San Joaquin River."
- [Agua Mansa, California](#)

Wikipedia Cites:

- [\[excerpts from\] Up and down California in 1860-1864: the journal of William H. Brewer](#)
- [The New York Times](#), "The Great Flood in California.: Great Destruction of Property Damage \$10,000,000". January 21, 1862 ; 1,000 Chinese drowned at Long Bar on the Yuba
- [Jan Null and Jelle Hulbert](#), "The Great Flood of 1862", in "Weatherwise", Jan/Feb. 2007, P. 27
- [The Kings River Handbook](#), Tulare Lake, Old River, Cole Slough, Scottsburg. . . .
- [The Agua Mansa Pioneer Cemetery](#) "Agua Mansa flourished until January 1862, when a great flood filled the Santa Ana River from bluff to bluff and destroyed the west bank community, leaving only the cemetery, the chapel, and Cornelius Jensen's adjoining store, built in 1854. Most of the homes in La Placita were also damaged or destroyed."
- [more coming]

Other Sites:

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• Overall:

- Selected 1861-62 text from Attachment C: History of California Flooding, in California's Flood Future: Recommendations for Managing the State's Flood Risk, PUBLIC REVIEW DRAFT April 2013.
- W. Leonard Taylor M.D. and Robert W. Taylor Ph.D., "The Great California Flood of 1862", redlandsfortnightly.org, including Bret Harte's first published story, "The Luck of Roaring Camp", a story of the flood but the year is wrong on purpose; substantial bibliography; "...as Ellis stated in 1920, this flood is not generally taken into account in flood planning simply because to have done so, the expense would have been prohibitive...."
- Leon Hunsaker and Dr. Claude Curran:
 - Leon Hunsaker and Claude Curran, "Lake Sacramento - Can It Happen Again?", November 2005, although the narrative is a bit sloppy in places, overall it is authoritative and well-researched, but no bibliography; note newspaper quotes here and there, p. 59 mention by the Nevada Daily Transcript of an Old Indian recalling a much greater flood in his lifetime, possibly 1805 or 1827, paraphrased, "If you think this is bad, you should have seen the *REALLY* big flood."
 - "Dr. Snell's Precipitation Measurements of December 1861-January 1862 Are Valid!", June 23, 2010, by Leon Hunsaker
 - Leon Hunsaker and Claude Curran, "Step by Step Development of Peak Flow Estimate on the American River @ Folsom for Record Flood: 1/10/1862", June 10, 2011, Assertion of a 440,000 - 470,000 cfs American River flow on 01/10/1862; Again: "W.T. Ellis, longtime levee boss in Marysville, had this to say way back in 1920: ' This flood is not generally taken into account in flood planning simply because to have done so, the expense would of [sic] been prohibitive.'; The Wikipedia entry for the Tuolumne River, with a slightly smaller watershed than the American, lists a maximum runoff of 130,000 cfs - applying this American River analysis and understanding that the top elevations for the Tuolumne are higher than the American, it could be argued that the Tuolumne maximum in an 1862 event may be closer to 420,000 cfs. Compare this to the reputed Don Pedro Reservoir inflow peak of 130,000 - 140,000 in January 1997 with releases of 70,000 cfs that caused considerable damage downstream.
 - Leon Hunsaker and Claude Curran, "Final Report", April 10, 2013, placed upon this web site at Leon's request; 10 meg .pdf is scanned typewritten; here is an html conversion with .jpg charts & exhibits.
 - Leon Hunsaker and Claude Curran, "IS THERE AN ECHO? Dr. Snell's 1861-62 Sonora Rainfall Measurements ARE VALID!", June 1, 2014, May 28, 2015. ;

Supplements:

- "No. 1: Revising Jan. 9-11, 1862 Rainfall Estimate For Red Dog"
- "No. 2: Correlation Between Red Dog and Sonora Rainfall, Jan. 9-11, 1862--Using February 1986 Storm Data"
- "No. 3: Correlation Between Red Dog and Sonora Rainfall, Jan. 9-11, 1862--Using Estimated Jan. 1862 Data"
- "No. 4: Evidence Supporting the Estimate 12.42 inches of Precipitation listed under Example No. 4 in Exhibit A"
- "No. 5: Atmospheric Rivers Impact on Record Jan. 1862 Floods in No. California--LIKELY OVERBLOWN"
- "No. 6: Almost Simultaneous Record Floods on Two Major California Rivers Approximately 500 Miles Apart"

Some Spillway Design Capacities:

There has been some criticism of the studies of Hunsaker and Curran. The following may tend to support their conclusions although it's a bit of apples vs. oranges as in planned-for vs. historical.

▪ **Tuolumne River/New Don Pedro Dam**

For the Tuolumne River, from The Greening of Paradise Valley, The First 100 Years of the Modesto Irrigation District, Chapter 17, in seven paragraphs about halfway down, the MID History describes the New Don Pedro bypass capacity:

```

300,000 cfs emergency spillway
172,000 cfs service spillway
  7,370 cfs diversion tunnel internal gates
  4,100 cfs max thru turbines
  3,100 cfs howlflow jet valve
-----
486,570 total cfs
=====

```

The Tuolumne is a bit longer and with a bit smaller overall basin than the American but that makes this total even more impressive. 50,000 cfs of spill in January 1997 produced flooding in West Modesto and contributed to flooding on the lower San Joaquin. For several years I have asked MID for the calculations behind these totals and so far they have avoided answering.

▪ **American River/Folsom Dam**

Folsom Dam on the American, a larger watershed than the Tuolumne and further north, with a shorter line from crest of the watershed to the dam site. - per https://en.wikipedia.org/wiki/Folsom_Dam

```

115,000 Outlet works
567,999 Spillway
320,000 New Auxilliary Spillway, http://ussdams.com/proceedings/2010Proc/1389-1402.pdf p. 1390
-----
1,002,999 Total Folsom Dam Bypass (looking for other confirmation of this)
=====

```

[in the wiki, the footnoted reference [4] is a busted link - wiki numbers don't seem to include the new spillway works. In various discussions of the new Auxilliary Spillway, it is apparently intended for earlier release, not additional release which would mean intended maximum bypass is 682,999 cfs.]

There seems to be an inconsistency between the thinking of the engineers designing these dams and those responsible for statewide flood planning, with the statewide planners far behind the thinking of the design engineers. On the other hand, these two dams seem to be the exception - most, like New Melones or Oroville, seem to be undersized in comparison.

- 1861-62 Sacramento floods provide insight into current risk June 25, 2012, "Sac History Happenings", Sacramento Bee

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- By: Cosmo Gavin/Sacramento News and Review. "The Great Flood of 1862 of Sacramento and why Meteorologist Leon Hunsaker says it could happen again.", Jul 2, 2012
- Deluge in the Sierra. foothills turned Valley into a lake in winter of 1861-62. experts confirm By Jeff Jardine, February 3, 2014
- Jeff Jardine: Further evidence of wild weather of 1862 By Jeff Jardine, June 16, 2014 ;
- February 23, 1999 DWR report "Analysis of 1862 Precipitation and Runoff" [not yet found on-line - ref'd in Hunsaker reports]
- David C. Curtis, Bryan Martinez, Gary Estes. "Great Flood of 1862 - A Modern Perspective." "Thomas Rowlandson, Meteorology of the United States and Territories of the Pacific. . . Speaking of a larger storm previous to 1862 said the following -'marks exist on trees, growing in the San Joaquin Valley, showing that a former flood had been fully six feet higher.' He was told by Indians that it had occurred 40 years previous to 1862."
- Thomas Rowlandson, F.G.S.L., "Notabilia of the Floods of 1861-'62", pp. 27-33, in ed. William H. Knight, "Hand-Book Almanac for the Pacific States", [the 50,000,000 square mile number impairs the credibility of this account.]
- Scientific American,
 - "Megastorms Could Drown Massive Portions of California [Preview]", Michael D. Dettinger & B. Lynn Ingram, December 18, 2012 and
 - "California Mega-flood: Lessons from a Forgotten Catastrophe", B. Lynn Ingram, January 19, 2013
- "California's Other Storm of the Century", Jay Kimball at 8020 Vision, 22 December 2010
- Larry Schick, "Warning from the Past: The message, meteorology and myths from the Great West Coast flooding of 1861- 1862", U.S. Army Corps of Engineers - Seattle District, presentation slides full of facts: myths pp. 9 - 15; Los Angeles area inundation maps p. 65 ; sudden huge Southern California inland lakes map [??] p. 67 ; other areas pp. 68 - 69; (Major eruption, Dubbi volcano, North Africa, May 1861 - Largest historic volcanic eruption in Africa ?) from 2012 California Extreme Precipitation Symposium. The 1861-1862 Floods: Informing Decisions 150 Years Later

• **ARkStorms:**

- Winter Storm: Multi-Hazard West Coast Winter Storm Project - ARkStorm (Atmospheric River Storm) studies, "The geologic record shows 6 megastorms more severe than 1861-1862 in California in the last 1800 years, and there is no reason to believe similar events won't occur again."
- This is ARkStorm, USGS Animation Video on the risk to California [7 ARkStorms from the geologic record of the past 1800 years, list modified to match the 9.8 meg report below: 212, 440, 603, 1029, 1418, 1605, 1862 - www.arkstorm.com is actually a link to the caltech website above]
- Atmospheric River Information Page, including links.
- Atmospheric River Q & A "A major flood in California, known as the 'New years Day Flood' in 1997 cause [sic] over \$1 Billion in damages and had a well-defined AR."
- Overview of the ARkStorm Scenario, U.S. Geological Survey Open-File Report 2010-1312, cover page, link to the 9.8 meg report plus two appendices, on the right side of that page; Report is a detailed description of a possible storm event similar to 1861-62 producing \$725 billion in damages; includes some comment and discussion here and there on the actual 1861-62 event; Fig. 8, map of projected valley floor inundation, omits stream flooding? Fig. 20, SR-120 flooded to South Main? p. 50, 10 counties most severe CV flooding including San Joaquin; p. 92 Fig. 51 & p. 109 Fig. 59 show projected inundation of all of Stockton; for San Joaquin County, some 480,000 people (2009) live in inundation areas, Stanislaus, only 1488; p. 164, projected interruption of at least 3 months of water deliveries to South of the Delta; p. 171, 1861-62 was the least severe of the 7 events;
- [USGS sent me this kmz file in response to my request for a better resolution copy of Fig. 8 on p. 11 of Report 2010-1312. Note that the inundation overlay for Stockton & Sacramento is considerably different from those on pp. 92 & 109, and that the flooding footprint shown for Knight's Ferry, Stockton, the Stanislaus and Tuolumne substantially understates (by half?) the actual inundation described in anecdotal news reports in mjbarkl.com/union.htm and the comments from the County Surveyors to the State Surveyor General at mjbarkl.com/surveyor.htm .
- Michael D. Dettinger, et al., "Design and quantification of an extreme winter storm scenario for emergency preparedness and planning exercises in California", 2011
- Michael D. Dettinger, "Climate Change, Atmospheric Rivers, and Floods in California - A Multimodel Analysis of Storm Frequency and Magnitude Changes": 2011, you know, as in global warming?
- Posted by: Christopher C. Burt, California's Superstorm: The USGS ARkstorm Report and the Great Flood of 1862 , 8:54 PM GMT on January 26, 2011 - summary of ARk articles

• **Volcanos? Did they have anything to do with this?**

- Dubbi Volcano, Eritrea, May 1861 - Pierre Wiart and Clive Oppenheimer, "Largest Known Historical Eruption in Africa: Dubbi Volcano, Eritrea, May 1861," Geology, Vol. 28 (April, 2000), pp. 291-294, Abstract - or full text from EBSCO via your local library - from the Abstract: "An anomalously cold Northern Hemisphere summer in 1862, recorded in tree-ring records, could be the result of Dubbi's sulfate aerosol veil."
- Makian volcano, Indonesia, late December 1861 - "The largest volcanic eruption anywhere in the world during 1861-1865 was possibly Makian volcano, Indonesia, which [erupted] from 28 Dec 1861 to October 1862." wiki article;
- What would the influence be of both combined?
- Unless playing havoc with the earth's magnetic field could affect volcanos and thus weather, presumably the Solar storm of 1859 is irrelevant.

• **Ohio, Danube, Moisy, Palestine, Hawaii?**

- Sacramento Daily Union, Volume 22, Number 3408, 1 March 1862, p. 2
NEWS OF THE MORNING.
By Overland Telegraph . . .
Verily, this has been a Winter of inundations. We have suffered heavily on the Pacific coast from the superabundance of the aqueous element. The valley of the Ohio has also experienced the disastrous effects of an overflow. And next, we hear from the distant Danube--the greatest of European rivers--of a most destructive flood, consequent upon a rain of four days duration. In one district alone it is reported that 80,000 persons need relief. Pesth and Presburg, in Hungary, had been inundated, and bridges, viaducts and other valuable property destroyed. The railroad

property reported to be damaged is probably that of the line running from Pesth to Vienna via Presburg--which is within the reach of an inundation. . . .

- [For more on the Ohio floods see 4 March p.4 & 5 March p. 1 in the massive [Sacramento Daily Union](#) archive also linked at the bottom of this page. - How unusual is it to have the Santa Ana at peak flood on 01/22/1862 the same day the Ohio is in full flood and rising?]
- [Sacramento Daily Union](#), Volume 22, Number 3420, 15 March 1862, p. 2
New York, March 7th,
Intelligence from Bremen, January 15th, states there has been a great flood in the Moisy. Three cities were destroyed, and thirty lives lost. . . .
- [Sacramento Daily Union](#), Volume 22, Number 3409, 3 March 1862, p. 3
THE FLOOD IN PALESTINE.--Late advices state that immense quantities of rain have recently fallen in the Holy Land. The cisterns at Jerusalem have been filled as they have not been for the last two hundred years. The flood appears to have visited the entire world, with the exception of Eastern Asia, and further advices may take away this exception. . . .
- [For Hawaii see 19 March p.3 in the massive [Sacramento Daily Union](#) archive also linked at the bottom of this page.]

• Local/Regional:

- From "[History Link . The Free Online Encyclopedia of Washington State History](#)" 1861-62, first wet, then bitter cold, worst Washington Territory Winter so far; mentions Dubbi eruption, Eritrea 1861
- [Edward Lansing Wells](#) "Notes on the Winter of 1861-2 in the Pacific Northwest". Northwest Science 21: 76-83 (1947); Oregon
- [John Carr](#) "Pioneer Days in California", 1891, pp. 291-295, Trinity River during the December 1861 floods
- Justus H. Rogers, "Colusa County Its History Traced from a State of Nature through the Early Period of Settlement and Development, to the Present Day with A Description of its Resources, Statistical Tables, Etc. Also Biographical Sketches of Pioneers and Prominent Residents", 1892; a [searchable copy](#) and a plain text alternative is on Google among other places; [1861-62 floods at pp. 90-91](#)
- [W. T. Ellis](#), [72 Years in Yuba County, California](#), Chapter LXII, The Great Floods of the Winter of 1861-62, pp. 190 - 196
- A few paragraphs from [Robert Kellev](#), [Battling the Inland Sea. American Political Culture, Public Policy, & the Sacramento Valley, 1850 - 1986](#)
- [Capitol Museum web site](#): [State Capitol construction problems](#). "Work on the Capitol began again in August 1862. Construction crews hauled wheelbarrows of dirt to raise the building's ground line by six feet to protect against future flooding problems." Six feet? The hill looks higher than that.
- [Appendix to Journals of the Senate and Assembly of the Seventeenth Session of the Legislature of the State of California](#), Volume 1, 1868, Containing:
Report 11, Report of the Joint Committee on Public Buildings in Relation to the Construction of the State Capitol, 96 pages. Includes considerable testimony relating to the problems with the American River and Sacramento River channels and levees;
Resolution related to suitability of Sacramento for the Capitol, etc.
 - p. 1, Engineering assessment of the building, foundation, site, subsidence, cracks, fissures, materials, etc.;
 - pp. 12 - 13, 14, levee defences, shoaling, etc.
 - pp. 26 - 28, disagreements with the Capitol foundation contractor.
 - p. 43 - 45, W. F. Knox, former Levee Commissioner; raising the grade; pp. 44 - 45, the levees.
 - p. 68 - 70, Leonard Goss, Levees
 - p. 70, C. H. Ross, Levee Commissioner
 - p. 71 - 72, Charles H. Swift, President of City Board of Trustees, formerly of Levee Commission;
 - p. 72 - 78, Lewis B. Harris, Levee Commissioner
 - p. 78 - 84, A. P. Smith (of Smith's Garden) Smith's Garden, once the agricultural showpiece of Sacramento, Smith financially ruined by various levee and channel decisions of the State and City
 - p. 84 - 87, M. S. Hurd, Levee Commissioner, defends leaving Smith outside the levee
 - p. 87 - 88, B. R. Crocker, Levee Commissioner,
 - p. 88 - 90, John Doherty, Civil Engineer for Levee Commissioners, levee planning
 - p. 90 - 92, W. C. Hopping, Levee Commissioner, defending against Mr. Smith's concerns
 - p. 92 - 93, I. M. Hubbard, Contractor, workings of the American river bars
 - p. 93 - 94, Alfred Redington recalled, stream velocities
 - p. 94 - 95, E. A. Poole, captain steamboat Capital, shoals
 - p. 95, E. Fouratt, river pilot,
- [Excerpts on flood damage from](#) Smiths Gardens, Sacramento Showplace of a Century Ago, Sacramento Historical Society, Golden Notes, Vol. 5, No. 1, October 1958; and [The Saga of Burns Slough](#), By Stewart Mitchell, Sacramento Historical Society, Golden Notes, Vol. 7, No. 4, June 1961;
- [Alice Madeley Matthews](#), [The Great Flood of 1861](#), Sacramento County Historical Society, Golden Notes, Summer, 1982, v. 28, No. 2; Presley & Sarah Dunlap, John & Hattie Hunt, et al., in the floods of 1861-62; p. 10 is a contemporary map of Sacramento which will help in reading the large Sacramento Union page below.
- [Mark Twain's Interior Notes](#), [Correspondence of the San Francisco Bulletin](#) November 30, 1866, Raising the street grades in Sacramento.
- [\[Excerpts from:\] Walker R. Young](#), "Report on salt water barrier below confluence of Sacramento and San Joaquin Rivers, California" 1929
- [\[Excerpts from:\] 1863 CA Legislature. Appendix to Journals of Senate and Assembly, 14th Session.pdf](#), supplementing portions included in the "barrier" report above
- [Ralph Lea and Christi Kennedy](#), [Floods of mid-1800s turned Central Valley into vast inland sea](#), Lodi News-Sentinel . Jan 20, 2006, p. 6 Mokelumne City & region,
- [Robert E. Bonta](#), [Great Flood of 1861-62](#), San Joaquin Historian, Vol VIII, No. 4, 1973 Stockton in the floods ; and a [poor OCR scan](#) ;
- [John D. Newbold](#), [The Great California Flood of 1861-1862](#), San Joaquin Historian, Vol V New Series, #4, 1991 a regional survey, 80 footnotes.
- [Excerpts from Frank T. Gilbert](#), [History of San Joaquin County, California](#); with illustrations descriptive of its scenery, residences, public buildings, fine blocks, and manufactories, from original sketches by artists of the highest ability.
- [Excerpts from George Henry Tinkham](#), "History of San Joaquin County, California : with biographical sketches of leading men and women of the county who have been identified with its growth and development from the early days to the present" (1923)
- [Excerpts from George H. Tinkham](#), [History of Stanislaus County California](#) : with biographical sketches of the leading men and women of the county who have been identified with its growth and development from the early days to the present (1921) [from a different online source]

- Compiled by Robert LeRoy Santos, "Chronology of Stanislaus County History Through 1912 With Bibliography" "1849. . . The town of Knights Ferry was founded by trapper and hunter William Knight. Knight had been with Fremont's expedition and felt the site perfect for a ferry crossing. The first county bridge was located at Knights Ferry, which washed away during 1862 flood, but later rebuilt. "Winter 1861-1862. The rivers swelled in a horrific flood that inundated many river settlements."
- *Stanislaus Stepping Stones*, vol. 36, No. 4, "A Quarterly Journal of the McHenry Museum & Historical Society", Fall 2012, "California Under Water", "The Great Flood of 1861-1862", relevant contents:
 - p. 1997 - The Great California Flood of 1861 - 1862, from Taylor brothers, above.
 - p. 1998 - L.C. Branch's personal experiences, from L. C. Branch , *History of Stanislaus County*, Elliott & Moore, 1881
 - p. 2000 - Charles Dallas bio, John Dallas bio, from Branch, above.
 - p. 2001 - Robert L. Dallas bio, from G.H. Tinkham, *Stanislaus*, above
 - p. 2004 - I.N. "Jack" Brotherton about Knight's Ferry, from Brotherton, *Annals of Stanislaus County, Rivers & Ferries*, 1982, p. 93
 - p. 2004 - L.C. Branch about Knight's Ferry, from Branch, above.
- HISTORY OF SNELLING. San Joaquin Valley Argus June 18, 1870 Contributed by Thomas Hilk: "In the winter of 1861-62 the old Snelling hotel, Judge Fitzhugh's residence and orchard, and some other buildings were destroyed by the memorable flood of that time which, together, with the instability of the titles to lots, and the land surrounding the town, checked the growth of the place for several months. "
- The Call of Gold (1936) by Newell D. Chamberlain. CHAPTER XXV. GAZETTE NEWS, 1862 TO 1870; ". . . breaking up of the hotel at Snelling, caused by a flood from the Merced River, when part of a mountain slid into the river, temporarily damming it and when it broke a torrent thirty feet high went down the river, carrying away Benton mills and a part of Snelling. . . ."; ". . . the mail contractors, Fisher & Company, it should be said that they have had their principal stations swept away. They were without hay and barley to a great extent. Horses were lost and their whole line damaged and in a measure broken up. . . ."; provisions got scarce & expensive.
- [more coming]

More Other:

- Wagon Wheels, Journal of the Colusa County Historical Society Vol. 4, #2, Nov. 1954 , p. 3, Eagle Peak, 04/1962, Ford first man buried at Newville Cemetery (North Fork Stony Creek, Western Glenn County); "A woman and a girl, drowned while crossing the creek at Newville during high water [January, 1862?], had been buried there before." by Mabel Bofinger; visited Ford's grave 05/04/1953 "Some one had kindly cleaned the marble, so that it was easy to read the inscription, Ford 'died May 4th, 1862, aged 24'
- Manteca soils maps, such as http://soildatamart.nrcs.usda.gov/manuscripts/CA077/0/maps/san%20joaquin_map25.pdf, clearly shows a pattern of swales and lenses. Note how the direction of the trend changes at approximately French Camp Road. For areas south of that road the message is clear: historical floods from the Stanislaus River laid down the soils in the Manteca area in a southeast-northwest pattern, although not necessarily in recent times.
- Our third river, "Alive in all seasons, the Yolo Bypass is a mystery to most area residents. But make no mistake: Without it, Sacramento would have gone underwater years ago."; Bypass capacity 500,000 cfs, main Sacramento capacity 100,000 cfs - is this 500,000 an increase or a decrease from the "over-land" capacity in 1861-62?

Contemporary Newspaper Articles:

[Caveat: Newspapers are not always precisely accurate.]

- Red Bluff Independent
- Colusa Sun
- Marysville Appeal
- Sacramento Union - 4,010,000 bytes so far, guessing more than 5 meg total (or larger than "War and Peace" or "Atlas Shrugged" at 2.8 meg); although the *Union* apparently held back a bit on some of the Sacramento flood stories in light of the campaign to strip the Capital from Sacramento; to understand Sacramento locations described, see map at p. 10 of Alice Madeley Matthews. The Great Flood of 1861 ; breaking the text up in terms of Sacramento inundations but each period includes dispatches from throughout the West Coast:
 - Prelude - heavy fall snows, text in progress, 12,036 bytes
 - First Sacramento inundation 12/10/1861 [press date] following torrential warm rains, 552,853 bytes
 - Second Sacramento inundation 12/24/1862 [press date], period ending with heavy snow down to the valley floor and frozen ground at higher elevations, 349,816 bytes
 - Third Sacramento inundation 01/10/1862 [press date] again following torrential warm rains followed by heavy snows, 625,890 bytes - note how the early December storm did so much damage to communications that it was a long time before it was realized that the early January storm was much worse.
 - Fourth & Fifth Sacramento inundations 01/20/1862 [press date] torrential warm rainse 1756194 bytes, 01/27/1862, p. 2 and 01/29/1862 p. 2 are comments about modifying requirements for tending stock because of the widespread loss of fencing - The first patent for barbed wire was issued in 1867 so presumably the huge quantity of fencing washed away in these accounts was labor-intensive wood rail, a disaster for the farmers and ranchers.
 - Sixth Sacramento inundation, 02/25/2014 [press date]
 - Aftermath & analysis
- The Daily Bee
- California Farmer
- Alta California
- Amador Ledger
- Mariposa Gazette
- Stockton Independent
- Visalia Delta
- Los Angeles Star
- [more]

Storm & Flooding Timeline

--Mike Barkley, 167 N. Sheridan Ave., Manteca, CA 95336 (H) 209/823-4817
mjbarkl@inreach.com
No more excuses! - Cure Multiple Sclerosis now!

RECEIVED

From: Linda Bergeron <ljb_3@comcast.net>
Sent: Tuesday, July 14, 2015 4:09 PM
To: BDCPcomments
Subject: Delta Tunnels

Stop the tunnel project. We don't think it is a good idea.
Bergeron

Sent from my Verizon Wireless 4G LTE Smartphone

Sincerely, Skip and Linda

From: GRAHAM207@aol.com
Sent: Tuesday, July 14, 2015 2:47 PM
To: BDCPcomments
Subject: (no subject)

Extend the comment period!!!! A 16 Billion Dollar Project and a 45 day comment period! I know you want to railroad this through but be reasonable. Besides that you lost all credibility when you sold this as an Ecology project and then dropped that part from the proposal. It's a water grab, pure and simple.

From: Jenny Skrel <skrel@isd.us.com>
Sent: Tuesday, July 14, 2015 2:42 PM
To: BDCPcomments
Subject: DVD copy of Recirculated Darft EIR/Supplemental Draft EIS

Please send the DVD to:

Jenny Skrel
District Engineer
Ironhouse Sanitary District
450 Walnut Meadows Drive
Oakley, CA 94561
925-625-2279 (main office)
925-809-3008 (direct office)
925-584-4868 (cell phone)
skrel@isd.us.com

Thank you.

From: Humphrey, Shay
Sent: Tuesday, July 14, 2015 12:07 PM
To: BDCPcomments
Subject: FW: BDCP/WaterFix Partially Recirculated Draft EIR/Supplemental Draft EIS Available for Public Review- Comment Begins July 10, 2010

SHAY HUMPHREY

shay.humphrey@icfi.com
661.304.5839 (m)

From: Steve Mayo [<mailto:Mayo@sjcog.org>]
Sent: Tuesday, July 14, 2015 8:11 AM
To: lauren.bisnett@water.ca.gov; info@BayDeltaConservationPlan.com
Cc: Laurel Boyd
Subject: FW: BDCP/WaterFix Partially Recirculated Draft EIR/Supplemental Draft EIS Available for Public Review- Comment Begins July 10, 2010

Lauren and staff,

My name is Steven Mayo and I am the Program Manager of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Our agency is the administrator of the county-wide habitat conservation plan which has a vast overlap with the proposed project. The SJMSCP has been in collaborative discussions with the various staff members of the prior BDCP planning efforts (Natural Resource Agency, DWR, ICF, etc.) as to the potential impacts and issues regarding the proposed project. We would like to continue the efforts on the revisions to the BDCP.

With the recirculation of the RDEIR/SDEIS, our staff would like to request a sit down meeting to discuss the new approach and specifics on the changes related to the San Joaquin County plan area (mitigation sites, restoration opportunities, land owner issues, etc.) to continue the collaborative efforts. Our staff would like to have the meeting in a timely manner in order to prepare and provide comments to the RDEIR/SDEIS by the very tight deadline of August 31st.

If you could direct our staff to the correct person(s), I would greatly appreciate it. My contact information is below so please do not hesitate to reach me.

Sincerely,

Steven Mayo
Program Manager
Habitat Conservation Plan
San Joaquin Council of Governments
555 East Weber Avenue
Stockton, CA 95202
209-235-0600 phone
209-235-0438 fax
www.sjcog.org

From: Bay Delta Conservation Plan [<mailto:info=BayDeltaConservationPlan.com@mail161.atl61.mcsv.net>] **On Behalf Of**
Bay Delta Conservation Plan

Sent: Thursday, July 09, 2015 10:18 AM

To: Steve Mayo

Subject: BDCP/WaterFix Partially Recirculated Draft EIR/Supplemental Draft EIS Available for Public Review- Comment Begins July 10, 2010

RE CIRC TO

BAY DELTA CONSERVATION PLAN / CALIFORNIA WATER FIX

eNEWSLETTER

July 9, 2015

Bay Delta Conservation Plan/California WaterFix Partially Recirculated Draft Environmental Impact Report/Supplemental Draft Environmental Impact Statement (RDEIR/SDEIS)

Now Available for Public Review - Public Comment Period Begins July 10, 2015

Proposed Project: The RDEIR/SDEIS has been prepared by the lead agencies (California Department of Water Resources and U.S. Bureau of Reclamation) to provide the public and interested agencies an opportunity to review engineering refinements made to the water conveyance facilities; to introduce new sub-alternatives: Alternatives 4A (California WaterFix), 2D and 5A; to explore multiple regulatory approaches; and, to include updated environmental analyses that, in part, were conducted in response to issues raised in the more than 12,000 comments received on the 2013 Draft Bay Delta Conservation Plan (BDCP) Environmental Impact Report/Environmental Impact Statement (EIR/EIS). Alternative 4A is the new California Environmental Quality Act (CEQA) Preferred Alternative, replacing Alternative 4 (the proposed BDCP). Alternative 4A is also the NEPA Preferred Alternative, a designation that was not attached to any of the alternatives presented in the Draft EIR/EIS. Alternative 4A includes water conveyance facilities (three new intakes along the Sacramento River and dual-bore tunnels to convey water to the existing state and federal pumping facilities) and operations elements similar to the BDCP (Alternative 4) and habitat restoration measures and other environmental commitments necessary to satisfy State and Federal environmental laws. Alternative 4A embodies a new regulatory approach for gaining necessary permits and authorizations for implementation under the California Endangered Species Act (CESA) and Federal Endangered Species Act (ESA). The RDEIR/SDEIS evaluates the potential impacts related to changes to Alternative 4, the preferred alternative (Alternative 4A) and two additional sub-alternatives, Alternatives 2D and 5A. The RDEIR/SDEIS also includes other substantive changes and information added in response to technical comments received on the December 2013 public review draft documents. The RDEIR/SDEIS only includes those sections where changes or modifications have been made that necessitate additional public review according to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Public Review Period: The RDEIR/SDEIS is being made available to the public in accordance with CEQA and NEPA beginning July 10, 2015 through August 31, 2015. The comment period ends 45-days after the publication of the Environmental Protection Agency's (EPA) Federal Register Notice.

During the comment period, written comments may be submitted via:

- Mail to BDCP/WaterFix Comments, P.O. Box 1919, Sacramento, CA 95812
- Email to BDCPComments@icfi.com

- At public meetings (see below)

Copies of the RDEIR/SDEIS: Hard copies of the documents are available at the Department of Water Resources, 3500 Industrial Blvd., Room 117, West Sacramento, CA 95691 and at the Bureau of Reclamation, MP100, 2800 Cottage Way, Sacramento, CA 95825. The documents are available electronically on the project website at www.BayDeltaConservationPlan.com and at libraries throughout the state. Visit www.BayDeltaConservationPlan.com to find a location near you. Electronic copies of the documents referenced in the RDEIR/SDEIS will be available at the DWR Office at 3500 Industrial Blvd., Room 117, West Sacramento, CA 95691.

Public Meetings: Two public meetings will be held to provide more information on the contents of the RDEIR/SDEIS and to accept public comments.

- **Sacramento** - Tuesday, July 28, 2015, 3:00 – 7:00 p.m., Sheraton Grand Sacramento Hotel, Magnolia Room, 1230 J Street, Sacramento, CA 95814.
- **Walnut Grove** – Wednesday, July 29, 2015, 3:00-7:00 p.m. Jean Harvie Senior and Community Center, 14273 River Road, Walnut Grove, CA 95690.

All substantive comments received on the RDEIR/SDEIS (and those previously received during the comment period for the 2013 BDCP Draft EIR/EIS) will be responded to in the Final EIR/EIS and considered in the decision-making process. No final decisions have been made regarding going forward with the proposed project or in selecting an alternative; those decisions will only occur after completion of the CEQA and NEPA processes.

Anticipated Impacts: The document presents potentially significant environmental effects (and, where appropriate, measures to avoid, minimize, and mitigate these effects) in the following areas: Groundwater; Water Quality; Soils; Fish/Aquatic Resources; Terrestrial Biological Resources; Land Use; Agricultural Resources; Recreation; Socioeconomics; Visual and Aesthetic Resources; Cultural Resources; and Transportation; Public Services and Utilities; Air Quality and Greenhouse Gases;

Hazardous Waste Sites: The Plan Area includes several hazardous waste sites enumerated under Section 65962.5 of the California Government Code. Those sites are: Arcady Oil Company; Spezia Flying Service; Somerhalder, Bruce; Southern Junction; Valley Oaks Food & Fuel; Auxillary Transmission Site; Bens Drug Store; Byron Bethany Irrigation District; CDF Delta Conservation Camp; Chevron – Bruns Property; Chevron Texaco, Bruns, Byron; EB Stone; Five Star Petroleum (Former); Former BC Stocking Terminal; Kinder Morgan Energy Partners, LP; Los Vaqueros Water Conveyance Pipeline Project;

Noise; Hazards and Hazardous Materials; Public Health; Mineral Resources; and Paleontological Resources.

Noss Bros Trucking; Primasing Residence; Ravenswood (Delta Lakes); Sarale Farms Inc; Texaco Weldon & Compilli Property; Unocal Bulk Facility-Walnut Grove; UPN 31 Transmission Tower; Vollman Property; Windmaster; J R Simplot Company.

For more information, assistance in locating the documents or if you have special needs, contact 866-924-9955.

CONTACT US FOR MORE INFORMATION!

Para más información por favor llame al
Để biết thêm thông tin, xin gọi số
Para sa karagdagang impormasyon, mangyaring tumawag sa

如欲瞭解更多資訊，請致電
Kom tau lus qnia nbxiv, thov hu
សំរាប់ព័ត៌មានបន្ថែមទៀត សូមទូរស័ព្ទទៅលេខ

866.924.9955

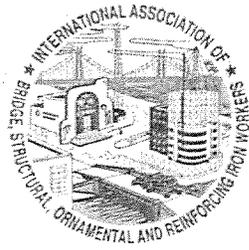




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Contact Us:
info@BayDeltaConservationPlan.com | 866.924.9955 | BayDeltaConservationPlan.com

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Ironworkers Local 433

International Association Of Bridge, Structural &
Ornamental Iron Workers A.F.L.- C.I.O.

17495 HURLEY STREET EAST

CITY OF INDUSTRY, CALIFORNIA 91744

PHONE: (626) 964-2500
FAX: (626) 964-1919
mike@ironworkers433.org

MICHAEL SILVEY
Financial Secretary-Treasurer
Business Manager

July 21, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of Ironworkers Local 433, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

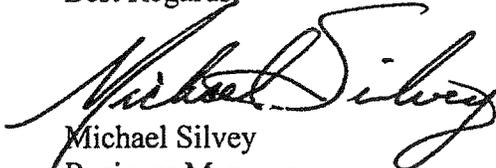
The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Best Regards,



Michael Silvey
Business Manager
Local 433

RECIRC71

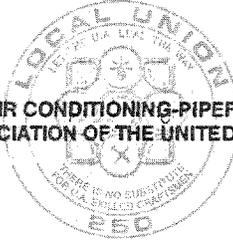
From: Monica Urrea <monica@ironworkers433.org>
Sent: Tuesday, July 21, 2015 10:40 AM
To: BDCPcomments
Cc: governor@governor.ca.gov
Attachments: Support Alternative 4A of California Water Fix.pdf

Thank you for your time.

*Monica Urrea
Office Manager
Local 433
626-964-2500
626-964-1919 fax*

Local Union 250

RECIRC72.



**STEAM-REFRIGERATION-AIR CONDITIONING-PIPEFITTERS AND APPRENTICES
OF THE UNITED ASSOCIATION OF THE UNITED STATES AND CANADA**

PETER WOHLGEZOGEN
President

GEORGE M. VASQUEZ, JR.
Business Manager/
Financial Sec'y-Treas.

GLENN J. SANTA CRUZ
Asst. Business Manager

JOE MACIAS
PAC Chairman

18355 SOUTH FIGUEROA STREET, GARDENA, CA 90248-4217
Business Manager's Office (310) 660-0035 Finance Office (310) 660-0042
Refrigeration Office (310) 660-0045 Steamfitter Dispatch Office (310) 660-0049
Steamfitter Apprenticeship Office (310) 323-4475 Main Fax (310) 329-2465

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BEN CLAYTON
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RUBEN MAGAÑA
GEORGE C. VASQUEZ
NAT WILLIAMS

Organizers
FELIX BRUCE
JERRY ELLIOTT
JOE MACIAS
STEPHEN SHUTE

July 21, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of United Association Local Union 250, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future

droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Ben Clayton
Asst. Bus. Mgr.

From: no-reply@ua250.org
Sent: Tuesday, July 21, 2015 10:47 AM
To: BDCPcomments; governor@governor.ca.gov
Subject: Water Fix Comments
Attachments: Water Fix Comments.pdf

Please open the attached document. It was scanned and sent to you using a Xerox multifunction device.

Attachment File Type: pdf

multifunction device Location: machine location not set
Device Name: localhost

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Local Union 250

RECIRC73.

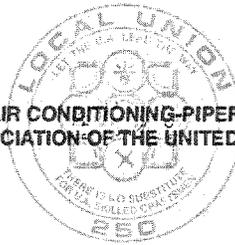
PETER WOHLGEZOGEN
President

GEORGE M. VASQUEZ, JR.
Business Manager/
Financial Sec'y-Treas.

GLENN J. SANTA CRUZ
Asst. Business Manager

JOE MACIAS
PAC Chairman

STEAM-REFRIGERATION-AIR CONDITIONING-PIPEFITTERS AND APPRENTICES
OF THE UNITED ASSOCIATION OF THE UNITED STATES AND CANADA



18355 SOUTH FIGUEROA STREET, GARDENA, CA 90248-4217
Business Manager's Office (310) 660-0035 Finance Office (310) 660-0042
Refrigeration Office (310) 660-0045 Steamfitter Dispatch Office (310) 660-0049
Steamfitter Apprenticeship Office (310) 323-4475 Main Fax (310) 329-2465

Business Representatives
BEN CLAYTON
JERRY ELLIOTT
JACK FERRARA
HERB KLEEMAN
FRED LARKIN
RUBEN MAGAÑA
GEORGE C. VASQUEZ
NAT WILLIAMS

Organizers
FELIX BRUCE
JERRY ELLIOTT
JOE MACIAS
STEPHEN SHUTE

July 21, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of United Association Local Union 250, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future

droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

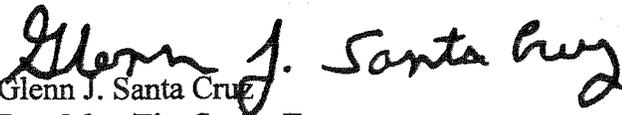
The California Water Fix (Alternative 4A) will:

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- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,


Glenn J. Santa Cruz
Bus. Mgr./Fin. Sec'y. Treas.

RECIRC73

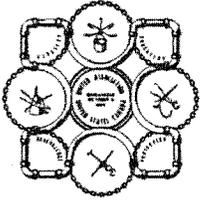
From: no-reply@ua250.org
Sent: Tuesday, July 21, 2015 10:47 AM
To: BDCPcomments; governor@governor.ca.gov
Subject: Water Fix Comments
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Device Name: localhost

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UNITED ASSOCIATION
of Journeymen and Apprentices of the
Plumbing and Pipe Fitting Industry of
The United States and Canada

Founded 1889

UA Local Union: **78**

RECIRC74.

William P. Hite
General President

Mark McManus
*General Secretary-
Treasurer*

Stephen F. Kelly,
Assistant General President

July 21, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of Plumbers Local Union 78, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

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For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Gary L. Cook
Business Manager

GC:tp OPEIU #537

From: Tawni Patrick <T.Patrick@uaplumber78.com>
Sent: Tuesday, July 21, 2015 10:27 AM
To: BDCPcomments
Cc: 'governor@governor.ca.gov'
Subject: BDCP Water Fix Comments
Attachments: BDCP Water Fix Comments.pdf

Please see the attached letter written on behalf of Plumbers Local 78 in strong support of the California Water Fix (Alternative 4A).

Thank you,

UA Plumbers Local Union 78

Office: 213/ 688-9090 | Fax: 213/ 627-4624 |
1111 W. James M. Wood Blvd., Los Angeles, CA 90015 |



Please consider the environment before printing this e-mail



Local Union 684
INTERNATIONAL BROTHERHOOD
OF ELECTRICAL WORKERS

Serving Stanislaus, Merced, Tuolumne, and Mariposa Counties Since 1910

July 20, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the men and women of The International Brotherhood of Electrical Workers Local Union 684, I am writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

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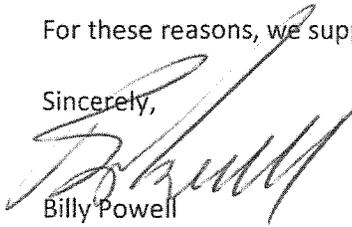
REC1PC75

- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Billy Powell
Business Manager

RECIRC75

From: Billy Powell <billy@ibewlu684.org>
Sent: Monday, July 20, 2015 4:05 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Support Alternative 4A of California Water Fix
Attachments: Support Alternative 4A of California Water Fix IBEW 684.pdf

Hello,

Please see attached letter of support for Alternative 4A of California Water Fix.

Thank you,

Billy Powell

Business Manager

IBEW Local 684

209-524-5171

...the right choice
ibew



Please consider the environment before printing this e-mail

Building and Construction Trades Council

of

STANISLAUS, MERCED, TUOLUMNE AND MARIPOSA COUNTIES

P.O. Box 1890 MODESTO, CALIFORNIA 95353-1890

PHONE (209) 527-6105 FAX (209) 527-6104

e-mail:bc-tradescouncil@sbcglobal.net

GREG VINCELET
President

BILLY POWELL
Financial Secretary-Treasurer

July 20, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of The Stanislaus, Merced, Tuolumne & Mariposa Building Trades Council, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

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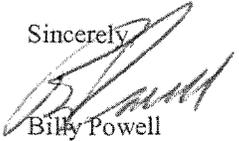
Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water

REC12C76

security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,

A handwritten signature in black ink, appearing to read "Billy Powell", written over the printed name.

Billy Powell
Secretary/Treasurer

REC12CT6

From: Billy Powell <billy@ibewlu684.org>
Sent: Monday, July 20, 2015 4:03 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Support Alternative 4A of California Water Fix
Attachments: Support Alternative 4A of California Water Fix SMTM BCTC.PDF

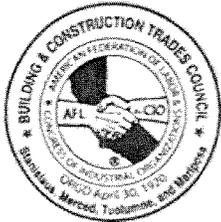
Hello,

Please see attached letter of support for Alternative 4A of California Water Fix.

Thank you,

Billy Powell

Financial Secretary/ Treasurer
209-524-5171



L # 77

- Unused
- Duplicate of 46
- Out of Scope
- Other: _____

(replace original)



IBEW LOCAL 551

INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS

2525 Cleveland Avenue, Suite B
Santa Rosa, California 95403

MARIN, SONOMA, MENDOCINO, LAKE,
HUMBOLDT AND DEL NORTE COUNTIES

Telephone (707) 542-3505
Fax Number (707) 542-9134
ibew551@ibewlocal551.org

July 20, 2015

BDCP/Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of International Brotherhood of Electrical Workers Local Union 551, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

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- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Jack A Buckhorn
Business Manager/IBEW Local 551

REC 126 78

From: Sue Miller <suem@ibewlocal551.org>
Sent: Monday, July 20, 2015 2:52 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Water Fix Comments
Attachments: BDCP Water Fix Comments.pdf

Attached is a letter from IBEW Local Union 551, Santa Rosa, California

Sue Miller
Office Manager
IBEW Local Union 551
Phone: 707-542-3505/Fax: 707-542-9134
email: suem@ibewlocal551.org
website: www.ibewlocal551.org





Sheet Metal, Air, Rail, Transportation Workers Local Union 105

*Luther B. Medina, Business Manager/President
Vernon W. Shaffer, Financial Secretary-Treasurer/Recording Secretary
Rocky Pelliccino, Vice President/Business Representative*

Business Representatives

*Richard Foss, II
Sam F. Hurtado*

Chris Gonzalez
David Shaver*

*Steve Hinson
William "Bill" Shaver*

*Tim Hinson
Joe Whitcher*

July 27, 2015

BDCP/ Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

Via email to BDCPComments@icfi.com

Via Email to Governor Brown at governor@governor.ca.gov

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/ Water Fix Comments:

On behalf of S.M.A.R.T. Local Union 105; we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

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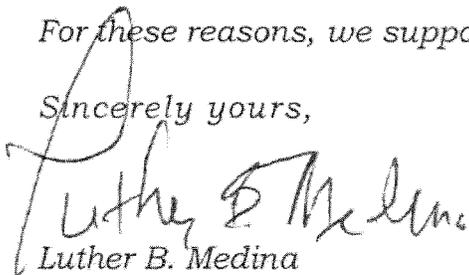
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Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely yours,



Luther B. Medina
President/Business Manager

LBM:lat/ SUPPORT Alternative 4A of California Water Fix 072715
opeiu 537
alf-cio,clc

cc: Governor Jerry Brown (via email at governor@governor.ca.gov)

From: Yoland Basmajian <YBasmajian@local105.org>
Sent: Monday, July 20, 2015 1:47 PM
To: governor@governor.ca.gov
Cc: Luther Medina; Lori Turner; BDCPcomments
Subject: Support Alternative 4A of California Water Fix
Attachments: Support Alternative 4A of California Water Fix 072715.pdf

Dear Governor Brown,

At the request and on behalf of Mr. Luther B. Medina, Business Manager, I have attached the Support letter for Alternative 4A of California Water Fix for your consideration. Should you have any questions, please feel free to contact me at (909) 305-2800 ext. 233.

Best Regards,

Yoland Basmajian

Assistant to Executive Secretary



Sheet Metal, Air, Rail, Transportation Workers Local Union 105

2120 Auto Centre Drive

Glendora, CA 91740

Phone: 909/ 305-2800

Fax: 909/ 305-2822



Please consider the environment before printing this email.

Sonoma – Mendocino – Lake Counties Building & Construction Trades Council

July 20, 2015

BDCP/Water Fix Comments
BDCPComments@icfi.com

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the Sonoma, Mendocino & Lake Counties Building & Construction Trades Council we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

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REC 12/80

- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
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For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,



Jack A. Buckhorn,
Secretary-Treasurer
Sonoma, Mendocino & Lake Counties
Building & Construction Trades Council
2525 Cleveland Avenue, Suite A
Santa Rosa CA 95403

CC: Governor Jerry Brown (governor@governor.ca.gov)

JB:cj OPEIU 3 (129) AFL-CIO

RECIRC80

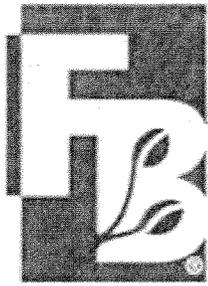
From: Jack Buckhorn <sonomabctc@gmail.com>
Sent: Monday, July 20, 2015 1:44 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Letter of support of the California Water Fix (Alternative 4A)
Attachments: Letter Supporting the California Water Fix - Alternative 4-A.pdf

Please find enclosed the Sonoma, Mendocino & Lake Counties Building & Construction Trades Council's letter supporting the California Water Fix (Alternative 4A)

Cindi Johnson, Office Secretary
on behalf of:

**Jack Buckhorn, Secretary-Treasurer
Sonoma, Mendocino & Lake Counties
Building & Construction Trades Council**

JB: cj OPEIU 3 (129) AFL-CIO



DELTA CAUCUS

CONTRA COSTA - SACRAMENTO - SAN JOAQUIN - SOLANO - YOLO

July 13, 2015

BDCP/California WaterFix Comments
P.O. Box 1919
Sacramento, CA 95812

Sent via: bdcpcomments@icfi.com

RE: Request for comment period extension on Recirculated Draft Environmental Impact Report/Supplement Draft Environmental Impact Statement

Dear Project Team;

As you know, the Recirculated Draft Environmental Impact Report/Supplement Draft Environmental Impact Statement was released for public review and comment on July 10, 2015, for a comment period ending August 31, 2015. The comment period is not long enough to allow interested parties, especially those in agriculture, to comment. Please take into consideration, this is a busy time for all California farmers who are harvesting and the time period does not grant sufficient time to review the document thoroughly. We would also like to point out that the overview of the Alternates 4A, 2D and 5A is over 2,000 pages alone, and that is not the entire document.

We are requesting a **90-day comment period extension** to allow adequate time to review the proposed changes and make comments. Changes in the Recirculated Draft Environmental Impact Report/Supplement Draft Environmental Impact Statement would make a significant impact on California agriculture, and warrants a longer period for review and comments.

Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads 'Russell van Loben Sels'.

Russell van Loben Sels
Chairman

From: lauren@sacfarmbureau.org
Sent: Monday, July 20, 2015 9:28 AM
To: BDCPcomments
Cc: Charlotte
Subject: Request to Extend Comment Period
Attachments: Delta Caucus Request for 90 day comment period letter.pdf

Importance: High

Dear Project Team;

Please see attached letter regarding the open comment period on the partially Recirculated Draft Environmental Impact Report/Supplement Draft Environmental Impact Statement.

Should you have any additional questions, please don't hesitate to reach out.

We appreciate your time and consideration.

Kindly,

Lauren Simonich

Program Coordinator

Sacramento County Farm Bureau

8970 Elk Grove Blvd.

Elk Grove, CA 95624

phone: (916) 685-6958 fax: (916) 685-7125 cell: (916) 712-6731

www.sacfarmbureau.org



July 17, 2015

SENT VIA U.S. MAIL AND EMAIL

The Honorable Sally Jewell
 Secretary of the Interior
 U.S. Department of the Interior
 1849 C Street, NW
 Washington, D.C. 20240
 exsec@ios.doi.gov

David Murillo, Regional Director
 U.S. Bureau of Reclamation
 2800 Cottage Way
 Sacramento, CA 95825
 dmurillo@usbr.gov

John Laird, Secretary
 California Natural Resources Agency
 1416 Ninth Street, Suite 1311
 Sacramento, CA 95814
 Kinberly.goncalves@resources.ca.gov

Mark W. Cowin, Director,
 California Department of Water Resources
 P.O. Box 942836, Room 1115-1
 Sacramento, CA 94236-0001
 Mark.cowin@water.ca.gov

BDCPComments@icfi.com

RE: Request for 75-day Extension of Comment Deadline for BDCP/California
 Water Fix RDEIR/SDEIS Comments to November 16, 2015

Dear Secretary Jewell, Regional Director Murillo, Secretary Laird, Director Cowin and
 Federal and California Agencies, Officers, and Staff Members Carrying out the
 BDCP/California Water Fix:

This letter is being submitted on behalf of the Friends of Stone Lakes National
 Wildlife Refuge ("the Friends", formerly known as the Stone Lakes National Wildlife
 Refuge Association). The Friends is a volunteer, nonprofit organization dedicated to the
 conservation, protection, enhancement and promotion of the Stone Lakes National
 Wildlife Refuge ("Stone Lakes NWR" or "Refuge"). The comments in this letter are solely

those of the Friends and are independent of Stone Lakes NWR staff and the U.S. Fish and Wildlife Service ("USFWS").

Stone Lakes NWR is one of the largest complexes of wetlands, lakes and riparian areas remaining in the Sacramento-San Joaquin Delta and provides critical habitat for waterfowl and other migratory birds of international concern as well as a number of endangered plant and animal species. The Refuge and surrounding foraging acreage is "ground zero" for the impacts of the water conveyance facilities proposed as the "California Water Fix." Because of this fact, the Friends have been actively engaged in the BDCP process since submitting Scoping comments in May of 2008.

Because of the Friends' long-standing interest in the Bay Delta Conservation Plan ("BDCP"), it is extremely concerned about the inordinately short review period for the recently released Partially Recirculated Draft EIR/Supplemental Draft EIS ("RDEIR/SDEIS") for the newly rechristened Bay Delta Conservation Plan/California Water Fix. A 45 day review period is needlessly short and fails to give the Friends, other interested parties, and – not the least – interested individual members of the public adequate time to read, understand, research and comment upon the extraordinary volume of new technical and scientific material.

Accordingly, the Friends hereby respectfully request an extension of at least 75 days for submitting public comments on the BDCP/California Water Fix RDEIR/SDEIS to the BDCP Draft EIR/EIS. This request is to extend the deadline for public comment on those documents from August 31, 2015, to November 16, 2015. This is a request for a 120 day period for public comment in place of the 45 day period currently being provided.

There are a multitude of good practical, legal and policy reasons for the requested extension. The Friends are aware of a similar written request submitted by Friends of the River, Restore the Delta, the California Water Impact Network, the California Sportfishing Protection Alliance, and the Environmental Water Caucus (among others) on July 16, 2015, and rather than repeating all of the justifications and rationale for an extension as articulated by these organizations, the Friends wishes to put on record its concurrence with the statements and analysis as stated therein, and adopts them by reference as part of this letter.

Honorable Sally Jewell, David Murillo, John Laird, Mark Cowie

July 17, 2015

Page 3 of 4

Thank you for your immediate attention to this matter. We request the courtesy of a prompt written response to this request.

Sincerely,



Dale Claypoole
President, Friends of Stone Lakes
National Wildlife Refuge

cc (sent via email)

Maria Rea, Assistant Regional Administrator
National Marine Fisheries Service
maria.rea@noaa.gov

Michael Tucker, Fishery Biologist
National Marine Fisheries Service
Michael.Tucker@noaa.gov

Larry Rabin, Acting, Field Supervisor, S.F. Bay-Delta
U.S. Fish and Wildlife Service
larry_rabin@fws.gov

Lori Rinek
U.S. Fish and Wildlife Service
lori_rinek@fws.gov

Mary Lee Knecht, Program Manager
U.S. Bureau of Reclamation
mknecht@usbr.gov

Patty Idloff
U.S. Bureau of Reclamation
pidlof@usbr.gov

Deanna Harwood
NOAA Office of General Counsel
deanna.harwood@noaa.gov

REC12052

Honorable Sally Jewell, David Murillo, John Laird, Mark Cowin

July 17, 2015

Page 4 of 4

Kaylee Allen

Department of Interior Solicitor's Office

kaylee.allen@sol.doi.gov

Jared Blumenfeld, Regional Administrator

U.S. EPA, Region IX

blumenfeld.jared@epa.gov

Tom Hagler

U.S. EPA General Counsel Office

hagler.tom@epa.gov

Tim Vendlinski, Bay Delta Program Manager, Water Division

U.S. EPA, Region IX

vendlinski.tim@epa.gov

Stephanie Skophammer, Program Manager

U.S. EPA, Region IX

skophammer.stephanie@epa.gov

Erin Foresman, Bay Delta Coordinator

U.S. EPA, Sacramento, CA

Foresman.Erin@epa.gov

Lisa Clay, Assistant District Counsel

U.S. Army Corps of Engineers

Lisa.clay@usace.army.mil

Michael Nepstad

U.S. Army Corps of Engineers

Michael.G.Nepstad@usace.army.mil

Diane Riddle, Environmental Program Manager

State Water Resources Control Board

diane.riddle@waterboards.ca.gov

Bart McDermott, Refuge Manager

U.S. Fish and Wildlife Service

Bart_mcdermott@fws.gov

From: Enos, Cassandra@DWR <Cassandra.Enos@water.ca.gov>
Sent: Friday, July 17, 2015 4:50 PM
To: BDCPcomments
Subject: FW: Request for 75-day Extension of Comment Deadline for BDCP/CA Water Fix RDEIR/SDEIS Comments to November 16, 2015
Attachments: ATT00001.htm; FSL Ltr to Jewell 7.17.15.pdf

From: Mae Empleo <mae@semlawyers.com>
To: "exsec@ios.doi.gov" <exsec@ios.doi.gov>, "dmurillo@usbr.gov" <dmurillo@usbr.gov>, "Kinberly.goncalves@resources.ca.gov" <Kinberly.goncalves@resources.ca.gov>, "Mark.cowin@water.ca.gov" <Mark.cowin@water.ca.gov>
Cc: "claypoole@sbcglobal.net" <claypoole@sbcglobal.net>, "Bart_mcdermott@fws.gov" <Bart_mcdermott@fws.gov>, "rmburness@comcast.net" <rmburness@comcast.net>, "sbgfinley@sbcglobal.net" <sbgfinley@sbcglobal.net>, Osha Meserve <osha@semlawyers.com>, "maria.rea@noaa.gov" <maria.rea@noaa.gov>, "Michael.Tucker@noaa.gov" <Michael.Tucker@noaa.gov>, "larry_rabin@fws.gov" <larry_rabin@fws.gov>, "lori_rinek@fws.gov" <lori_rinek@fws.gov>, "mknecht@usbr.gov" <mknecht@usbr.gov>, "pidlof@usbr.gov" <pidlof@usbr.gov>, "deanna.harwood@noaa.gov" <deanna.harwood@noaa.gov>, "kaylee.allen@sol.doi.gov" <kaylee.allen@sol.doi.gov>, "hagler.tom@epa.gov" <hagler.tom@epa.gov>, "vendlinski.tim@epa.gov" <vendlinski.tim@epa.gov>, "skophammer.stephanie@epa.gov" <skophammer.stephanie@epa.gov>, "Lisa.clay@usace.army.mil" <Lisa.clay@usace.army.mil>, "diane.riddle@waterboards.ca.gov" <diane.riddle@waterboards.ca.gov>, "Michael.G.Nepstad@usace.army.mil" <Michael.G.Nepstad@usace.army.mil>, "blumenfeld.jared@epa.gov" <blumenfeld.jared@epa.gov>, "Foresman.Erin@epa.gov" <Foresman.Erin@epa.gov>
Subject: Request for 75-day Extension of Comment Deadline for BDCP/CA Water Fix RDEIR/SDEIS Comments to November 16, 2015

Dear Secretary Jewell, Regional Director Murillo, Secretary Laird, Director Cowin and Federal and California Agencies, Officers, and Staff Members:

Attached please find the correspondence submitted on behalf of the Friends of Stone Lakes National Wildlife Refuge ("the Friends") requesting an extension of the comment deadline for the BDCP/California Water Fix RDEIR/SDEIS. Please expect a hard copy of the correspondence to arrive by mail. Should you have questions, please do not hesitate to contact Osha Meserve at this office, or Dale Claypool, President of the Friends.

Sincerely,

Mae Ryan Empleo

Legal Assistant

Soluri Meserve, A Law Corporation
1010 F Street, Suite 100
Sacramento, CA 95814

(tel: 916.455.7300 § 3 fax: 916.244.7300 § Emobile: 559.361.5363 § *
email: <<mailto:mae@semlawyers.com>> mae@semlawyers.com
This email and any attachments thereto may contain private, confidential,
and privileged material for the sole use of the intended recipient.

--

Theresa Olson
Conservation and Conveyance Division Chief
Bay-Delta Office
Bureau of Reclamation
Office: (916) 414-2433
Cell (916) 261-4893



July 17, 2015

BDCP/Water Fix Comments
P.O.Box 1919
Sacramento, CA 95812

cc: Governor Jerry Brown

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the Cerritos Regional Chamber of Commerce, we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.



The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we support the California Water Fix (Alternative 4A).

Sincerely,

A handwritten signature in black ink, appearing to read "S. Smith". The signature is stylized and somewhat abstract.

Scott Smith
Executive Director
scott@cerritos.org
562/467-0800

From: Scott Smith <scott@cerritos.org>
Sent: Friday, July 17, 2015 4:15 PM
To: BDCPcomments
Cc: governor@governor.ca.gov
Subject: Support CA Water Fix Alternative 4A
Attachments: Comment Letter Support Alternative 4A Water Fix.pdf

Please see the attached letter.

Scott

Scott Smith
Executive Director
Cerritos Regional Chamber of Commerce
13259 East South Street
Cerritos, CA 90703
Phone: 562.467.0800
Fax: 562.467.0840
scott@cerritos.org
www.cerritos.org



From: Carl Hobkirk <Chobkirk58@gmail.com>
Sent: Friday, July 17, 2015 2:34 PM
To: BDCPcomments
Subject: Support Alternative 4A - the California Water Fix

Carl Hobkirk 90064 07/17/2015

cc: Governor Jerry Brown

Subject: Support Alternative 4A - the California Water Fix

California Department of Water Resources:

I am writing to express my strong support for the California Water Fix (Alternative 4A). It represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

We urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition as quickly as possible.

Our state's aging system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. We must update this aging system to protect water supplies for our state.

The California Water Fix (Alternative 4A) is the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. It reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

The California Water Fix will replace aging dirt levees with a modern, secure water pipeline; upgrade the water distribution system to protect water supplies from earthquakes and natural disasters; and restore more natural river flows to protect fish and wildlife.

Getting to this point has been a long and thorough process. The time to act and move forward is now to protect California's water security.

For these reasons, I support the California Water Fix.

Moreover, this will focus our state on infrastructural improvements that mirror California's great public works of the past which, quite literally, built our state. We must continue to build thoughtfully and optimistically for our future and for the future of coming generations of Californians!

Carl Hobkirk

From: Byron Buck <byronbuckassoc@comcast.net>
Sent: Friday, July 17, 2015 6:41 PM
To: BDCPcomments
Subject: Support Alternative 4A - the California Water Fix

Byron Buck 95605 07/18/2015

cc: Governor Jerry Brown

Subject: Support Alternative 4A - the California Water Fix

California Department of Water Resources:

I am writing to express my unqualified support for the California Water Fix (Alternative 4A). It represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta. It is the only alternative that addresses fundamental problems with California's major water transport system: earthquake risks and reverse flows/entrainment of fish in the Delta.

I urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition as quickly as possible.

Our state's aging system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. We must update this aging system to protect water supplies for our state and to address environmental weaknesses of the existing conveyance system.

The California Water Fix (Alternative 4A) is the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. It reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

The California Water Fix will replace aging dirt levees with a modern, secure water pipeline; upgrade the water distribution system to protect water supplies from earthquakes and natural disasters; and restore more natural river flows to protect fish and wildlife.

Getting to this point has been a long and thorough process. The time to act and move forward is now to protect California's water security.

For these reasons, I support the California Water Fix.

From: Mary's Mail <mhodel32@gmail.com>
Sent: Friday, July 17, 2015 3:28 PM
To: BDCPcomments
Subject: Water Recirculation Plans

We need to stop hurting the delta, wildlife and lands from tunnels and rock towers. They are hurting our way of life and enjoyment. Our bay needs dredging and removal of weeds all caused by this careless act. Our home values are going down and our use of water is scarce.

Mary Hodel
Discovery Bay resident

Sent from my iPad

From: Glenn Jorgensen <glenjrg@gmail.com>
Sent: Friday, July 17, 2015 9:50 PM
To: BDCPcomments
Subject: Support Alternative 4A - the California Water Fix

Glenn Jorgensen 95660 07/18/2015

cc: Governor Jerry Brown

Subject: Support Alternative 4A - the California Water Fix

California Department of Water Resources:

Support the California Water Fix? You must be joking. I don't know who dreamed up this fiasco in the making, but whoever it was should be checked out by a team of doctors, because he/she is obviously deranged.

How can any plan to take more water from Northern California help the Delta? How can any plan to bury two 40' tunnels under or near the Delta help it?

No, sir, you will not get my support. In fact, I will do anything in my power to help any opposition faction to keep this so-called fix from ever happening.

From: Jim Jorgensen <jim.jorgensen@wavecable.com>
Sent: Saturday, July 18, 2015 3:03 PM
To: BDCPcomments
Subject: tunnel project

Dear Sir:

We continue to be concerned about the massive project which will not help us with our water needs in the San Joaquin Valley to irrigate our ranch.

And this tunnel project will take/grab hundreds of acres of productive farm land which has been in family farms for one-two hundred years.

We are concerned that the wildlife, birds, fish, etc. will not be cared for and cause irreparable harm to endangered species in on and around the Sacramento River. This ill conceived project is not worthy of the billions of dollars allocated for its construction.

Please cancel/drop the twin tunnel project

Jim Jorgensen

Jorgensen Ranch

30416 West Jorgensen Road

Gustine, CA 95322

Ph: 209 854 6566

jim.jorgensen@wavecable.com

From: ericlindaj@juno.com
Sent: Sunday, July 19, 2015 10:58 AM
To: ccnletters@bayareanewsgroup.com; BDCP.comments@noaa.gov;
genebeley@gmail.com
Subject: Delta Tunnels

CC Times,

Brown's Delta Tunnels idea is so out of date with what is happening in California today that it is hard to believe that it is still under consideration.

If the tunnels were in existence for the last 5 years, then NO WATER would have been passed through them in the last 4 years as the lack of rain and the saline levels proposed by the BDCP would have prevented any transfer of water. Big SoCal Ag would be doing its best to change those restricting saline levels, but it would kill the Delta and a lot more jobs than any jobs in SoCal Ag.

Desalinization is the answer. Place the plants inland, at areas that are below sea level and the water flow from the ocean will be free. Solar powered for conservation and cost. Won't cost \$50 Billion and guarantees water no matter what the weather is.

Eric Jensen

2224 Cypress Point

Discovery Bay, CA

94505

925-240-0543

From: bill_v@vassarphotography.com
Sent: Sunday, July 19, 2015 4:22 PM
To: BDCPcomments
Subject: tunnel project

Do to my work schedule, it is hard for me to review the agenda on the tunnels, I would appreciate if you would push it back at least 30 days.
thanks for your consideration
Bill

William G Vassar
Vassar Photography
5075 Double Point Way
Discovery Bay, Ca. 94505
925-980-6453
www.vassarphotography.com

From: mat keller <mkel@sonic.net>
Sent: Sunday, July 19, 2015 7:50 AM
To: BDCPcomments
Subject: Tunnels

I am strongly opposed to the tunnel plan. It seems based on the idea that the water from the Sacramento River system should be diverted to Westlands water district and the L. A. Basil based on increased need.

The farmers can adjust to getting less water by crop changes, and there are several ways to both reduce per capita consumption in urban areas and to develop local sources, such as desalination. These options have economic, ecological and political costs, but they are real options. Conversely, the salmon in the Sacramento system are already endangered by the low flows, and there is no more room for flow reduction. People can adjust, the salmon resource cannot.

Mat Keller
Box 636 Occidental Ca.
mkel@sonic.net

From: Chan, Teresa
Sent: Monday, July 20, 2015 2:49 PM
To: BDCPcomments
Cc: Centerwall, Steve
Subject: FW: BDCP questions

Please consider this a comment received during our public comment period and log it in.

Thanks,
Teresa

From: Chandra.Chilmakuri@CH2M.com [mailto:Chandra.Chilmakuri@CH2M.com]
Sent: Monday, July 20, 2015 1:43 PM
To: Centerwall, Steve; Chan, Teresa; Ben@robertson-bryan.com
Cc: Gwendolyn.Buchholz@CH2M.com
Subject: FW: BDCP questions

Steve, Teresa and Ben,

Here is a question from CCWD regarding the EC tables in the REIRS.

Thanks,
Chandra

Chandra Sekhar Chilmakuri Ph.D., P.E.
Water Resources Engineer | Environmental Hydraulics
CH2M | D 1 916 286 0409 | M 1 916 335 3017

From: Deanna Sereno [mailto:dsereno@ccwater.com]
Sent: Monday, July 20, 2015 1:36 PM
To: Chilmakuri, Chandra Sekhar/SAC
Subject: BDCP questions

Hi Chandra –

I have a few questions about the BDCP RDEIR/SDEIS regarding EC ... specifically, Appendix A (the redline of the Dec 2013 DEIR/DEIS) in Appendix 8H Table EC-15A through Table EC-15D. For each table label, there are two tables shown. I'm assuming one is added and one is deleted, but not clear which is which. Also, why do the results change? I did not think that LLT modeling was updated.

Thanks for your help!
~ Deanna

Deanna Sereno
Contra Costa Water District
P.O. Box H2O | Concord, CA 94524
o: (925) 688-8079 | c: (925) 525-5445

INTERNATIONAL ASSOCIATION
OF SHEET METAL,
AIR, RAIL AND
TRANSPORTATION
WORKERS



SHEET METAL WORKERS'
LOCAL UNION No. 104

2610 CROW CANYON RD., STE. 300
SAN RAMON, CALIFORNIA 94583-1547
TEL: (925) 314-8600 • FAX: (925) 831-0231

Rick Werner
PRESIDENT/BUSINESS MANAGER

July 20, 2015

BDCP/Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812
BDCPComments@icfi.com

RE: Support of California Water Fix (Alternative 4A)

Dear Sir or Madam:

This letter is being written on behalf of the International Association of Sheet Metal, Air, Rail and Transportation Workers, Sheet Metal Workers' Local Union No. 104 to state our strong support for the California Water Fix (Alternative 4A). The California Water Fix is a viable plan to fix California's aging water distribution system, as it will provide water to 25 million Californians and 3 million acres of farmland, while also protecting the Delta's natural environment.

The recirculated documents are the end result of almost ten years of extensive expert review, planning, and scientific and environmental analysis by California's foremost water experts, engineers and conservationists, as well as unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

Sheet Metal Workers' Local Union No. 104 is urging the Department of Water Resources and the Administration to bring the California Water Fix to fruition.

California's system of aging dirt levees, aqueducts and pipes which supplies water to two-thirds of the state is antiquated and at risk of collapse, should there be a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment. This is a dire situation.

BDCP/Water Fix Comments

Page 2

July 20, 2015

The California Water Fix will advance our water delivery infrastructure, thus allowing the responsible capturing of water during wet years, which will provide a greater water supply in times of drought. And as above average rains have been predicted in the near future, California must move forward with improved infrastructure to capture the water when it is available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

For the reasons stated above, SMW Local Union No. 104 strongly supports the California Water Fix (Alternative 4A).

Respectfully submitted,



Rick Werner
President/Business Manager

:jm opeiu #3
c: Governor Jerry Brown (via electronic mail)

From: Jennifer C. Martin <JenniferM@smw104.org>
Sent: Tuesday, July 21, 2015 2:19 PM
To: BDCPcomments
Subject: SMW Local Union No. 104 - Support of CA Water Fix - Alternative 4A
Attachments: Support of CA Water Fix - Alternative 4A 072015.pdf

From: Ed Schnee <easchnee@gmail.com>
Sent: Tuesday, July 21, 2015 9:36 PM
To: Mark.cowin@water.ca.gov
Cc: BDCPcomments
Subject: Please Extend the Comment Period for the Twin Tunnels to 180 Days

Mark W. Cowin, Director,
California Department of Water Resources
P.O. Box 942836, Room 1115-1
Sacramento, CA 94236-0001
Mark.cowin@water.ca.gov

Dear Director Cowin,
I am requesting that the comment period for the Twin Tunnels be extended to 180 days for the "new" BDCP.

Kindly Regards,

Edward Schnee

5443 Drakes Ct

Discovery Bay, CA 94505

From: Humphrey, Shay
Sent: Tuesday, July 21, 2015 11:40 AM
To: BDCPcomments
Subject: FW: Executive Summary Question

-----Original Message-----

From: Tim Strohane [mailto:spillwayguy@gmail.com]
Sent: Tuesday, July 21, 2015 11:38 AM
To: info@BayDeltaConservationPlan.com
Cc: Conner Everts
Subject: Executive Summary Question

I've read through the Executive Summary of the recirculated EIR/EIS of the Bay Delta Conservation Plan and find no bibliographic references in the summary, even though citations with dates are employed throughout the document.

Is the reference section in some other document, or was it omitted from the Executive Summary?

Thanks,

Tim Strohane
Environmental Water Caucus

From: John Anderson <captaingort.jra@gmail.com>
Sent: Wednesday, July 22, 2015 9:00 AM
To: BDCPcomments
Subject: Trade the Peripheral Tunnels for the Saltwater Incursion Barrier

My name is John Anderson. I live on the Delta and am a retired Mechanical Engineer / MBA.

My ancestors

arrived here during the Gold Rush.

I've been involved in the Delta since the 1950s. I live in the heart of the Delta, on the river.

I have an idea that I believe merits media exposure and serious review:

The California Delta Fresh Water Assurance Barrier.

This idea is not new. I have found information of similar proposals that go back over 100 years.

However, California was a dramatically different place then. I believe its time has now come.

Imagine California to have a large bucket of sweet, fresh water in the middle of a parched desert. This bucket is surrounded by a crowd of thirsty people, all with straws, all continuously sucking from this bucket as hard as they can. Their lives depend on it. The bucket is periodically replenished, but these events

are unpredictable as to frequency and volume. Sometimes, the bucket can get precariously low and replenishment uncertain.

But here is the sting: The bucket has a huge leak in the bottom and much of the precious water is running out of the hole...lost forever!

The California Delta is the "bucket". The hole in the bottom is the Carquinez Strait.

Much of California's primary supply of precious fresh water is simply running out into the ocean! Vast amounts of fresh water are allowed to flow through the Carquinez Strait into the Bay and thence to sea....lost forever. EVERY DAY....24x7!

Indeed- California now releases precious fresh water from reservoirs just to hold back the salt water from creeping upstream and spoiling the fresh water...and this condition is at its worst in drought years.

Let's plug this huge leak in California's bucket and stop this waste!

California should build a permanent barrier across the Carquinez Strait somewhere between Benicia and Vallejo. This would essentially be a low dam, perhaps 10-15 feet higher than the maximum high tide

level of the Bay. East of the barrier all water would be fresh water; to the west, all salt water.

There would be locks for ship and recreational boat traffic.

There would be extensive and efficient fish ladders to facilitate unfettered fish migration.

The fresh water behind the barrier would be kept at a continuous high tide level all year round, vastly increasing the fresh water reserve held in the Delta Fresh Water Reserve.

The Barrier would eliminate all salt water incursion concerns related to possible levee failure, earthquakes and sea level change.

Thus, there would be no need for any diversion tunnels or canals (aka the Peripheral Tunnels / Canal). Fresh water integrity and supply would be assured at all times.

The Sacramento River and its inflow tributaries would continue to flow unfettered into and **THOUGH the entire Delta, flushing the water and preserving water quality and ecology before being exported by the various export pumps.**

The export pumps at Byron would run at full capacity practically at all times since all the water now lost to the sea would be saved and fully available.

***Optionally,* intake tunnels running from the Byron pumps to the Barrier at Carquinez Strait might be considered in order to more perfectly emulate the original, natural flow of the Delta.**

Vastly improved modern fish screens would be installed to virtually eliminate fish loss at the pumps.

The Bay would experience its own flushing by its vast tidal flows through the Golden Gate. The north bay would be similar to the south bay.

During wet years, spillways at the Barrier would allow any excess runoff water in the Delta Reserve to flow harmlessly into the Bay and out to sea, preventing floods.

Thus, California would create an enormous fresh water inland resource with no precious fresh water lost to the sea, protected from salt water intrusion and disasters.

I believe this would cost no more or perhaps even less than the current Peripheral Tunnel project.

Our Golden State's population is approaching 40 million people. Our contribution to the world's GNP is among the top 10. With more fresh water available, California's GNP would likely rise even higher. Our agricultural products supply much our Nation's needs and beyond.

However- Everything depends on a reliable supply of precious fresh water.

We simply can no longer allow "the hole in the bottom of the Bucket".

To allow such to continue seems simply preposterous.

I have sent this proposal to many officials including Governor Brown. The only acknowledgment I've received to date is from Senator Feinstein and she said that it would be studied.

Sincerely,

John Anderson

Andrus Island, Ca.

From: Janet McCleery <jmccleery@duckpondsoftware.com>
Sent: Tuesday, July 21, 2015 7:03 PM
To: Mark.cowin@water.ca.gov; BDCPcomments
Subject: Request 180 day comment period on new BDCP Plan

I am writing regarding the recent EIR/EIS submitted for review by the California Department of Water Resources for the new California Water Fix plan. This plan and a separate plan called the California EcoRestore are together the new Bay Delta Conservation Plan (BDCP).

As citizens, we have spent years, since 2009, in public meetings, reviews, and discussions concerning the positive and negative aspects of the BDCP. We poured over thousands of pages of the BDCP plan and tried to submit thoughtful comments about the benefits of the habitat restoration projects versus the negative impacts both the tunnel construction and ultimate tunnel operation would have on Delta farms, Delta ecology, our community's economy, and the wonderful recreation now enjoyed throughout the Delta. Many of us would love to see the Delta designated as a National Recreation Area and preserved!

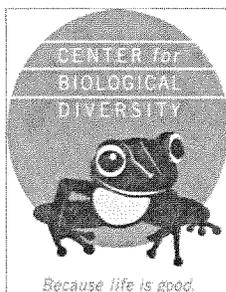
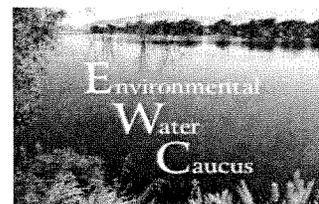
At the end of 2013, there were still significant concerns, especially from citizens in Northern California, about the BDCP. The EPA weighed in and agreed - the plan could not be approved due to the environmental issues regarding building the two tunnels directly through the sensitive Delta estuary.

Now, with the California Water Fix, Alternative 4a represents an abdication of seven years of assurances from the state that the twin tunnels would be a part of a habitat conservation plan that met the "gold standard" of environmental stewardship. All previous review and comment has been predicated on those representations from the state.

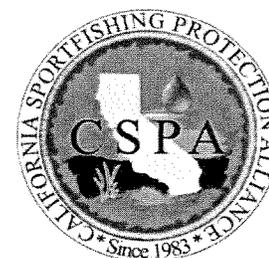
A 45 day comment period is inadequate. Alternative 4a requires at least the same amount of time as was originally scheduled for the HCP version of the BDCP. I respectfully request the comment period be extended to 180 days.

Thank you for your consideration

Jat McCleery
5672 Drakes Drive, Discovery Bay, CA 94505



california
water impact
network



FRIENDS OF THE RIVER
1418 20TH STREET, SUITE 100
SACRAMENTO, CA 95811

July 22, 2015

Via Email and U.S. Mail

The Honorable Sally Jewell
Secretary of the Interior
U.S. Department of the Interior
1849 C Street, NW
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exsec@ios.doi.gov

John Laird, Secretary
California Natural Resources Agency
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Kimberly.goncalves@resources.ca.gov

The Honorable Penny Pritzker
Secretary of Commerce
U.S. Department of Commerce
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The Honorable Gina McCarthy, Administrator
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David Murillo, Regional Director
U.S. Bureau of Reclamation
2800 Cottage Way
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BDCPComments@icfi.com

Re: Request for BDCP Agencies to Issue a New Draft EIR/EIS to Finally Develop and Consider a Reasonable Range of Alternatives Increasing Delta Flows by Reducing Exports/RDEIR/SDEIS Comments

Dear Secretary Jewell, Secretary Pritzker, Administrator McCarthy, Secretary Laird, Director Cowin, Regional Director Murillo, and Federal and California Agencies, Officers, and Staff Members Carrying out and Reviewing the BDCP/California Water Fix:

Summary

Friends of the River (FOR), Restore the Delta, the Center for Biological Diversity, the California Water Impact Network, the California Sportfishing Protection Alliance, and the Environmental Water Caucus (EWC) (a coalition of over 30 nonprofit environmental and community organizations and California Indian Tribes) object to approval of the Bay Delta Conservation Plan (BDCP)/California Water Fix project including the Delta Water Tunnels. We also object to approval of a Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Water Tunnels. The lead agencies for the project are the U.S. Bureau of Reclamation and the California Department of Water Resources (DWR).

Development of alternatives increasing flows through the Delta has always been a direct and obvious first step to complying with California's public trust doctrine protecting Delta water quantity and quality. Instead of complying with the Delta Reform Act, the Endangered Species Act (ESA), the Clean Water Act and applying the public trust doctrine, all of the so-called BDCP alternatives involve new conveyance as opposed to consideration of any through-Delta conveyance alternatives reducing exports.

The alternatives section (Chapter 3) of the Draft EIR/EIS and the ESA-required Alternatives to Take section (Chapter 9) of the BDCP Draft Plan failed to include even one alternative that would increase water flows through the San Francisco Bay-Delta by reducing exports, let alone the National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and ESA required range of reasonable alternatives. Instead, all BDCP alternatives including new Recirculated Draft EIR (RDEIR)/ Supplemental Draft EIS (SDEIS) alternatives 4 modified, 4A, 2D and 5A would do the opposite of increasing flows, by reducing flows through the Delta by way of new upstream diversion of enormous quantities of water for the proposed Water Tunnels. These intentional violations of law require going back to the drawing board to prepare a new Draft EIR/EIS that would include a range of real alternatives, instead of just replicating the same conveyance project dressed up in different outfits. To be clear, 14 of the so-called 15 "alternatives" in the Draft EIR/EIS, 10 of the so-called 11 "take alternatives" in the Draft Plan (Chapter 9) and the 4 "alternatives" in the new RDEIR/SDEIS are all peas out of the same pod. They would create different variants of new upstream conveyance to divert enormous quantities of freshwater away from the lower Sacramento River, sloughs, and San Francisco Bay-Delta for export south.

Our organizations have already communicated several times over the years with BDCP officials about the failure to develop a range of reasonable alternatives in the BDCP process.¹

The direct and obvious way to increase flows through the Delta is to take less water out. The broad policy alternatives that should be highlighted in the BDCP NEPA and CEQA documents are to: 1) reduce existing export levels and thereby increase Delta flows; 2) maintain existing export levels and Delta flows; and 3) further reduce Delta flows by establishing a massive new diversion, the Delta Water Tunnels, upstream from the Delta.² The BDCP agencies and the new RDEIR/SDEIS continue *to ignore* the direct and obvious broad policy alternative of reducing existing export levels to thereby increase Delta flows—which is mandated by section 85021 of the California Water Code.

Reclamation and DWR have ignored our repeated calls over the past several years to develop and consider alternatives increasing freshwater flows through the Delta by reducing exports. They do so to stack the deck making it easier for them to adopt the Water Tunnels alternative because they do not consider any alternatives other than new, upstream conveyance. This deficient BDCP California Water Fix alternatives analysis is not something that can be “fixed” by responses to comments in a Final EIR/EIS. Instead, Reclamation and DWR need to prepare and circulate a new Draft EIR/EIS that will include alternatives increasing Delta flows for consideration by the public and decision-makers.

Deliberate BDCP Refusal to Consider Alternatives Increasing Delta Flows

The BDCP’s omission of alternatives reducing exports to increase flows has been deliberate. A claimed purpose of the BDCP is “Reducing the adverse effects on certain listed [fish] species due to diverting water.” (BDCP Draft EIR/EIS Executive Summary, p. ES-10). “[H]igher water exports” are among the factors the RDEIR/SDEIS admits “have stressed the natural system and led to a decline in ecological productivity.” (RDEIR/SDEIS 1-10). “There is an urgent need to improve the conditions for threatened and endangered fish species within the Delta.” (Draft EIR/EIS ES-10; RDEIR/SDEIS ES-6). The new RDEIR/SDEIS admits that “the Delta is in a state of crisis” and that “Several threatened and endangered fish species . . . have recently experienced the lowest population numbers in their recorded history.” (RDEIR/SDEIS

¹ This letter follows previous comments including our Friends of the River comment letter of May 21, 2014, our joint May 28, 2014 and joint September 4, 2014 comment letters focused on the failure of the BDCP Draft plan and Draft EIR/EIS to identify and evaluate a range of reasonable alternatives that are the declared “heart” of both the NEPA and CEQA required EISs and EIRs. A detailed evaluation of the Draft EIR/EIS’s inadequate alternatives analysis was provided by the EWC in its comment letter of June 11, 2014, accessible online at <http://ewccalifornia.org/reports/bdcpcomments6-11-2014-3.pdf>.

² Though the Delta Water Tunnels alternative is a broad policy alternative, the Tunnels alternative is infeasible in terms of being actually adopted because it is not permissible under the ESA, Clean Water Act, Delta Reform Act and the public trust doctrine. Consequently, Alternative 4, DWR’s original preferred alternative, and new Alternative 4A, Reclamation and DWR’s new preferred alternative, are not actually feasible because they are not lawful. What is puzzling at this Draft EIR/EIS stage of the NEPA and CEQA process is why would the BDCP agencies refuse to consider lawful alternatives increasing Delta flows while both considering and giving preferred alternative status to alternatives that are at least arguably unlawful? As the RDEIR/SDEIS admits, “Many commenters argued that because the proposed project would lead to significant, unavoidable water quality effects, DWR could not obtain various approvals needed for the project to succeed (e.g., approval by the State Water Resources Control Board of new points of diversion for North Delta intakes).” (RDEIR/SDEIS ES-2).

ES-1). Alternatives reducing exports are the obvious direct response to claimed BDCP purposes of “reducing the adverse effects on certain listed [fish] species due to diverting water” and “to improve the conditions for threatened and endangered fish species within the Delta.” The way to increase Delta flows is to take less water out.

Reclamation and DWR must develop and consider an alternative that would increase flows by reducing exports in order to satisfy federal and California law. The Delta Reform Act establishes that “The policy of the State of California is to *reduce reliance on the Delta in meeting California’s future water supply needs* through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency.” Cal. Water Code § 85021 (emphasis added). The Act also mandates that the BDCP include a comprehensive review and analysis of “A reasonable range of flow criteria, rates of diversion, and other operational criteria . . . necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses.” Cal. Water Code § 85320(b)(2)(A). And, the Act requires: “A reasonable range of Delta conveyance alternatives, including through-Delta,” as well as new dual or isolated conveyance alternatives. Cal. Water Code § 85320(b)(2)(B). In addition, the Act mandates that “The long-standing constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta.” Cal. Water Code § 85023.

Reclamation and DWR³ have now marched along for over four years in the face of “red flags flying” deliberately refusing to develop and evaluate a range of reasonable alternatives, or indeed, any real alternatives at all, that would increase flows by reducing exports. Four years ago the National Academy of Sciences declared in reviewing the then-current version of the draft BDCP that: “[c]hoosing the alternative project before evaluating alternative ways to reach a preferred outcome would be post hoc rationalization—in other words, putting the cart before the horse. Scientific reasons for not considering alternative actions are not presented in the plan.” (National Academy of Sciences, Report in Brief at p. 2, May 5, 2011).

More than three years ago, on April 16, 2012, the Co-Facilitators of the EWC transmitted a letter to then-Deputy Secretary of the California Natural Resources Agency Gerald Meral. The letter stated EWC’s concerns with BDCP’s current approach and direction of the [BDCP] project. (Letter, p. 1). Most of the letter dealt with the consideration of alternatives. The penultimate paragraph of the letter specifically states:

The absence of a full range of alternatives, including an alternative which would reduce exports from the Delta. It is understandable that the exporters, who are driving the project, are not interested in this kind of alternative; however, in order to be a truly permissible project, an examination of a full range of alternatives, including ones that would reduce exports, needs to be included and needs to incorporate a public trust balancing of alternatives. (Letter, p. 2).

³ BDCP Applicants include San Luis Delta Mendota Water Authority, Westlands Water District, Kern County Water Agency, Zone 7 Water Agency, Metropolitan Water District of Southern California, and Santa Clara Valley Water District.

The EWC provided its “Reduced Exports Plan” to BDCP agency officers back in December 2012 and again in person on February 20, 2013. EWC Co-Facilitator Nick DiCroce stated in his December 2012 message to Deputy Secretary Meral that:

Now that the project is nearing its EIR/EIS stage, we feel it is important to formally present it [Reduced Exports Plan] to you and request that you get it on the record as an alternative to be evaluated. . . . As you know, CEQA and NEPA both require a full range of reasonable alternatives to be evaluated. (December 15, 2012 email DiCroce to Meral).

On November 18, 2013, FOR submitted a comment letter in the BDCP process urging those carrying out the BDCP to review the “Responsible Exports Plan,” an update of the previous “Reduced Exports Plan” proposed by the EWC:

as an alternative to the preferred tunnel project. This Plan calls for reducing exports from the Delta, implementing stringent conservation measures but no new upstream conveyance. This Plan additionally prioritizes the need for a water availability analysis and protection of public trust resources rather than a mere continuation of the status quo that has led the Delta into these dire circumstances. Only that alternative is consistent with the EPA statements indicating that more outflow is needed to protect aquatic resources and fish populations. The EWC Responsible Exports Plan is feasible and accomplishes project objectives and therefore should be fully analyzed in a Draft EIS/EIR. (FOR November 18, 2013 comment letter at p. 3, Attachment 4 to FOR January 14, 2014 comment letter).

All of the so-called project alternatives set forth in the Draft Plan, Draft EIR/EIS, and new RDEIR/SDEIS create a capacity to divert more water from the Delta far upstream from the present diversion, which will undoubtedly decimate Delta-reliant species already on the brink of extinction, including the Delta smelt, chinook salmon, steelhead, San Joaquin kit fox, and tricolored blackbird, among dozens of others. The Draft EIR/EIS itself describes differences among the alternatives as “slight.” Yet the Water Tunnels would divert enormous quantities of water from the Sacramento River near Clarksburg, California--waters that presently flow through designated critical habitats for the host of imperiled species in the Sacramento River and sloughs to and through the Bay-Delta. Should the Tunnels be completed, these waters would instead be exported through the northern intakes upstream from the Delta. And they would do so contrary to ESA Section 10 (prohibiting reduction of the likelihood of survival and recovery of listed species), ESA Section 7 (prohibiting federal agency actions that are likely to jeopardize the continued existence of any endangered species or that “result in the destruction or adverse modification of [critical] habitat of [listed] species” 16 U.S.C. § 1536 (a)(2)), and California Water Code Section 85021 (requiring that exporters reduce reliance on the Delta for water supply).

BDCP Agencies Must Consider Alternatives That Will Increase Delta Flows As Proposed Under the Responsible Exports Plan

We yet again request development of a range of reasonable alternatives increasing Delta flows and reducing exports. The BDCP agencies must take this opportunity as part of preparing a

new, legally sufficient, Draft EIR/EIS that incorporates actions called for by the Responsible Exports Plan (attached to our previous comment letters and also posted at <http://www.ewccalifornia.org/reports/responsibleexportsplanmay2013.pdf>). These actions include: reducing exports to no more than 3,000,000 acre-feet in all years in keeping with State Water Resources Control Board (SWRCB) Delta flow criteria (for inflow as well as outflow); water efficiency and demand reduction programs including urban and agricultural water conservation, recycling, storm water recapture and reuse; reinforced levees above PL 84-99 standards; installation of improved fish screens at existing Delta pumps; elimination of irrigation water applied on up to 1.3 million acres of drainage-impaired farmlands south of the Bay-Delta; return the Kern Water Bank to State control; restore Article 18 urban preference; restore the original intent of Article 21 surplus water in SWP contracts; conduct feasibility study for Tulare Basin water storage; provide fish passage above and below Central Valley rim dams for species of concern; and retain cold water for fish in reservoirs. We also request that the range of reasonable alternatives include reducing exports both more and less than the 3,000,000 acre feet limit called for by the Responsible Exports Plan.⁴

Responsible Exports Plan Alternatives could vary by how much time is allotted to phase in export reductions over time. For instance, they could range from 10 to 40 years, which would comparatively span the same range of timelines provided for Tunnels construction.

The RDEIR/SDEIS admits the existence of paper water, “quantities totaling several times the average annual unimpaired flows in the Delta watershed could be available to users based on the face value of water permits already issued.” (RDEIR/SDEIS 1-11). The BDCP agencies misuse the Delta Reform Act’s definition of the coequal goals: “‘Coequal goals’ means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem . . .” Cal. Water Code § 85054. Providing “a more reliable water supply” means real water actually available, not paper water, and reflecting water available for export while meeting the needs for Delta water quantity, quality, freshwater flows, fisheries, public trust obligations, the ESA, the Clean Water Act, and senior water rights holders. It does not mean moving the exporters who are junior water rights holders-- including 1.3 million acres of drainage impaired lands-- to the front of the line ahead of everyone and everything else. It also does not mean putting the exporters in the front of the line during a lengthy extreme drought, crashing fish populations, and reductions in water use being made by millions of Californians.

The estimated \$15 billion cost of the Water Tunnels--which in reality will amount to \$30 billion or more including capital cost (and costs normally being greater than when under estimated by self-interested project consultants)--represents an “opportunity cost.” The enormous sums spent on the Water Tunnels would be opportunity lost to making modern water quality and quantity improvements including recycling, conservation, and technical improvements such as drip -irrigation. In other words, the sums spent on outdated concepts – the Water Tunnels--would be lost to effective modern measures actually increasing water availability. The only true benefit cost study prepared on the Water Tunnels concluded that the costs are 2 to 3 times higher than

⁴ We attach for the BDCPComments@icfi.com addressee a pre-publication copy of EWC’s new *A Sustainable Water Plan for California* (May 2015) as an updated EWC alternative to the BDCP California Water Fix Delta Tunnels. The features of the new plan are similar in pertinent part to the previous Responsible Exports Plan recommendations and features set forth above.

the benefits. Dr. Jeffrey Michael, *Benefit-Cost Analysis of Delta Water Conveyance Tunnels* (Eberhardt School of Business, University of the Pacific, July 12, 2012). Now that the project has dropped the features of habitat conservation while keeping only the Water Tunnels the exporters would not have the benefit of 50 year permits and virtually guaranteed water deliveries. That change, in addition to worsening the adverse environmental impacts of the Water Tunnels, also increases the already negative cost benefit ratio. The change also leaves the taxpaying public to be stuck with all costs to mitigate the adverse impacts of the Water Tunnels.

BDCP Agencies Must Meaningfully Present and Evaluate Alternatives that will Increase Delta Flows in order to Comply with NEPA and CEQA

Under NEPA Regulations, "This [alternatives] section is the heart of the environmental impact statement." The alternatives section should "sharply" define the issues and provide a clear basis for choice among options by the decision-maker and the public. 40 C.F.R. § 1502.14. Moreover, if "a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action." § 1502.9(a). The Responsible Exports Plan and variants on it must be among those alternatives in a new Draft EIR/EIS for BDCP that helps to disclose, sharpen and clarify the issues.⁵

Reclamation and DWR have failed to produce an alternatives section that "sharply" defines the issues and provides a clear basis for choice among options as required by the NEPA Regulations, 40 C.F.R. § 1502.14. Again, those issues must include producing more Delta inflow and outflow through the estuary as habitat for listed fish species, and documenting the impacts on Delta ecosystems as called for in Water Code § 85021. The choice presented must include increasing flows by reducing exports, not just reducing flows by increasing the capacity for exports as is called for by *all* of the so-called "alternatives" presented in the BDCP Draft Plan, Draft EIR/EIS, and RDEIR/SDEIS.⁶

⁵ The EIS alternatives section is to "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." § 1502.14(a).

⁶ In *California v. Block*, 690 F.2d 753, 765-769 (9th Cir. 1982), the project at issue involved allocating to wilderness, non-wilderness or future planning, remaining roadless areas in national forests throughout the United States. The court held that the EIS failed to pass muster under NEPA because of failure to consider the alternative of increasing timber production on federally owned lands currently open to development; and also because of failure to allocate to wilderness a share of the subject acreage "at an intermediate percentage between 34% and 100%." 690 F.2d at 766. Like the situation here where the BDCP agencies claim a trade-off involved between water exports and Delta restoration (RDEIR/SDEIS ES 4-6), the Forest Service program involved "a trade-off between wilderness use and development. This trade-off however, cannot be intelligently made without examining whether it can be softened or eliminated by increasing resource extraction and use from already developed areas." 690 F.2d at 767. Here, likewise, trade-offs cannot be intelligently analyzed without examining whether the impacts of alternatives reducing exports can be softened or eliminated by increasing water conservation, recycling, and eventually retiring drainage-impaired agricultural lands in the areas of the exporters from production. *Accord, Oregon Natural Desert Assn. v. Bureau of Land Management*, 625 F.3d 1092, 1122-1124 (9th Cir. 2010) (EIS uncritical alternatives analysis privileging of one form of use over another violated NEPA). Here, the BDCP alternatives analysis has unlawfully privileged water exports over protection of Delta water quality, water quantity, public trust values, and ESA values.

Instead of sharply defining the issues and providing a clear basis for choice among options, the BDCP consultants have now produced 48,000 pages of conclusory Water Tunnels advocacy.

The failure to include a range of reasonable alternatives also violates CEQA. An EIR must “describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” 14 Code Cal. Regs (CEQA Guidelines) § 15126.6(a). “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” § 15126.6(b). Recirculation of a new Draft EIR/EIS will be required by CEQA Guidelines section 15088.5(a)(3) because the Responsible Exports Plan alternative and other alternatives that would reduce rather than increase exports have not been previously analyzed but must be analyzed as part of a range of reasonable alternatives.

With respect to the ESA, we have repeated several times in 2013 and 2014 that the failure of the federal agencies to prepare the ESA required Biological Assessments and Opinions concerning the US Bureau of Reclamation’s activities with the BDCP violates both the ESA Regulations (50 C.F.R. § 402.14(a) “at the earliest possible time” requirement and the NEPA Regulations (40 C.F.R. § 1502.25(a) “concurrently with” and “integrated with” requirements. (FOR January 14, 2014 comment letter and its four attachments). The Biological Assessments and Biological Opinions, still missing (RDEIR/SDEIS 1-15), are essential to any meaningful public review and comment on a project claimed to be responsive to declining fish populations.

As conceded by BDCP Chapter 9, Alternatives to Take, the analysis of take alternatives must explain “why the take alternatives [that would cause no incidental take or result in take levels below those anticipated for the proposed actions] were not adopted.” (BDCP Plan, Chapter 9, pp. 9-1, 9-2). Here, the lead agencies failed to even develop let alone adopt alternatives reducing exports and increasing flows to eliminate or reduce take. Reclamation and DWR have ignored the EWC’s alternative that was handed to them on a silver platter back in December 2012, two and one half years ago.

In short, the fundamental flaws in the alternatives sections in the BDCP Draft EIR/EIS, Chapter 9 of the BDCP plan and the RDEIR/SDEIS have led to NEPA and CEQA documents “so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.” 40 C.F.R. § 1502.9(a).

Expert Federal and California Agencies have also Found the Current BDCP Alternatives Analysis Deficient

There is more. On August 26, 2014, the U.S. Environmental Protection Agency (EPA) issued its 40-page review of the Draft BDCP EIS finding in BDCP’s case that:

operating any of the proposed conveyance facilities . . . would contribute to increased and persistent violations of water quality standards in the Delta, set under the Clean Water Act, measured by electrical conductivity (EC) and chloride concentrations. We recommend that the Supplemental Draft EIS include one or more alternatives that would, instead, facilitate attainment of all water quality standards in the Delta. Specifically, we recommend that an alternative be developed that would, at minimum, not contribute to an increase in the magnitude or frequency of exceedances of water quality objectives, and that would address the need for water availability and greater freshwater flow through the Delta. Such an alternative should result in a decrease in the state and federal water projects' contributions to the exceedance of any water quality objectives in the Delta. (*Id.*, p.2).

EPA further stated that “Data and other information provided in the Draft EIS indicate that all CM1 [Tunnels project] alternatives may contribute to declining populations of Delta smelt, Longfin smelt, green sturgeon, and winter-run, spring-run, fall-run and late-fall run Chinook salmon.” (p. 10). “We recommend that the Supplemental Draft EIS consider measures to insure freshwater flow that can meet the needs of those [declining fish] populations and ecosystem as a whole, and is supported by the best available science. We recommend that this analysis recognize the demonstrated significant correlations between freshwater flow and fish species abundance.” (*Id.*). “Other reasonable alternatives could be developed by incorporating a suite of measures, including Integrated Water Management, water conservation, levee maintenance, and decreased reliance on the Delta.” (*Id.* p. 3). In addition, EPA concluded that “The Draft EIS does not address how changes in the Delta can affect resources in downstream waters, such as San Francisco Bay, and require changes in upstream operations, which may result in indirect environmental impacts that must also be evaluated. We recommend that the Supplemental Draft EIS include an analysis of upstream and downstream impacts.” (*Id.*).

On July 29, 2014, the State Water Resources Control Board (SWRCB) issued its 38 page review of the Draft BDCP EIS/EIR. The SWRCB declared that the “environmental documentation prepared for the project must disclose the significant effects of the proposed project and identify a reasonable range of interim and long-term alternatives that would reduce or avoid the potential significant environmental effects.” (Letter, comment 9 pp. 11-12). Further, “The justification for this limited range of Delta outflow scenarios is not clear given that there is significant information supporting the need for more Delta outflow for the protection of aquatic resources and the substantial uncertainty that other conservation measures will be effective in reducing the need for Delta outflow. For this reason a broader range of Delta outflows should be considered for the preferred project.” (*Id.* comment 10 p. 12).

On July 16, 2014, the U.S. Army Corps of Engineers found that: “the EIS/EIR is not sufficient at this time in meeting the Corps’ needs under the National Environmental Policy Act (NEPA) . . . in particular with regard to the incomplete description of the proposed actions, alternatives analysis . . . and impacts to waters of the United States and navigable waters, as well as the avoidance and minimization of, and compensatory mitigation for, impacts to waters of the United States.” (Letter p. 1). Additional Corps comments include the absence in the EIR/EIS of “an acceptable alternatives analysis” (comment 4), no showing on which alternative may contain the Least Environmentally Damaging Practicable Alternative (LEDPA) for section 404, Clean

Water Act purposes (Comment 5), “the document needs a clear explanation of a reasonable range of alternatives and a comparison of such, including a concise description of the environmental consequences of each” (comment 19), and “new conveyance was not a part of the preferred alternative for CalFed. Does this EIS/EIR describe why the reasons for rejecting new conveyance in CalFed are no longer valid?” (Comment 22).

Finally, Reclamation and DWR had to drop the attempt to deceive the public that the Water Tunnels are part of a habitat conservation plan because of the refusal of U.S Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) scientists to falsely find that the Water Tunnels would not be harmful to endangered species of fish and their habitat. The RDEIR/SDEIS calls this “difficulties in assessing species status and issuing assurances over a 50 year period . . .” (RDEIR/SDEIS 1-2). In fact, the federal scientists have been issuing “red flag” warnings that the Water Tunnels threaten the “potential extirpation of mainstem Sacramento River populations of winter-run and spring-run Chinook salmon over the term of the permit” for more than three years.

Reclamation and DWR in their RDEIR/SDEIS have ignored what the EPA, SWRCB, Army Corps, USFWS and NMFS had to say, just as they have ignored the National Academy of Sciences and the EWC for the past four years.

Conclusion

EWC’s Plan, completely ignored so far by Reclamation and DWR, fits the EPA’s and the SWRCB’s calls for alternatives that would increase freshwater flow through the Delta, as well as the Army Corps’ call for an acceptable alternatives analysis. It is time to include among the range of reasonable alternatives required by law, and presented to the public for comment, increasing freshwater flows through the Delta by reducing exports. This is imperative. Extinction is forever.

Should you have any questions, please contact Conner Everts, Co-Facilitator, Environmental Water Caucus at (310) 394-6162 ext. 111 or Robert Wright, Senior Counsel, Friends of the River at (916) 442-3155 ext. 207 or bwright@friendsoftheriver.org.

Sincerely,

/s/ Conner Everts
Co-Facilitator
Environmental Water Caucus

/s/ E. Robert Wright
Senior Counsel
Friends of the River

/s/ Carolee Krieger
Executive Director
California Water Impact Network

/s/ Bill Jennings
Executive Director
California Sportfishing Protection Alliance

/s/ Barbara Barrigan-Parilla
Executive Director
Restore the Delta

/s/ Chelsea Tu
Staff Attorney
Center for Biological Diversity

Additional Addressees, all via email:

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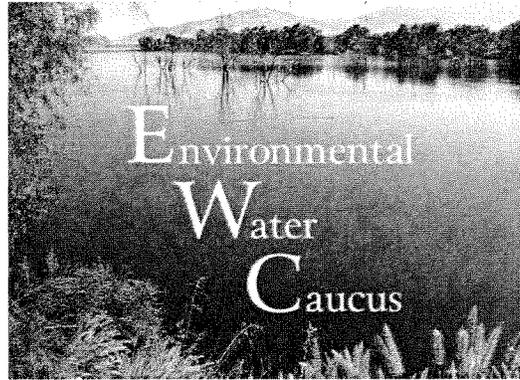
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**A SUSTAINABLE WATER PLAN
FOR CALIFORNIA**

**DEVELOPED BY THE ENVIRONMENTAL WATER CAUCUS
MAY, 2015**

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THE EWC SUSTAINABLE WATER PLAN FOR CALIFORNIA

INTRODUCTION

“The supply of water is the primary resource battleground for the twenty-first century”¹

California’s drought is dire, and has focused legislative and public attention on the enormity of the state’s water problems. As noted in earlier Environmental Water Caucus (EWC) reports, California already was in a state of crisis prior to the current drought. Four years of minimal precipitation have only worsened our situation. Our most pressing problems include: the over allocation of surface water by a factor of at least five, leading to supply unreliability for many users and what is referred to as “paper water;” degraded ecosystems and fisheries; and overexploitation of groundwater supplies. All these issues are exacerbated by ongoing climate change and population growth.

The current drought has caused significant new legislation and rules for the state’s water supplies. These are positive developments, and could lead to new approaches for water use; however, too many of these “solutions” are predicated on the false assumption that current drought conditions are temporary. Thirty percent of recent years can be classified as drought years, and multiple drought years are common. According to DWR, 40 of the last 100 years have been drought or multiple drought years. We must consider our water in new ways. We must acknowledge that California is a drought-prone state, that water is and will be limited, and that every citizen, farmer and commercial enterprise must consume water responsibly, rationally, and in line with available supplies. Unfortunately, many of the plans and actions proposed by our public agencies are based on a fantasy of ever-increasing supply. They demonstrate a bizarre and potentially catastrophic unwillingness to align demand and water contracts with actual supplies and a total disregard for economically disadvantaged communities, fish, and wildlife. Further, state officials are exploiting the current drought to justify a tired and bankrupt ideology that promotes more dams, tunnels, and infrastructure as a solution to water shortfalls. Most egregiously, they avoid any objective analysis of the true costs and benefits of additional surface storage or the proposed “Twin Tunnels” trans-Delta project. The Governor’s *Water Action Plan* and the recently authorized *Water Bond* continue the destructive and ultimately unsustainable momentum toward more surface storage and delivery infrastructure while not creating any new water supplies.

We must recognize that the state’s largest water user – irrigated agriculture – uses 80% of the state’s developed water supply and contributes less than 2% to the states’ economy and payroll, and adjust water practices and priorities accordingly. The continuous planting of permanent crops south of the Delta, where water supply is not reliable and water rights are junior, does not meet the “reasonable use” criteria called for in the California Constitution.

¹ From the *Heart of Dryness* by James G. Workman

Most of the state's plans will not reduce water demand or increase supplies. Rather, they pointedly ignore two practices that *will* augment supplies dramatically: water conservation and recycling. Further, following any brief respite to the drought, there is the omnipresent danger that the state will revert to the "endless supply" mindset that has characterized California water policy for decades.

Since 2009 the Environmental Water Caucus has proposed an approach to our limited water supplies that is efficient, cost-effective and equitable. It will carry us sustainably into the future, and it addresses the deficiencies described above. Unlike our state bureaucracies, we are not simply trying to squeak through the drought; we are advocating for a wholly different management regime. The EWC plan was proposed prior to the current drought, but it addresses the extant crisis and any future period characterized by water shortages. As stressful as it is for ratepayers, farmers and businesses, the current drought enables reform. More to the point, it demands it. Our public officials must recognize this opportunity, and seize it.

The EWC plan puts particular emphasis on actions related to the Sacramento-San Joaquin Delta/San Francisco Bay estuary. The consensus diagnosis for the Delta estuary is dire. The EWC plan prescribes greater river flows and reduced fresh water exports to speed Delta recovery. Further, the plan specifies the ways water supply reliability can be improved while reducing exports from the Bay Delta estuary. Many of our recommendations have been presented to the Delta Stewardship Council as an alternative for the Delta Plan. We have now packaged these recommendations into a single plan for consideration in any future NEPA or CEQA evaluations, or by any action by the State Water Resources Control Board. (These proposals actions are largely based on the EWC report *California Water Solutions Now*, which can be referenced at www.ewccalifornia.org.) EWC's Sustainable Water Supply Plan presents the partner organizations' alternatives to the Bay Delta Conservation Plan (BDCP). (Previous versions of the EWC plan were entitled the *Reduced Exports Plan (RX Plan)* and *The Responsible Exports Plan*. The current version's title has been changed to reflect the statewide applicability of the plan, and has been revised to include information on the recently passed Proposition 1 and recent statewide Groundwater legislation, as well as updates to earlier recommendations and implementation actions.

This plan will accomplish goals central to any rational state water policy. First, it will reduce water exports from the Bay Delta estuary, increasing flows and outflows and creating the extensive brackish "lens" needed to sustain fisheries and wildlife habitat. It will also reduce demand for Delta water, emphasizing more resilient and cost-effective approaches to water supply. It is the only extant plan that will modernize existing facilities in the Bay Delta, including improved fish screens at the South Delta and levees reinforced above the PL84-99 standard; these reinforced levees will increase water supply reliability throughout the Delta. The EWC plan will increase flows through the Delta to improve habitat and fish stocks, avoiding the huge infrastructure costs of the subterranean Twin Tunnels (BDCP). It will also provide increased self-reliance for south-of-Delta water users through inter-regional water transfers and higher priority for south of Delta groundwater storage projects (so long as groundwater storage basins in other parts of the state are not depleted). And it will accomplish the legislated goals of estuary restoration and water reliability for billions of dollars less than currently contemplated plans.

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Our position is based on economically and technologically feasible measures that are readily available to satisfy all future water needs. Our program includes providing clean drinking water and water to restore the environmental health of our once-magnificent rivers, recovering our fisheries from the edge of extinction, fostering healthy commercial and recreational fisheries, maintaining our essential recreation and tourism^{2 3} industries, and supporting a thriving agricultural sector. We will thus ensure that all stakeholders have access to sufficient, safe and affordable water.

A major influencing factor in California's water solutions is the impact of global climate change. Based on current research, the natural limits of our water supply and the economic deficiencies of our current water policy will become increasingly obvious; our ability to provide sustainable water solutions for all Californians will become more challenging. Unless we manage our water more efficiently and account for the current and future effects of global climate change, the availability and costs of providing reliable water to all users will overwhelm our ability to provide it.

In addition to the commonly accepted NEPA and CEQA requirements for any Delta Estuary plan, there are other fundamental criteria for recovering the health of the Bay Delta estuary and its fish that any plan must meet. These include:

1. A statewide water availability analysis to align water needs with availability.
2. A statewide benefit/cost analysis to determine the economic desirability of any plan or major project, considering environmental benefits and costs.
3. A policy to ensure that water exports are consistent with full implementation of the public trust and Clean Water Act, as well as protection of sociological values
4. The enforcement of existing water quality regulations to speed recovery of the Estuary.
5. Satisfying the NCCP *recovery* standard for fish species.

All current and past plans for the Bay/Delta estuary have failed in large part because the above criteria were not applied to plan projects by the responsible state and federal authorities.

² California's Rivers A Public Trust Report. Prepared for the State Lands Commission. 1993. P. 47. http://www.slc.ca.gov/Reports/CA_Rivers_Rpt.html

³ California Travel and Tourism Commission. California Travel Impacts by County. 2008 Preliminary State Estimates. Total direct travel spending alone was \$96.7 billion in 2008. ES-2. <http://tourism.visitcalifornia.com/media/uploads/files/editor/Research/CAImp08pfinal.pdf>.

VISION

Once again, California is challenged by serious water shortages where water is most needed. It is time to stop being surprised by this. California climate not only naturally cycles with drier and wetter periods, but climate change will most certainly exacerbate the challenges that already vex us, through disappearing snow packs, longer droughts, more severe floods, and similar changes.

We developed our modern water infrastructure based on overly-optimistic assumptions about our water supplies at the time and on insupportably hopeful projections about the ability of this infrastructure to meet our future desires. Further, we adopted water allocation laws and practices that have reinforced inequitable diversions, which prevent water from reaching its highest needs.

At the beginning of the 20th century, excessive claims to water “rights” and escalating inequities in water use prompted Californians to embrace significant legal changes in water management. In 1913 the Legislature created the first regulatory system to administer new surface water rights, through the Water Commission Act. Fifteen years later, the electorate amended California’s Constitution in large part due to a state Supreme Court holding that prioritized uses by one set of rights holders regardless of the reasonableness of their use (*Herminghaus v. Southern Calif. Edison*, 200 Cal. 81 (1926).) This landmark California Constitution amendment required that all water use in California be “reasonable” and “beneficial.”

Once again we face inequitable and unwise water management and use practices, requiring similarly significant changes in how we view and manage water in the state. For example, the public understandably wonders why “senior” users have priority over “junior” users regardless of the relative societal benefits of their uses, and why groundwater is essentially unregulated. Green lawns and alfalfa grown in desert climates, a lack of clean drinking water in many California communities, and collapsing (both metaphorically and physically) groundwater tables raise questions about the state’s commitment to wise water use in the face of escalating shortages. Mounting extinction threats, particularly to the iconic California salmon, trigger a growing lack of confidence over the state’s ability and intent to protect the most vulnerable among us.

It is time for us to come back once again to first principles. We must call up a shared sense of wisdom, equity and gratitude in re-envisioning how we will manage our use of the waters of the state. Wisdom means that we must recognize the climate we live in now, accept the current limits of waterways (including in light of their own needs), and respect the likely future scenario of additional water limits in the face of climate change. Equity means that survival needs must be met first – both human survival, as reflected in AB 685 (the Human Right to Water Act) and the survival of California waterways, fish and other aquatic species. Finally, we must integrate gratitude into our decision making – gratitude for the advances we make in sharing water wisely and equitably for our needs, and most importantly gratitude for the gifts that California’s natural world continues to bestow on us. This Report attempts to reflect a vision of “policy driven by wisdom, equity and gratitude,” and calls on water decision makers to do the same.

Our Vision includes the following:

- California must respect and adjust to meet the natural limits of its waters and waterways, including the limits imposed by climate change.
- California must overhaul its existing piecemeal water rights policies, which already over-allocate existing water and distribute rights without regard to equity.
- California's ecosystems and the life they support have a right to clean water and to exist and thrive for their own benefit and the benefit of future generations.

OVERARCHING ISSUES

Several overarching issues characterize all efforts to develop sustainable, effective, and equitable water policies. They include periodic drought, climate change, environmental justice, the preservation of Native American cultural traditions, the precautionary principle, and population pressures. They are covered in this preface to avoid repetition in each of the individual actions described below.

Periodic Drought

Drought is a consistent and recurrent part of California's climate. Multiple-year droughts have occurred three times during the last four decades⁴, and California currently is in the dealing with one of these events. California's long history of multiple-year droughts should force state and local water and land use authorities to recognize the recurrence of drought periods and permanently put more effective water use policies in place. We cannot solve the problems of ongoing drought by continuously modifying water quality standards and water export quantities in ways that favor Delta exporters at the expense of urban ratepayers, the environment and fisheries. The Governor's current policy on water conservation⁵ should be mandatory for all water districts (including agriculture); it should become a permanent part of water policy, rather than a response to current dry conditions. We can negotiate future droughts satisfactorily only by educating the public, recognizing limits, and learning to efficiently use the water we have.

Climate Change

Climate models indicate that climate change already is affecting our ability to meet the goals enumerated in this report. This data *must* be integrated into the implementation of our recommendations. The main considerations are:

- More precipitation will fall as rain rather than snow, resulting in earlier runoff than in the past.⁶
- Less snow will mean that the current springtime melt and runoff will be reduced in volume.
- Overall, average precipitation and river flow are expected to decrease. A recent paper in *Frontiers in Ecology and the Environment*⁷ predicts that the average Sacramento River flow will decrease by about 20 percent by mid-century.
- Precipitation patterns are expected to become more erratic, resulting in both prolonged periods of drought and greater flood risk.
- Sea level rise will affect flows and operations within the Delta, endanger fragile Delta levees, and increase the salinity of Suisun Bay and Delta surface waters, and increase the

⁴ California Drought Update. May 29, 2009. P.5. http://www.water.ca.gov/drought/docs/drought_update.pdf.

⁵ 20x2020 Water Conservation Plan DRAFT, April 30, 2009. Executive Summary.

http://www.swrcb.ca.gov/water_issues/hot_topics/20x2020/index.shtml.

⁶ National Wildlife Federation and the Planning and Conservation League Foundation. On the Edge: Protecting California's Fish and Waterfowl from Global Warming. 10-11. www.pcl.org/projects/globalwarming.html.

⁷ Margaret A Palmer, Catherine A Reidy Liermann, Christer Nilsson, Martina Flörke, Joseph Alcamo, P Sam Lake, Nick Bond (2008) Climate change and the world's river basins: anticipating management options. *Frontiers in Ecology and the Environment*: Vol. 6, No. 2, pp. 81-89.

salinity concentrations of some coastal groundwater aquifers.

These changing conditions could affect all aspects of water resource management, including design and operational assumptions about resource supplies, system demands, performance requirements, and operational constraints. To address these challenges, we must enhance the resiliency of natural systems and improve the reliability and flexibility of water management systems. Specific recommendations are proposed as part of this document.

Environmental Justice

It is imperative that water policies and practices do not compound existing inequities or create new difficulties for economically disadvantaged Californians and communities of color. Further, our water policies and practices must anticipate any potential adverse effect and provide equitable benefits to these communities. An example of situation needing immediate rectification: Water moving south through the California Aqueduct and the Delta Mendota Canal flow past small valley towns that lack adequate or healthy water supplies.

We know that climate change and drought will create catastrophic environmental change in California. Environmental justice requires that water policies and practices addressing climate change and drought provide special accommodations for vulnerable, underserved and disadvantaged communities. .

Other environmental justice water issues include:

- Universal access to safe, affordable water sufficient for basic human needs.
- Access to sufficient wastewater infrastructure that protects water quality and prevents overflows and other public health threats.
- Restoration of water quality so that members of underserved communities can safely use the fish they catch in local waters to supplement their families' diets.
- Equitable access to waterways for recreation.
- Providing statewide access to underserved communities to ensure they benefit from improved conservation, water recycling and other water innovations that improve efficiency and water quality.
- Mitigation of negative impacts from the inevitable reallocation of a portion of the water currently used in agriculture – the state's biggest water use sector – to cities and the environment. Reallocation will reduce irrigated acreage, the number of farm-related jobs, and local tax revenues.
- Mitigation of third party impacts-- including impacts to farm workers-- associated with land conversion.
- A comprehensive mitigation plan to help local rural economies transition to new industries such as solar farms and other clean energy enterprises; this will include new policies and job training to enable underserved community members to make the necessary transition to these new economic models.
- Protection from the impacts of floods and levee breaks, including provisions for emergency and long-term assistance to renters displaced by floodwaters.

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Native American Traditions

Many of California's tribes have a deep and intrinsic relationship with California's rivers, lakes, streams and springs. This relationship goes to the very core of their culture and their spiritual beliefs. Many of the tribes consider the fish that reside in these waters as gifts from their creator, necessary for the continued survival of their people. California's water policy has failed to recognize the importance of the needs of its historic tribes, seeking to manage water only for the economic gain of its largest agricultural contractors. California water policies and practices must change to provide sufficient water to support fisheries and their habitats for both cultural and economic sustainability, and provide for the restoration of those fisheries essential for its native peoples.

The Precautionary Principle

The Precautionary Principle states: "Where there is scientific evidence that serious harm might result from a proposed action but there is no certainty that it will, the precautionary principle requires that in such situations action be taken to avoid or mitigate the potential harm, even *before* there is scientific proof that it will occur."⁸

Numerous actions recommended in this report fit that criteria; the precautionary principle is therefore implicit throughout the report's recommendations.

Population Pressures

California's human population is expected to increase from the current figure of more than 37 million to 44 million by 2030, and 49 million by 2050.⁹ In 2008, 75 percent of the population growth came from natural growth (births), and 25 percent came from immigration, both foreign and interstate. In each of the data sources utilized in this EWC report, population increases have been factored into the conclusions, unless otherwise noted.

⁸ A. I. Schafer, S. Beder. Role of the precautionary principle in water recycling. University of Wollongong. 2006. 1.1.

⁹ California Department of Finance, Demographic Research Unit. 2014. <http://www.dof.ca.gov/research/demographic/reports/#projections>.

SUMMARY OF RECOMMENDATIONS

Below is a sampling of key recommendations contained in this plan:

- Establish a statewide oversight unit within the State Water Resources Control Board responsible for developing the permanent supply enhancements and demand reduction levels called for in this report.
- Require mandatory water rationing by all three water sectors identified in this plan.
- Establish a California water efficiency education and publicity program, similar to health and safety programs that are sponsored by the state.
- Facilitate the movement away from high water-demand permanent crops in accordance with the “waste and unreasonable” use of water doctrine established in California state law.
- Reduce Delta exports to no more than 3 million acre feet of water in all years.
- Implement the EWC Sustainable Water Plan as an alternative to the BDCP twin tunnels.
- Require the State Water Board to enforce the Delta Reform Act’s reduced Delta reliance mandate with the resulting reduced Delta exports.
- Reduce the implementation dates for achievement of groundwater sustainability in priority basins.
- Direct Proposition 1 funding to groundwater options and oppose funding for major surface storage options.
- Eliminate providing CVP irrigation water to impaired farmlands on the west side of the San Joaquin Valley and the Tulare Basin.
- Keep water transfers within the revised (above) delta export limits.
- Reverse the harmful changes that were made as a part of the Monterey Amendments.
- Ensure healthy headwaters and meadowlands to reduce fire risks and enhance water supply.

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The actions specified in the EWC Plan are underlined and described below:

EXPAND STATEWIDE WATER EFFICIENCY AND DEMAND REDUCTION PROGRAMS BEYOND THE CURRENT 20/20 PROGRAM.

California has developed vast water supplies for our cities and farms. In a typical year, agriculture uses 34 million acre-feet of water, urban users consume 7.1 million acre-feet and commercial, institutional and industrial users consume 1.7 million acre-feet. This translates into 79% of the developed water supply for agriculture, 17% for urban use and 4% for commercial, institutional and industrial uses.¹⁰ (An acre-foot of water is the volume of water required to cover one acre of surface area to a depth of one foot, or 325,900 gallons; an acre foot of water is the annual amount typically used by two California households.) To move water around, California has built 1,400 major reservoirs with a combined storage capacity of 40 million acre-feet, thousands of miles of canals, and a multitude of enormous energy-intensive pumps.

Despite all this abundance, fears of monumental water shortages are growing. These are justified, as witnessed by current drought conditions and the obvious impacts of climate change. One-third of the water years in California since 1906 are considered “dry or critical” by the California Department of Water Resources; since 1960, dry or critical years have occurred 37 percent of the time. Reliable our warming climate.” The worst and longest modern droughts have occurred since 1976. Farmers are concerned that they will be driven out of business for lack of water. In response, politicians want to build more dams and canals to store and move more water at a time when climate change will most likely make less water available. More than 90 percent of our rivers already have been diverted; meanwhile, the lavish public subsidizing of agricultural water has created an insatiable demand for ever greater supplies – supplies which cannot be provided under any possible scenario. Indeed, irrigating water-intensive crops on drainage-impaired lands with massive amounts of water *does not* fit a 21st century definition of the “beneficial and reasonable use” criteria called for in state law.

Recommendations made by the Environmental Water Caucus to the Delta Stewardship Council included an aggressive urban water conservation and efficiency program – more aggressive and of *longer duration* than the 20/20 program. These recommendations identified both urban and agricultural users as necessary components for reducing reliance on the Delta and achieving the water supply reliability goals for south-of-Delta users. A more aggressive conservation program also supports the goal of the reduced exports level of this EWC alternative. We intend to continue our advocacy for this program with regional, state, and federal agencies.

Overwhelming evidence shows that a suite of aggressive conservation and water efficiency actions will reduce overall demand and provide reliable and cost-effective increases in available water supplies. These measures will satisfy California’s water needs well into the future

¹⁰ Department of Water Resources. California Water Plan, Update 2013. Pages 2-7 and 3-10.

¹¹ California Data Exchange Center “WSIHIST,” Department of Water Resources. <http://cdec.water.ca.gov/cgi-progs/ioidir/wsihist>

and at far less financial and environmental cost than the construction of additional storage dams, reservoirs, canals, and tunnels. This conclusion is reinforced by the current State Water Plan (Bulletin 160-13), by the Bay Institute's "Collateral Damage" report, by the Pacific Institute, and by actual experience in urban areas and farms.

Southern California, with its huge urban population, can provide the major urban conservation impetus for water savings and demand reduction, as highlighted by the report released by the Los Angeles Economic Development Corporation, *Where Will We Get the Water?*¹² This study shows a combined potential savings and demand reduction of approximately 1.7 million acre feet. These savings can be achieved through three main measures: urban conservation, recycling, and storm water capture. The potential recycling savings are larger with more investment in recycling facilities and regulations related to outdoor urban usage.

These urban statewide water efficiency and water use reduction actions are:

- **Urban Water Conservation**

This includes the installation of low-flow toilets and showerheads, high-efficiency clothes washers, retrofit-on-resale programs, rainwater harvest, weather-based irrigation controllers, water reduction for landscaping via drip and xeriscape, more efficient commercial and industrial cooling equipment, and tiered price structures.¹³ According to the current State Water Plan, total urban water demand can be reduced by as much as 3.1 million acre-feet with these measures.¹⁴ The Los Angeles Economic Development Corporation report found that in Los Angeles, Orange, San Bernardino, San Diego, Riverside and Ventura counties, "urban water conservation could have an impact equivalent to adding more than 1 million acre-feet of water to the regional supply" (about 25 percent of current annual use). At \$210 per acre-foot, the LAEDC report shows that urban conservation is by far the most economical approach available especially compared to new surface storage at \$760 to \$1,400 per acre-foot.

- **Urban Conservation Rate Structures**

Great savings can be achieved by establishing mandatory rate structures within the Urban Best Management Practices that strongly penalize excessive use and reward low water usage customers with lower rates (with the lowest being a lifeline rate to provide water for low income and low-water-using ratepayers). The savings that result from such pricing policies are included in the 3.1 million acre-feet demand reduction cited above.

- **Recycled Water**

¹² Los Angeles County Economic Development Corporation (LAEDC). 2008. *Where Will We Get the Water? Assessing Southern California's Future Water Strategies*. P 6. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

¹³ A detailed treatment of urban water conservation is contained in *Waste Not, Want Not: The Potential for Urban Water Conservation in California*, by the Pacific Institute. http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf.

¹⁴ California Department of Water Resources. *California Water Plan Update 2013, V-3 Resource Management Strategies*, Page 1-9. <http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/Vol3-full2.pdf>

We must treat and reuse urban wastewater, gray water, and storm water, achieving the State Water Resources Board goal of increasing water recycling by at least an additional 2 million acre-feet per year by 2030. The 2013 State Water Plan indicates a figure of 2.3 million acre-feet that could be recovered. The LAEDC report shows recycled water costs \$1,000 per acre-foot.

- Groundwater Treatment, Demineralization and Desalination

This incorporates treatment of contaminated groundwater and groundwater desalination. The cost of groundwater desalination ranges from \$750 to \$1,200 per acre-foot.

- Storm Water Recapture and Reuse

The 2008 Scoping Plan for California's Global Warming Solutions Act of 2006 promotes storm water collection and reuse. The plan finds that up to 333,000 acre-feet of storm water could be captured annually for reuse in urban southern California alone.¹⁵ The LAEDC report also found the potential for "hundreds of thousands of acre-feet" of water from storm water capture and reuse in southern California counties.¹⁶ The Los Angeles and San Gabriel Watershed Council has estimated that if 80 percent of the rainfall that falls on just a quarter of the urban area within the watershed (15 percent of the total watershed) were captured and reused, total runoff would be reduced by about 30 percent. That translates into a new supply of 132,000 acre-feet of water per year, or enough water to supply 800,000 people.

- Agricultural Water Conservation

Reform of agricultural irrigation practices will result in huge water savings. Necessary measures include the continuing trend of drip, micro sprinklers and similar higher technology irrigation, reduced deficit irrigation, transition to less water-intensive crops, ongoing farmland acreage reduction, elimination of the irrigation of polluted farmland, and tiered price structures. Related conservation measures include the elimination of water subsidies provided to agriculture for Central Valley Project (CVP) water, which will drive some of the efficiencies shown in Figure 1. Demand reduction of as much as 5 million acre-feet per year could be achieved by 2030, according to Pacific Institute's *California Water 2030: An Efficient Future* report.¹⁷

A representative list of agricultural water efficiency techniques¹⁸ would include:

- Improved irrigation scheduling
- Improved irrigation technology (e.g., sprinkler and drip irrigation systems)

¹⁵ Climate Change Scoping Plan Appendices Volume I. December 2008. Pursuant to AB 32 The California Global Warming Solutions Act of 2006. C-135. http://www.arb.ca.gov/cc/scopingplan/document/appendices_volume1.pdf.

¹⁶ Los Angeles County Economic Development Corporation (LAEDC). 2008. Where Will We Get the Water? Assessing Southern California's Future Water Strategies. P 32-33. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

¹⁷ Pacific Institute. California Water 2030: An Efficient Future. September 2005. http://www.pacinst.org/reports/california_water_2030/ca_water_2030.pdf

¹⁸ Peter H. Gleick, et al. The World's Water. 2014. <http://islandpress.org/worlds-water-volume-8>. Table 3.9

- Lining canals and employing other seepage control options
- Recycling tailwater on-site
- Increasing pump efficiency
- Constructing spill reservoirs and conducting district reoperation to reduce waste water
- Utilizing mulching and other techniques to increase soil water-holding capacity
- Capturing stormwater flows for later use (e.g., on-farm ponds for frost and heat control and irrigation)

Agricultural water quality improvement techniques that can contribute to water efficiency or conservation include:

- Planting cover crops
- Constructing fencing around water bodies and streams
- Utilizing conservation tillage or no-till
- Restoring riparian zones or constructing buffer zones
- Improving irrigation scheduling and using technology that reduces runoff

In addition to the practices listed above in *The World's Water*, the following features should also be part of the agricultural water efficiency portfolio:

- Targets should be established for water use as a part of the Efficient Water Management Practices (EWMP's). This was not included as a part of the 2009 Delta Reform Act, but should now be added to the mix.
- Districts that fail to use the defined critical EWMP's,¹⁹ including the above mentioned targets, should be declared in violation of the "waste and unreasonable" use of water and penalized accordingly by the SWRCB.
- The volume of water delivered to customers must comply with the California Water Code Section 531.10 and the EWMP's requirements.
- A tiered pricing structure or other incentives based on the quantity of water delivered should be implemented; this would promote more efficient water use at the farm level.
- The use of recycled water should be promoted so long as it meets all health and safety criteria and does not harm crops or soils.

In summary: Since agriculture accounts for such a large percentage of developed water usage, the importance of agricultural water conservation and water use efficiency cannot be stressed enough. The efficiencies achieved by agriculture are magnified due to the high water usage rates and are equally as important, if not more so, than the rules governing urban water usage.

Based on data from the most recent State Water Plans (Bulletins 160-05, Bulletin 160-09, and Bulletin 160-2013),²⁰ the Planning and Conservation League (PCL)²¹ and the Pacific

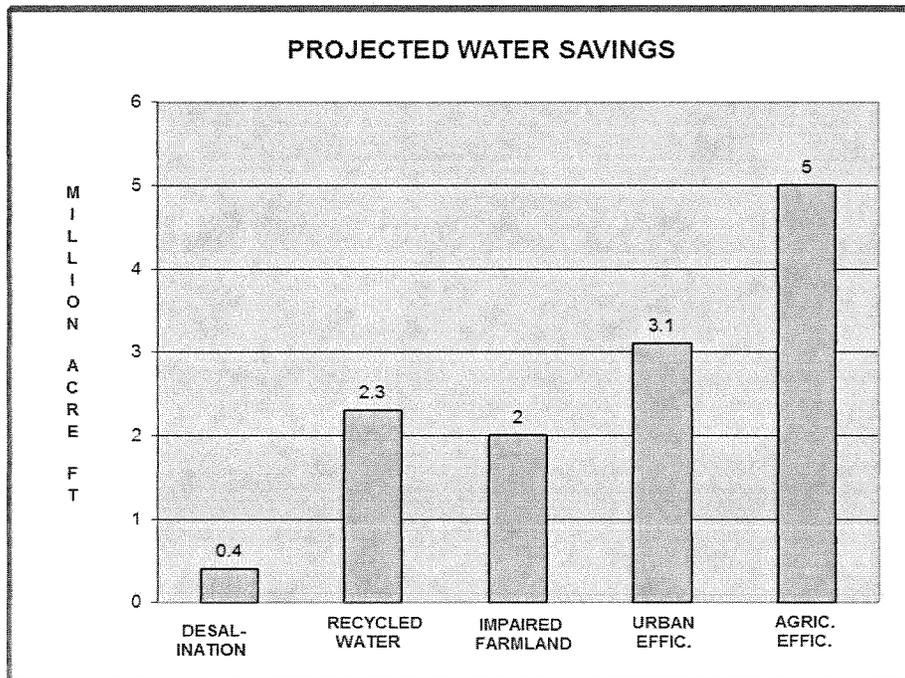
¹⁹ California Department of Water Resources, California Water Plan Update 2013, V-3 Resources Management Strategies, Page 2-9

²⁰ California Department of Water Resources. California Water Plan Update 2013, V-3 Resource Management Strategies, Page 1-9.
<http://www.waterplan.water.ca.gov/docs/cwpu2013/Final/Vol3-full2.pdf>

Institute,²² the savings that can be achieved from these efficiency scenarios are estimated at almost 13 million acre-feet per year (Figure 1). Perhaps the most authoritative report on the subject, the Pacific Institute's *California Water 2030: An Efficient Future*, shows that overall statewide water usage can be reduced by 20 percent below 2000 levels, assuming the implementation of aggressive efforts to conserve and reduce usage with readily available technology and no decrease in economic activity. The urban water savings of approximately 5 million acre-feet a year (including recycled municipal water and urban efficiencies) shown in Figure 1 is enough water to support a population growth of almost 30,000,000 people. According to the California Department of Finance (previously footnoted), the state's population can be expected to increase by 12 million over the next 35 years if current population trends hold. Clearly, a well-managed future water supply to take us to 2050 is within reach with current supplies and with an aggressive water conservation programs.

A recent report published by a coalition of environmental organizations, *Wetter or Not*,²³ confirms the 13 million AF savings and demand reduction potential cited above.

FIGURE 1



In order to translate these efficiency measures into actual demand reductions, we need heightened public awareness of these targets and focused oversight and coordination of local and

²¹ Planning and Conservation League. 2004. Investment Strategy for California Water. P. 8-11. <http://www.pcl.org/projects/investmentstrategy.html>

²² Pacific Institute. 2005. California Water 2030: An Efficient Future. ES-2. http://www.pacinst.org/reports/california_water_2030/ca_water_2030.pdf

²³ National Resources Defense Council, et al. *Wetter or Not*. November 2014. http://docs.nrdc.org/water/wat_14111701.asp

statewide actions. Existing success stories from urban communities and on-farm operations reinforce the savings potentials and the need for efficiency-driven policies; they are described in detail in the references cited in this report. The Governor's current mandate for a 20 percent reduction in per capita urban water use by 2020 is the kind of action that will help this effort, although it may prove insufficient in view of projected population growth. Under the Governor's plan, per capita urban use would be reduced from the current 192 gallons per capita daily to 154 gallons, resulting in an annual savings of 1.74 million acre-feet. The projected water savings shown in Figure 1 are more aggressive than the Governor's plan. A similar mandate should be extended to agriculture, since agriculture uses more than three quarters of the state's developed water supplies. Water savings through efficiency measures can result in direct reductions in the volume of Delta exports because most of the savings would occur in cities and farms south of the Delta. These water savings are necessary to reduce the exports and to restore the stream flows called for in this plan.

The Natural Resources Defense Council's report *Transforming Water Use: A California Water Efficiency Agenda for the 21st Century*, cites the state's successes in energy efficiency as a model for water efficiency, while also noting that the state lags far behind in water efficiency policies, programs, and funding. A key component of the success in energy efficiency has been the development of a priority system called a Loading Order.²⁴ As applied to water policy, a Loading Order system would require demand reductions through improved water efficiency as the first priority in addressing water supply. The second priority would be developing alternative sources including water recycling, groundwater clean-up and storm water capture. The third priority would be the use of more traditional supply options. A Loading Order approach, if applied to statewide, regional, and local water plans, would shift the emphasis to the more efficient and cost effective approaches advocated in this report. Reducing water use through conservation efficiencies or water recycling also has a positive impact on energy use, as pointed out by *Energy Down the Drain*, a report produced by the Pacific Institute and the Natural Resources Defense Council. The report makes a strong case for the link between water and energy efficiencies. All these conservation and efficiency methods are known to produce available water at significantly less cost than constructing new storage dams, reservoirs, and conveyance projects such as those promoted by the BDCP. According to the Los Angeles County Economic Development Corporation (LAEDC) report,²⁵ water produced from the proposed Sites and Temperance Flat Reservoirs would cost \$760 to \$1,400 per acre-foot, while conserved or recycled water typically costs between \$210 and \$1,000 per acre-foot.

New surface storage is by far the highest cost alternative per acre-foot of water for all the alternatives covered by the Legislative Analyst's Office (LAO) report *California Water: An LAO Primer*,²⁶ while providing less total annual yield than most alternatives. Statewide, the costs of all of these efficiency measures are unlikely to exceed the \$68 billion estimated price tag for the

²⁴ Pacific Institute and Natural Resources Defense Council. 2007. *Transforming Water Use: A California Water Efficiency Agenda for the 21st Century*. P. 2. www.deltavision.ca.gov/BlueRibbonTaskForce/Feb28_29/Handouts/BRTF_Item_5A_HO2.pdf.

²⁵ Los Angeles County Economic Development Corporation (LAEDC). 2008. *Where Will We Get the Water? Assessing Southern California's Future Water Strategies*. P 32-33. http://www.laedc.org/consulting/projects/2008_SoCalWaterStrategies.pdf.

²⁶ Legislative Analyst's Office. 2008. *California's Water: An LAO Primer*. P.67. http://www.lao.ca.gov/2008/rsrc/water_primer/water_primer_102208.aspx.

proposed BDCP twin tunnels, and various surface storage schemes.²⁷ For all of these reasons – as well as the environmentally destructive impacts of major dams – EWC member organizations oppose the construction of Sites and Temperance Flat Reservoirs and the raising of Shasta Dam and support the more effective measures cited here. Further, raising Shasta Dam on the Sacramento River would be illegal because of its impact on the Wild River status of the McCloud River and its damaging impact on Winnemen Wintu sacred areas.

Implementation of the above actions by EWC organizations will include:

- Advocacy in the legislature to establish a statewide oversight unit within the State Water Resources Control Board responsible for developing the permanent supply enhancements and demand reduction targets called for in this report. This can be accomplished by utilizing unspent conservation funds from previous bonds.
 - Prioritizing Southern California water districts for the development of these conservation targets, ensuring that the required California Urban Water Conservation Council reports submitted by the Metropolitan Water District agencies, the Los Angeles Department of Water and Power, and the San Diego Water Authority targets are in accordance with the targets established in this plan. Failure to accomplish those goals in the future should be met with fines imposed by the State Water Resources Control Board.
 - Ensuring that the Southern California water agencies' targets will facilitate a direct reduction of Delta exports in accordance with the Delta Reform Act of 2009. These direct links to export reduction should be incorporated into the existing CUWCC reports.
- EWC will continue collaborating with Green California (Southern California) and the Metropolitan Water District of Southern California to assure the continued implementation of an adequate conservation budget and the conservation, water efficiency, and demand reduction actions described in this report.
- Advocate at the state legislature and the State Water Resources Control Board for mandatory water rationing by all three water sectors identified in this plan.
- Advocate with the state legislature and the State Water Resources Control Board for measures facilitating movement away from high water-demand permanent crops, such as almonds and pistachios, thus lowering water usage in accordance with the “waste and unreasonable” use of water doctrine established in California state law.
- Facilitation of legislation to provide funding to establish a California water efficiency education and publicity program, similar to other health and safety programs that are sponsored and publicized by the state. The program must ensure the equitable distribution of conservation investments among rural and low income communities.
- Participation with the Delta Vision Commission in adopting the Natural Resources Defense Council’s recommendations regarding the water efficiency Loading Order. This

²⁷ Strategic Economic Applications Company. 2009. The Sacramento San Joaquin Delta – 2009, An Exploration of Costs, Examination of Assumptions, and Identification of Benefits, Draft.

would include implementation of a Loading Order policy through the State Water Resources Control Board, the State Public Utilities Commission and the Legislature that establishes water use efficiency as a top state priority; it would also include a public goods surcharge on every acre-foot of water delivered in California, with the proceeds used to fund or subsidize efficiency programs.

- Encouraging broad advocacy group participation in the conservation activities of local urban and agricultural water districts and continued advocacy for conservation and water efficiency programs with regional, state, and federal agencies.
- Inclusion of at least one EWC organization staffer to the Public Advisory Committee prior to the next iteration of the State Water Plan.

Funding for the above actions can come from existing or future bond funds, from Title 16 funding, through the recommended public goods charges, or through regulatory changes. Additionally, since rate payers will bear the ultimate costs of these and other types of measures, rate payers must be given a voice in determining choices. Based on the LAEDC report, estimated costs for a statewide program along the lines shown in Figure 1 might range to \$2.7 billion (through 2025), with most of the costs occurring in Southern California urban areas.

**REDUCE EXPORTS TO NO MORE THAN 3 MILLION ACRE FEET IN ALL YEARS
IN ACCORDANCE WITH SWRCB FLOWS CRITERIA.**

Numerous scientific and legal investigations have identified Delta export pumping by the state and federal projects as a primary cause of the decline of the health of the Bay/Delta estuary and its fish. These studies and reports include the California Fish and Game Commission's 2009 listing of longfin smelt under the Endangered Species Act; the US Fish and Wildlife Service's 2008 Biological Opinion for Delta smelt; the National Marine Service June 4, 2009 Biological Opinion on Central Valley Project (CVP) and State Water Project (SWP) Operations; the State Water Resources Control Board's Bay-Delta Water Quality Control Plan and Water Rights Decision 1641; the CALFED Bay-Delta Program's 2000 Ecosystem Restoration Program Plan; and the Central Valley Project Improvement Act's Anadromous Fish Restoration Program.

The guidelines of the Fish and Wildlife Service's Biological Opinion require reduced pumping to minimize reverse flows and resultant fish kills during times of the year when Delta smelt are spawning and the young larvae and juveniles are present.

The long-term decline of the Delta smelt coincides with large increases in freshwater exports out of the Delta by the state and federally operated water projects, (Figure 2). CALFED's Ecosystem Restoration Program reminds us that "the more water left in the system (i.e., that which flows through the Delta into Suisun Bay and eventually the ocean), the greater the health of the estuary overall; there is no such thing as 'too much water' for the environment."²⁸

The main input to the Delta – the Sacramento River, which provides 70 percent of Delta inflow in average years²⁹ – does not provide sufficient water for all existing claimants in most years; moreover, climate change is expected to decrease flows in the future. The system cannot provide full delivery of water to CVP and SWP contract holders in most years. Recent court-ordered water export limits that protect endangered fish species, the continuously deteriorating earthen levees of the Delta, and the potential adverse effects of climate change on water supplies combine to make Delta water supply reliability highly uncertain.

According to the recent National Marine Services Biological Opinion, the proposed actions by the CVP and SWP to increase export levels will exacerbate problems in the Delta.³⁰ We do not believe that the water exporters' goals of maintaining or increasing Delta exports are attainable; neither are the junior water rights holders' expectations that they should have a full contracted water supply each year, especially in view of the collapse of the Delta's fisheries and the impacts of climate change.

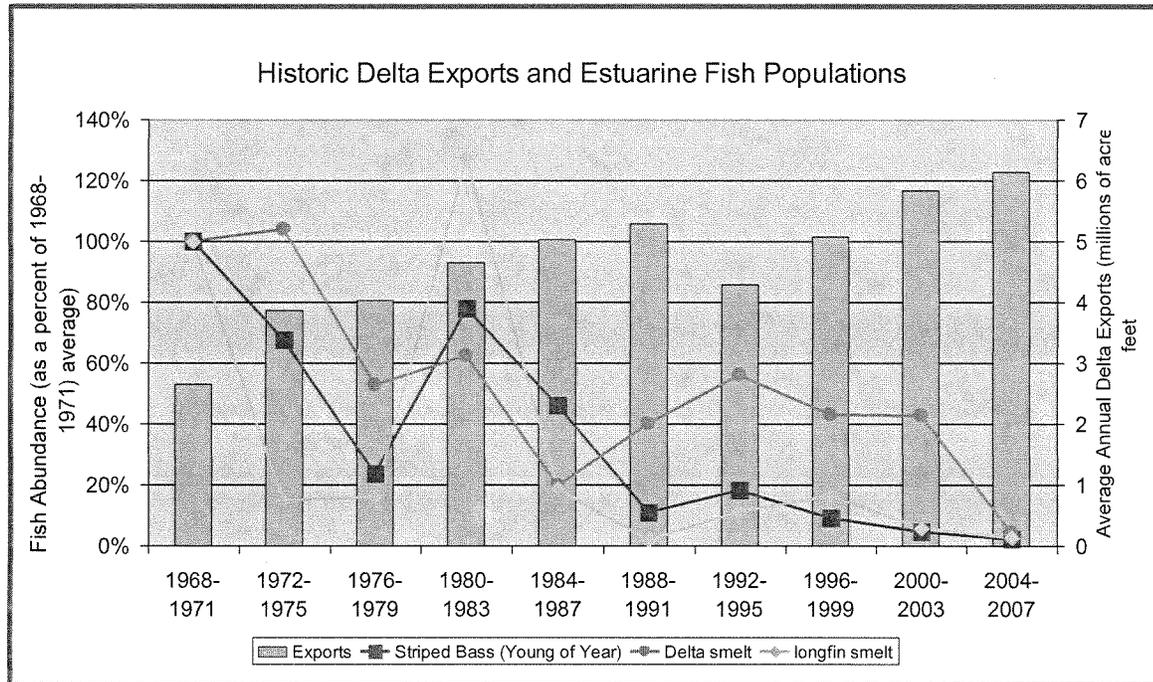
²⁸ CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 23. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

²⁹ Delta Vision Final Report. 2008. State of California Resources Agency. P. 41.

http://deltavision.ca.gov/BlueRibbonTaskForce/FinalVision/Delta_Vision_Final.pdf.

³⁰ National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Page 629. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

Figure 2



Source: Environmental Defense Fund.³¹ Original source is California Data Exchange Center and California Department of Fish & Game - Midwater Trawl Data

Over time, annual Delta outflows have been reduced on average by one half,³² with associated declines in native fish abundance. Export pumping from the Delta is a major cause of reduced outflows, but not the only one. Diversions for CVP contractors upstream of the Delta, combined with “non-project” (that is, non-federal, non-state) diversions, account for a significant portion of outflow reduction. In fact, 31 percent of upstream water is diverted annually before reaching the Delta.³³ In the 1990s, under the threat of federal intervention, California increased the required outflow to the Bay, but not enough to restore the Delta’s ecosystem or prevent further declines.

Over the years, a number of processes have identified the need to dramatically improve outflows in order to recover listed species to a sustainable level and restore ecosystems in the Bay-Delta. From 1988, when the State Water Resources Control Board (SWRCB) proposed – but withdrew without public discussion – standards that would have required an average increase in outflow of 1.5 million acre-feet over the lower diversion levels of the period before the late 1980s, to 2009, when the California Legislature adopted a new policy of reducing reliance on the Delta for water supply uses, the need for greater outflow and reduced exports has been

³¹ Environmental Defense Fund. 2008. Finding the Balance. P. 3. http://www.edf.org/documents/8093_CA_Finding_Balance_2008.pdf

³² CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 21. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

³³ CALFED Ecosystem Restoration Program. 2008. Stage 2 Implementation Draft. P. 20. http://www.delta.dfg.ca.gov/erp/reports_docs.asp

acknowledged but not achieved. In 2010, the State Board developed and approved flow criteria (as directed by the 2009 Delta Reform Act) intended to protect public trust waterways and fish in the Delta. Those criteria have not been implemented.

The SWRCB report³⁴ noted the necessity of preserving the attributes "...of a natural variable system to which native fish species are adapted." Thus, many of the criteria developed by the State Water Board are crafted as percentages of natural or unimpaired flows. These criteria include:

- 75% of unimpaired Delta outflow from January through June;
- 75% of unimpaired Sacramento River inflow from November through June;
- 60% of unimpaired San Joaquin River inflow from February through June.

This compares with the historic flows over the last 18 to 22 years, which have been:

- About 50% on average from April through June for Sacramento River inflows
- Approximately 30% in drier years to almost 100% of unimpaired flows in wetter years for Delta outflows
- Approximately 20% in drier years to almost 50% in wetter years for San Joaquin River inflows

As far back as 1960, the Department of Water Resources knew that without the North Coast Rivers, they would not be able to get more than approximately 3.2 million acre-feet from the Delta^{35, 36}. The rebuttable presumption, consistent with the evidence of the last two decades and with the new state policy to reduce Delta water supply reliance, is that a total export of no more than 3 million acre-feet in all water year types is prudent. EWC's members believe that a number at or near this level should now be used by the state and federal governments in planning and permitting future Delta export operations – with or without the BDCP tunnels – in order to promote the recovery of the Delta's ecology and its fish populations, and to provide healthy Delta outflows to San Pablo and San Francisco Bays.

The Delta Flows Criteria promulgated by the State Water Resources Control Board (SWRCB) clearly indicates that the state has exceeded the amount of water that can be diverted responsibly from the Bay/Delta estuary. As a result, the EWC plan anticipates future limitations on Delta exports below the level of the 2000-2007 time periods in order to meet Delta ecosystem restoration goals. The recent PPIC report reinforces this: "...Given the extreme environmental degradation of this region, water users must be prepared to take less water from the Delta, at least until endangered fish populations recover." Information presented to the State Water Resources Control Board during hearings related to their Water Quality Control Plan has shown that water allocations exceed the normal year's water availability by a factor of five, putting further pressure to reduce exports.³⁷

³⁴ State Water Resources Control Board and California Environmental Protection Agency. DRAFT Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem. July 2010. Pp. 5.

³⁵

³⁶ California Department of Water Resources. 1960. Bulletin 76 Delta Water Facilities. Water Sources and Uses Table, Page 11. http://www.water.ca.gov/waterdata/library/docs/historic/Bulletins/Bulletin_76/Bulletin_76_1960.pdf

³⁷ Testimony on Water Availability Analysis submitted by Tim Strohane (C-WIN) before the State Water Resources Control Board, October 26, 2012. P. 11 http://c-win.org/webfm_send/265

The current approach of managing the Delta for water supply will lead to intense pressures to make increased exports the major goal of the BDCP with the health of the Bay/Delta estuary presented as a lower priority. One of the main objectives of this EWC plan is to decrease the physical vulnerability and increase the predictability of Delta supplies; EWC members oppose an increase in average annual Delta exports. The BDCP promotes a fallacy that it is possible to increase exports while somehow recovering fish species and ecosystems. This has led to a warped scientific program, as pointed out by The Bay Institute in their recent Briefing Paper on the BDCP Effects Analysis³⁸ and by the U.S. EPA in their formal comments pointing out the potential for the BDCP to contribute to the demise of Salmon.

Recent letters from the EPA and the Bureau of Reclamation indicate that the EPA believes that the (BDCP) EIS/EIR will need to include a significant analysis of alternatives reflecting reduced Delta inflow and reduced exports,³⁹ and that a significant increase in exports out of the Delta is inconsistent with recent state legislation (to reduce reliance on the Delta).⁴⁰

Changing the infrastructure will not solve the problem of a shrinking Delta water supply. A vigorous debate is now underway over whether a new isolated conveyance facility to move water around or under the Delta should be constructed – a revised version of the Peripheral Canal. Even those who support a new facility (and dual conveyance) as a solution to improve environmental conditions and water supply reliability, including the Public Policy Institute,⁴¹ the Delta Vision Blue Ribbon Task Force, and some environmental groups, do not believe that constructing this new facility will generate any new water. Whether or not a new conveyance facility is approved and built, the inexorable trend will be for the reliability of north-to-south water transfers through or around the Delta to decline, and for water users who currently rely on Delta exports to seek alternative sources of supply and to increase their conservation and reuse of that supply.

According to the Bay Delta Conservation Plan,⁴² the version of the BDCP twin tunnels now under consideration would have the capacity to export 9,000 cubic feet of water per second from a series of two massive 40' unlined intake tunnels, 35 miles long, buried 150' under the Sacramento River north of the Delta. This almost exactly matches the existing capacity of the combined state and federal pumps. The current approach of managing the Delta for water supply will almost certainly lead to intense pressures to make increased exports the major goal of the BDCP while the health of the Delta will be a lower priority.

Reduced dependence on the Delta by south-of-Delta water users would also obviate the need for new conveyance around or under the Delta and new surface storage reservoirs, avoiding costs of perhaps tens of billions of dollars for taxpayers and the potential for stranded assets

³⁸ The Bay Institute and Defenders of Wildlife. The BDCP Effects Analysis, Briefing Paper. February 2012. <http://www.bay.org/assets/BDCP%20EA%20Briefing%20Paper%2022912.pdf>

³⁹ http://www.epa.gov/region9/water/watershed/sfbaydelta/pdf/EPA_Comments_BDCP_3rdNO_051409.pdf

⁴⁰ <http://www.epa.gov/region9/water/watershed/sfbay-delta/pdf/EpaR9CommentsBdcpPurpStmt6-10-2010.pdf>

⁴¹ Public Policy Institute of California. 2008. Comparing Futures for the Sacramento-San Joaquin Delta. P. 123-124. http://www.ppic.org/content/pubs/report/R_708EHR.pdf

⁴² Bay Development Conservation Plan. http://www.baydeltaconservationplan.com/CurrentDocumentsLibrary/Chapter_3_Conservation_Strategy_Combined_v2.pdf

resulting from climate change and sea level rise in the Bay-Delta estuary. This reorientation will undoubtedly require some south-of-Delta infrastructure enhancements, but the costs will be far below those needed for a trans-Delta canal or tunnel system and a new reservoir north of the Delta.

Climate change projections indicate that over the longer term, global warming will reduce the total amount of precipitation, resulting in significant reductions in Sacramento River flows. There is no indication that this has been factored into present plans, and it is possible that new conveyance for Sacramento River water may become a stranded asset.

Implementation of the above actions by EWC organizations will include:

- Continued legal actions against implementation of the proposed Final Delta Plan and advocacy for the implementation of the EWC Sustainable Water Plan as an alternative to the Delta Plan.
- Continued opposition to the implementation of the Bay Delta Conservation Plan and advocacy for the implementation of the EWC Sustainable Water Plan as an alternative to the BDCP.
- Continued presentation of relevant data supporting the EWC Sustainable Water Supply Plan at the ongoing State Water Board Water Quality Control Plan hearings and meetings.

Funding will depend on the results of State Water Resources Control Board hearings on Delta flows, which are scheduled for conclusion in 2015 or later. Subsequent to those hearings, implementation and funding plans will most likely fall within the purview of the state legislature.

ENFORCE WATER QUALITY STANDARDS IN THE ESTUARY AND IN IMPAIRED RIVERS.

The federal Clean Water Act and the state Porter-Cologne Water Quality Control Act state that the state's water quality control plans are intended to improve water quality, not merely to maintain it.

The process of updating the Water Quality Control Plan for the Delta is ongoing; the current iteration began in 2009 with a Staff Report that identified issues for further examination in the water quality control planning process. The update is planned to proceed in four phases. Phase 1 would set flow standards for the San Joaquin River and major tributaries and consider the standards for South Delta salinity. Phase 2 would set standards for Sacramento River inflow, Delta flow, Delta outflow and Delta/Suisun Marsh water quality. Phase 3 would incorporate the revised standards into the water rights permits through evidentiary hearings. Phase 4 would establish instream flows for major tributaries of the Sacramento River.

As with many planning processes, real life intervened. In 2009, the Legislature directed the State Water Board to prepare public trust-protective flow criteria for the Delta in early 2010, and the Board completed and approved a seminal study in August of the same year.

The Board's Delta Flow Criteria Report announced that flows indeed were too low and exports probably too high to sustain declining fish populations, other water quality and ecological stressors affected the recovery of listed Delta fish species, "flow and physical habitat interact in many ways, but they are not interchangeable," and that "scientific certainty is not the standard for agency decision making."⁴³

Drought response has also consumed a great deal of the State Water Board's staff time and attention. This has forced lengthy delays in its planning processes as well. The update is planned to proceed in four phases. Phase 1 would set flow for the San Joaquin River and its major tributaries (the Merced, Tuolumne, and Stanislaus) and relax interior south Delta salinity objectives. Phase 2 would revisit water quality and flow objectives for Sacramento River tributaries, Delta inflow, Delta outflow and Suisun Marsh water quality. Phase 3 would implement the revised standards into all post-1914 water rights permits through evidentiary hearings (i.e., using sworn testimony and cross-examination). Phase 4 would establish instream flow criteria for major tributaries of the Sacramento River.

The Board's 2013 proposed Water Quality Control Plan sought to relax salinity objectives in the south Delta. This action would harm Delta ecosystems and water quality for Delta farmers, both already struggling with poor water quality and low water levels due to the massive state and federal pumping plants near Tracy. The Board essentially proposed relaxing salinity objectives to levels the water projects could meet more regularly—a case of moving the goal line closer so touchdowns would be easier to score. But their proposal ran up against federal and state water

⁴³ http://www.swrcb.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/final_rpt.shtml. See pages 4 and 5.

quality regulations that require objectives to protect the most sensitive beneficial uses, and to prevent degradation of water quality below that which now exists.

The Board's 2013 plan puts maintenance of water supply yield for the federal Central Valley Project and the State Water Project over all other beneficial uses and over the more senior rights of diverters on the three tributary rivers – the Merced, Tuolumne, and Stanislaus. In essence, the Board constructed its flow criteria and water quality control planning for the implicit outcome of “no net loss to exports,” per the failed CALFED mantra, and has ignored its responsibilities to evaluate the competing needs of all beneficial uses in the process of developing flow and water quality objectives.

This arbitrary decision to favor one user group over other public trust values also violates the Delta Reform Act. Passed in 2009, this act unequivocally states that importers of water from the Delta (principally the State Water Project and the federal Central Valley Project, and their water service contractors) must reduce their reliance on Delta supplies as they plan to meet their future water needs.

The failure of the SWRCB to discharge its responsibilities can be illustrated by the criticisms of environmental groups during the recent Water Quality Control Plan hearings related to the San Joaquin basin.⁴⁴ Those criticisms included:

- Failure to comply with the Delta Reform Act policies requiring Delta importers to reduce their reliance on the Delta for future water supplies.
- Failure to develop protective water quality objectives
- Failure to follow State and Federal Anti-degradation policies
- Failure to include the Upper San Joaquin River above the Merced River confluence from the Water Quality Control Plan

The State Water Board will be unable to legitimize its next water quality control plan for the Bay-Delta estuary and watershed until it deals with the problem of paper water: the practical reality that far more water rights are claimed for Central Valley rivers and streams than there is water to satisfy them. The drought and the Board's actions to curtail junior water rights during 2014 demonstrated this, -- most importantly to staff and appointed Board members. In 2012, EWC member groups, including the California Water Impact Network, the California Sportfishing Protection Alliance, and AquAlliance, demonstrated there are 5.5 acre-feet of water right claims to every acre-foot flowing in an *average* year.⁴⁵ This ratio increases during drought years; if river flows decrease by half amid drought, the ratio of water right claims chasing scarcer water *doubles*.

The torrent of criticism in 2013 and the searing experience of drought in 2014 and again this year have sent the Board back to the drawing board. They intend to issue a revised Substitute Environmental Document (SED) in the near future, but a specific date has not been announced. The fates of Phases 2, 3 and 4 have yet to be determined. Unfortunately, delay is not kind to either

⁴⁴ <http://ewccalifornia.org/reports/commentlettersjflows.pdf> and <http://ewccalifornia.org/reports/attachmentsjflows.pdf>

⁴⁵ California Water Impact Network. Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary. October 26, 2012. Page 11. http://c-win.org/webfm_send/265

fisheries or water quality.

For the first time in 45 years of water quality planning history, the State Water Resources Control Board has decided in Phase 1 to stop treating the Bay-Delta Estuary as a whole for planning purposes. It has instead chopped up the Delta and severed the upper San Joaquin River above the Merced River confluence from its planning considerations, and separated planning considerations on these matters from the rest of the Delta. The real Bay-Delta estuary does not operate this way. The Environmental Water Caucus believes that the State Water Board has done this in violation of its planning obligations, and is piecemealing water quality control planning in violation of the California Environmental Quality Act.

An August 2014 letter from the U.S. Environmental Protection Agency to DWR has indicated that the BDCP will degrade water quality for in-Delta water users, would violate the federal Clean Water Act, and increase harm to endangered fish species.⁴⁶ Although increasing flows, as described in this EWC Sustainable Water Supply plan, will improve many aspects of Delta water quality, we must also continue to pursue specific and targeted water quality actions in order to restore the health of the Delta.

Implementation of the above actions by EWC organizations will include:

- Continue to present data and advocate for the applicable features of the EWC Sustainable Water Supply Plan at the ongoing State Water Board's Water Quality Control Plan hearings and meetings.
- Continue to advocate with the SWRCB for the following three policies and actions: a meaningful water supply availability analysis; a benefit-cost analysis which includes a valuation of exports versus the value of restored ecosystems; a public trust evaluation of water quality actions for the Delta.
- Advocate at the SWRCB that Delta water quality objectives must protect the most sensitive beneficial uses, such as Delta smelt and drinking water supplies, and prevent degradation of water quality throughout the Delta, including the south Delta.
- Insist that the State Water Board adhere to and enforce Delta Reform Act policies and priorities, which include reduced Delta reliance by importers; using the best available science in its decision making; improving water quality to protect human health and the environment, and restoring Delta ecosystems, including those supporting fisheries and wildlife.

Funding. No estimates available.

⁴⁶ : <http://www.sacbee.com/news/state/california/water-and-drought/delta/article2608060.html#storylink=cpy>

GROUNDWATER MANAGEMENT.

Environmental organizations were generally disappointed with the groundwater monitoring features that were included in the Delta Reform Act of 2009. Earlier drafts of the original 2009 legislation required groundwater monitoring and reporting throughout the state, but the final legislation was weakened to make groundwater reporting a voluntary effort. Since groundwater represents 30% of California's water supply in most years, we must face this politically difficult situation by requiring mandatory groundwater reporting throughout the state.

For too long this huge resource has been over-used, over-drafted, and over-subscribed. The amount of water used has largely remained a mystery, and numerous once-healthy groundwater basins have been drained and contaminated. Of all the states, only California and Texas have been so negligent in managing groundwater. We cannot manage what we do not measure.

For reasons explained in other sections of this plan, the EWC long has expressed support for public groundwater storage over the construction or expansion of additional surface storage. We have advocated for the mandatory reporting of groundwater pumping and for the implementation of sustainable practices for groundwater management and utilization.

During the past year, with the passage of the Sustainable Groundwater Management Act of 2014, the California legislature took a step toward the mandatory reporting and sustainable management of our groundwater basins. The Act authorizes the establishment of "groundwater sustainability agencies" that will manage local groundwater basins. The Legislature has granted broad discretionary powers to these agencies, including authority to allocate groundwater supplies between users within their boundaries and regulate, limit, or suspend groundwater extractions. An agency may adopt rules, regulations, ordinances, and resolutions related to groundwater management, and have broad powers regarding groundwater monitoring and the construction and operation of new and existing wells. A sustainability agency may impose fees to fund the cost of a sustainability program, including permit fees, groundwater extraction fees, and fees imposed as ad valorem property taxes.

The Act applies to groundwater found within 515 basins delineated by the DWR throughout the state. DWR has categorized each of these basins as high, medium, low or very low priority; the 127 basins designated as high or medium priority are the source of approximately 90 percent of all groundwater produced in the state.⁴⁷ The Act does not apply to 26 basins that have been subject to prior court adjudication, mostly in Southern California.

A sustainability agency must adopt a groundwater sustainability plan for each high and medium priority basin by January 31, 2022. If DWR has designated a basin as subject to critical conditions of overdraft, the sustainability plan must be adopted by the earlier date of January 31, 2020. All plans must be submitted to DWR, which will review them for adequacy. If a sustainability agency is not established for the entire area of a high or medium priority basin by

⁴⁷ California Department of Water Resources, California Water Plan Update 2013, V-1 The Strategic Plan, 3-90

July 1, 2017, or if a sustainability plan has not been adopted by the deadlines above, or if DWR has determined that a sustainability plan is inadequate, the State Water Resources Control Board may declare the basin a “probationary basin” and adopt an interim plan of the SWRCB’s own creation.⁴⁸ Implementation dates of 2020 and 2022 seem unnecessarily long in view of the conditions of the medium and high priority and critical overdraft areas.

The EWC position on the Groundwater Sustainable Management Act is circumspect. While we applaud the Act as a step in the right direction (local control), we are concerned about the ability of new local agencies to improve the California groundwater management practices; we are also concerned about a state takeover of groundwater management. The current situation for surface water -- where there are far more rights than available water -- is not a good recommendation for statewide groundwater management. The deadlines for implementation of the Act are sufficiently far in the future to allow oversight of the process, with comment based on the ultimate actions of local and state agencies.

Implementation of the above actions by EWC organizations will include:

- Participation in the legislative and agency meetings that review the results of the Sustainable Groundwater Management Act and that designate additional components for inclusion in the Act.
- Possible changes to the Sustainable Groundwater Management Act that we support are:
 - Shorter implementation sustainability plan deadlines for the high and medium priority basins and for areas in critical overdraft.
 - Shorter implementation dates for achievement of sustainability in such basins.
 - Metering and reporting of groundwater withdrawals for wells (including agricultural wells) in high and medium priority basins and in areas of critical overdraft.

Funding. No estimates available.

⁴⁸ The preceding three paragraphs are taken from *Dark Clouds Over California*, a blog by Wes Strickland <http://privatewaterlaw.com/2014/11/19/dark-clouds-over-california/>

PROPOSITION 1

Officially entitled the Water Quality, Supply and Infrastructure Improvement Act of 2014, this legislation is a \$7.54 billion general obligation bond measure approved by California voters on the Nov. 4, 2014 ballot. Proposition 1 would allow the state to redirect \$425 million in unsold bonds and sell \$7.1 billion in additional bonds, for a total of \$7.5 billion in general obligation bonds. The funds would be used to manage water supplies, protect and restore wetlands, improve water quality, and increase flood protection. Of the total \$7.54 billion, \$5.7 billion is available for water supply and water quality projects only if recipients provide a local match: in most cases 50% of the total cost.

Specific spending proposals in the proposition include:

- \$2.7 billion for water storage projects, dams and reservoirs.
- \$1.5 billion or competitive grants for ecosystem and watershed protection and restoration projects.
- \$900 million for competitive grants and loans for projects to prevent or clean up the contamination of groundwater that serves as a source of drinking water.
- \$810 million for expenditures on integrated regional water management plan projects.
- \$725 million for water recycling and advanced water treatment technology projects.
- \$520 million to improve water quality, including reducing and preventing drinking water contaminants and providing assistance to disadvantaged communities.
- \$395 million for statewide flood management projects and activities.

The EWC could support many of the projects funded by Proposition 1, such as the cleanup and prevention of polluted groundwater; drinking and wastewater treatment projects; and water recycling, rainwater capture, conservation, and water-use efficiencies; these measures will help reduce demand on surface water and groundwater over the long term. However, we have serious concerns that the proposition generally favors large surface water storage projects and hands spending control to a commission composed of political appointees with no budgetary oversight and a predisposition to favor new or expanded surface storage. This is the wrong direction for the state's long-term water sustainability and for recovery of our degraded aquatic ecosystems. EWC's position on Proposition 1 is best expressed by comments taken directly from the web site of one of our member organizations:⁴⁹

“The California Sportfishing Protection Alliance (CSPA) has carefully reviewed the provisions of Assembly Bill 1471, *Water Quality, Supply and Infrastructure Improvement Act of 2014*, and concludes that it represents a grave and insidious threat to core environmental values and principles buttressing protection for fisheries and the environment. Proposition 1 undermines the public trust doctrine and the crucial principles that beneficiaries of projects should pay for them and that projects should be responsible for mitigating their adverse impacts. Furthermore, it paves the way for

⁴⁹ California Sportfishing Protection Alliance. Statement of Opposition to Proposition 1. <http://calsport.org/news/wp-content/uploads/CSPA-14-Point-Opposition-Prop-1.pdf>

a new era of big dam building; is a pork-filled barrel of subsidies to special interests, including BDCP; provides little near-term drought relief; eliminates public oversight; crowds out other critically needed investments; is fiscally irresponsible, and it sabotages, delays and diverts funding from meaningful efforts to address California's continuing water crisis."

After listing 14 reasons for opposing Proposition 1, the CSPA statement concludes that it "...*shamefully holds a few worthy projects hostage to fiscally irresponsible and environmentally damaging projects.* In other words, the bond contains a surface storage "poison pill" that precludes our support.

Obviously we did not prevail in our opposition to Proposition 1. It would have been difficult under the circumstances, given bond supporters spent more than \$21 million while those opposing the bond spent about \$100,000.⁵⁰

Our current and future position focuses on support of those measures in the bond that are in line with the EWC plan (such as water efficiency, demand reduction, water recycling and ecosystem restoration) and strong opposition to funding for surface storage projects. EWC will also advocate for increased funding for groundwater solutions for water storage.

Implementation of the above actions by EWC organizations will include:

- Tracking California Water Commission proceedings related to storage option funding; we will work to direct funding to groundwater options and oppose funding for surface storage options.
- Tracking and influencing the distribution of funds for the water conservation-related options of Proposition 1 in accordance with the EWC Sustainable Water Supply Plan.
- Continued EWC/EJCW responses as necessary in support of the Winnemen Wintu tribe's opposition to potential federal plans to raise Shasta Dam

Funding. No current estimates available.

⁵⁰ [http://ballotpedia.org/California_Proposition_1,_Water_Bond_\(2014\)](http://ballotpedia.org/California_Proposition_1,_Water_Bond_(2014)) Note: part of the support totals include funds for the "Rainy Day" initiative that was also on the ballot.

ELIMINATE IRRIGATION WATER ON DRAINAGE-IMPAIRED FARMLANDS SOUTH OF THE BAY DELTA.

Selenium, arsenic, boron, molybdenum, mercury, and various other salts and minerals are highly concentrated in the soils of the Delta-Mendota Service Area, the San Luis Units of the CVP and portions of the Kern and Tulare basins served by the SWP. Descriptions of these soils are presented in the 1990 joint federal and state report known as “The Rainbow Report.”⁵¹

The San Luis Act of 1960 requires a drain system as a condition of approval of the San Luis Unit CVP contracts, including the Westlands Water District. Initially, the Bureau of Reclamation planned to build a San Luis Master Drain to the Bay-Delta from these lands, but the drain to the Delta was stopped after 93 miles were completed; the terminus was Kesterson Reservoir near Los Banos, where thousands of migratory birds died from selenium poisoning due to toxic drainwater. The US Geological Survey recently estimated that even if the San Luis Drain were completed, irrigation of the San Luis Unit of the CVP were halted, and 42,500 pounds of selenium a year were discharged into the Delta from ongoing agricultural drainage, it would take 65 to 300 years to eliminate the selenium already deposited in valley groundwater.⁵²

Since the late 1960s and 1970s, the Central Valley Project has been supplying water to approximately 1.3 million acres of drainage-impaired land on the west side of the San Joaquin Valley. This is a clear violation of the California constitution’s prohibition against waste and unreasonable use of the state’s water.⁵³ Eliminating or reducing the irrigation of this land would save up to 2 million acre-feet of water in most years.⁵⁴

Farmers and water districts throughout the western San Joaquin Valley have been trying to reduce their drainage water. Much, however, remains to be done. Retiring these lands from irrigated agriculture remains by far the most cost-effective and reliable method of eliminating harmful discharges to water bodies and aquifers. The Westlands Water District already has retired approximately 100,000 acres of impaired land; a 2007 federal report considered but dismissed an option to retire 300,000 acres of drainage-impaired lands in the San Luis unit of the CVP, instead recommending the retirement of 194,000 acres.⁵⁵ Unfortunately, the federal government is now considering a litigation settlement with Westlands that would not retire *any* additional lands and would forgive more than \$300 million in debt to U.S. taxpayers.

Any long-term solution to the west side’s drainage problem must focus on additional land retirement complemented by selective groundwater pumping, improved irrigation practices, and application of new technologies where appropriate. Any approach that is not founded on land

⁵¹ U.S. Department of the Interior, California Resources Agency. September 1990. A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley. P. 2-3.
http://www.water.ca.gov/pubs/groundwater/a_management_plan_for_agricultural_subsurface_drainage_and_related_problems_on_the_westside_san_joaquin_valley/rainbowreportintro.pdf

⁵² Presser, Theresa S. and Samuel N. Luoma. 2007. Forecasting selenium discharges to the San Francisco Bay-Delta Estuary: Ecological effects of a proposed San Luis Drain Extension. The US Geological Survey, Professional Paper 1646. Abstract P. 1.
<http://pubs.usgs.gov/pp/p1646/>

⁵³ California Constitution. Article 10, Section 2. http://www.leginfo.ca.gov/const/article_10.

⁵⁴ Pacific Institute. 2008. More with Less: Agricultural Water Conservation and Efficiency in California. P.7.
http://www.pacinst.org/reports/more_with_less_delta/index.htm

⁵⁵ U.S. Geological Survey. 2008. Technical Analysis of In-Valley Drainage Management Strategies for the Western San Joaquin Valley, California

retirement ultimately will result in the increased concentration of selenium and salts in the shallow aquifers of the San Joaquin Valley, where they will be mobilized by flood events or groundwater transport.

Taking these “badlands” out of production would reduce demand for Delta water diversions and significantly improve water quality in the San Joaquin River. A planned program of land retirement and other drainage volume reduction actions also would mitigate impacts to the farm labor community. As noted in the Rainbow Report, these lands ultimately will go out of production even if irrigation continues; ongoing irrigation simply will accelerate drainage impairment. A far better use of these impaired farmlands would be to provide state or federal incentives for the production of solar energy farms.

Implementation of the above actions by EWC organizations will include:

- Opposition to providing CVP irrigation water to approximately 1.3 million acres of impaired farmlands in the west side of the San Joaquin Valley and in the Tulare Basin.
- Support of the permanent retirement of all drainage-impaired farmlands.
- Opposition to the proposed litigation settlement between the United States and Westlands Water District. (This proposal would *not* require additional land retirement and would forgive hundreds of millions of dollars in debt incurred by Westlands.)
- Opposition to extending Grassland Bypass Project discharges that exceed selenium water quality objectives beyond the current deadline of 2019.

Funding. No current estimates are available, but the Bureau of Reclamation’s own economic analysis shows that maximum land retirement provides positive economic benefits while keeping the land in production results in a net economic loss.

KEEP WATER TRANSFERS WITHIN THE REVISED DELTA EXPORT LIMITS.

Since the early 1990s, water transfers via market transactions have been used to overcome what some economists and water managers feel is the inflexibility of California water rights priorities—first in time, first in right. Such transfers typically become most visible to the public during drought years, when junior water rights holders like the federal Central Valley Project and the State Water Project face cutbacks as more senior water right holders exert their priority to the water that remains. Junior water rights holders attempt to obtain more surface water supplies by offering to purchase water directly from willing sellers, who are usually holders of senior water rights. There are three ways this is done: 1) crop-shifting, 2) fallowing, and 3) groundwater substitution. Fallowing and groundwater substitution transfers have been the methods of choice for water sellers in the past.

The U.S. Bureau of Reclamation and the California Department of Water Resources oversee the fallowing and groundwater substitution transfers, but there is an inadequate monitoring, mitigation, and reporting process, so the environmental and economic consequences from transfers are not readily apparent.⁵⁶ The agencies are aware that fallowing creates impacts to other downstream users that are dependent on the tail water, avian and terrestrial species, and local economies,⁵⁷ but monitoring and reporting are inadequate to non-existent. Groundwater substitution occurs when river water is sold and groundwater is pumped to continue crop production (usually rice). The agencies know that the most significant and immediate impacts from these transfers is to other well users, streams and rivers, and terrestrial and aquatic species. *Id.* The monitoring, analysis, and public reporting of the immediate and long-term impacts of these two forms of water transfers are inadequate.

The Sacramento Valley's groundwater already is in a depleted state (see Tables 1 and 2). Further excessive pumping likely will result in ecological and economic disaster for the Delta and the Sacramento Valley. Water transfers are intended to overcome water rights priorities, but as noted above, they also have the potential to cause, among other things, falling groundwater elevations, overdraft (pumped supplies outpacing the rate of recharge to the aquifer), land subsidence (where the elevation of the land surface actually falls as emptied aquifers collapse and lose storage capacity), and increased stream flow losses (chasing a falling groundwater table). This has been the experience of agricultural regions in the Santa Clara Valley (before it urbanized into Silicon Valley) and the San Joaquin Valley, as well as in urban groundwater basins of the Los Angeles region. These conditions (falling groundwater elevations, overdraft, land subsidence, and stream flow losses) combined to destabilize once healthy hydrologic systems, which created the exploited conditions that make “conjunctive use” water strategies possible. This must not be repeated in the Sacramento Valley.

⁵⁶ DWR and USBR, 2014. *DRAFT Technical Information for Preparing Water Transfer Proposals (Water Transfer White Paper) Information for Parties Preparing Proposals for Water Transfers Requiring Department of Water Resources or Bureau of Reclamation Approval.*

⁵⁷ USBR and San Luis Delta Mendota Water Authority 2014. *Final Environmental Assessment/Mitigated Negative Declaration for the 2014 San Luis/Delta Mendota Water Authority Water Transfers.*

Table 1: Maximum and average groundwater elevation decreases for Butte, Colusa, Glenn, and Tehama counties at three aquifer levels in the Sacramento Valley between the fall of 2004 and 2013. ⁵⁸

County Fall '04 - '13	Deep Wells (Max decrease gwe)	Deep Wells (Avg. decrease gwe)
Butte	-11.4	-8.8
Colusa	-31.2	-20.4
Glenn	-60.7	-37.7
Tehama	-19.5	-6.6

County Fall '04 - '13	Intermediate Wells (Max decrease gwe)	Intermediate Wells (Avg. decrease gwe)
Butte	-21.8	-6.5
Colusa	-39.1	-16.0
Glenn	-40.2	-14.5
Tehama	-20.1	-7.9

County Fall '04 - '13	Shallow Wells (Max decrease gwe)	Shallow Wells (Avg. decrease gwe)
Butte	-13.3	-3.2
Colusa	-20.9	-3.8
Glenn	-44.4	-8.1
Tehama	-15.7	-6.6

⁵⁸ DWR, ongoing.

http://www.water.ca.gov/groundwater/data_and_monitoring/northern_region/GroundwaterLevel/gw_level_monitoring.cfm#Well%20Depth%20Summary%20Maps

Table 2: Results from DWR's spring monitoring for Sacramento Valley groundwater basin from 2004 to 2014. *Id.*

County Spring '04 - '14	Deep Wells (Max decrease gwe)	Deep Wells (Avg. decrease gwe)
Butte	-20.8	-14.6
Colusa	-26.9	-12.6
Glenn	-49.4	-29.2
Tehama	-6.1	-5.3

County Spring '04 - '14	Intermediate Wells (Max decrease gwe)	Intermediate Wells (Avg. decrease gwe)
Butte	-25.6	-12.8
Colusa	-49.9	-15.4
Glenn	-54.5	-21.7
Tehama	-16.2	-7.9

County Spring '04 - '14	Shallow Wells (Max decrease gwe)	Shallow Wells (Avg. decrease gwe)
Butte	-23.8	-7.6
Colusa	-25.3	-12.9
Glenn	-46.5	-12.6
Tehama	-38.6	-10.8

The annual transfers (frequently called “temporary” or “one-year” transfers) are in addition to the State of California’s “drought water bank” program, which is sometimes used during drought years. All these sales of Sacramento Valley surface waters to buyers south of the Delta result in two significant hydrologic problems:

First, the water that is sold must be transported through the Delta to the dangerous export pumps of the CVP and SWP. Second, landowners selling their surface water may then pump groundwater to irrigate their crops; this causes groundwater elevations to fall for all users and water bodies. If these conjunctive use programs continue in the Sacramento Valley, its aquifers are in dire jeopardy. This Valley’s economy, ecology, and surface waters are highly

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dependent on its natural groundwater abundance.

No net new water should be exported from north of the Delta beyond meeting the contracts of the most senior water rights of the San Joaquin River Exchange Contractors in the San Joaquin Valley. Their supplies are already imported to the San Joaquin Valley as part of export operations of the Central Valley Project from the Delta. This policy protects the Delta from new export pumping impacts, but it also meets a goal of the State Water Resources Control Board: long-term protection of the groundwater supplies of the Sacramento Valley.⁵⁹ Implementation of such a policy is the only way the Sacramento Valley's aquifers can avoid the fate of the once abundant groundwater reserves of the San Joaquin Valley.

Water exports through the Sacramento-San Joaquin Delta /San Francisco Bay estuary – which include individual water sales transactions, Article 21 State Water Project pumping and pumping under the contracts of the Central Valley Project and the State Water Project – play a significant role in the movement of water throughout the state. They also exert major impacts on the ecology of the estuary. The two latter projects provide the largest percentage of exports through the Delta, while water sales and Article 21 pumping are also significant in some years.

A new paradigm is needed in California water policy, one that would simultaneously reduce export pumping through the Delta to a level that maintains a healthy ecosystem, is consistent with the most senior water rights of the Exchange Contractors, and provides reliable sources of water for south-of-Delta water users. Instead of continuing to export extraordinary amounts of water from the Delta, south-of-Delta water users could obtain significant amounts of water from localized south-of-Delta sources in the San Joaquin Valley region. Such “south-to-south-of-Delta” trades would avoid the impacts on fish and wildlife species, water quality, ecosystem conditions, flow volumes and directions, and groundwater in the Sacramento Valley that come with excessive Delta export pumping. It would also avoid the groundwater substitution transfers that could ruin the economy of the Sacramento Valley and the vital streams necessary for already struggling aquatic and terrestrial species. Indeed, a move toward regional water self-sufficiency is now state law due to passage of the Delta Reform Act of 2009.

A more favorable scenario than present and future maximum north-to-south Delta pumping comprises the following changes:

- Encourage San Joaquin Valley water users to voluntarily share resources by providing southern Sierra water to south-of-Delta water users via new interties with existing infrastructure, or by moving agricultural water from the east side of the San Joaquin Valley, where water is more abundant, to west side agriculture, where the water supply is more limited. These changes can be facilitated by providing efficiency incentives for east side water users, resulting in up to 500,000 acre-feet of additional water for the west side. (These policies must be bolstered with safeguards to keep surface water and groundwater basins hydrologically healthy, and must accommodate required outflows to the Delta estuary from the San Joaquin River.)

⁵⁹ Howard, 2011. Letter to Gerald Meral of the Natural Resources Agency regarding the Bay Delta Conservation Plan.

This constitutes a simple and effective solution for regional self-dependency for south-of-Delta agriculture users -- indeed, for all of California. We recommend earmarking a portion of water transfer transactions to fund necessary additional oversight by local governments or qualified third- parties that are removed from the water transaction or movement process.

- Supplies for the Metropolitan Water District and other south-of- Delta users could be sourced by allowing flows from the Kern, Kings, Kaweah, and Tule Rivers to flow into the Tulare basin, re-charging the now-dry Tulare Lake. This option is advocated by the San Joaquin Valley Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-feet. This option may require a new Kern-San Joaquin intertie. Reorienting water transfer policies to benefit south-of-Delta water users will require detailed analysis to confirm feasibility; however, these measures merit serious consideration because they could meet the state requirement for reduced reliance on the Delta .

A Water Transfer Matrix and a set of Water Transfer Principles are included in the referenced EWC report, *California Water Solutions Now*.

As called for in the California Water Code, transfers that use State, regional or a local public agency's facilities require that the facility owner determine that the transfers would not harm any other legal user of water, not unreasonably affect fish and wildlife, and not unreasonably affect the overall economy of the county from which the water is transferred. Unfortunately, there is no enforcement mechanism except litigation, which is an onerous burden for the public. This is a particular concern in the Sacramento Valley, where existing healthy aquifers could be over-drafted by willing sellers in order to supply the same San Joaquin irrigators who caused the existing overdraft conditions in the San Joaquin Valley. In addition, the State Water Plan points out that "some stakeholders worry that State laws and oversight of water transfers may not be adequate to protect the environment, third parties, public trust waterways and fish, and broader social interests that may be affected by water transfers, and transfers that involve pumping groundwater, crop idling, or crop shifting." The EWC plan would come down on the side of county of origin protections and the "precautionary principle" in order to protect the health of groundwater aquifers north of the Delta Estuary.

Implementation of the above actions by EWC organizations will include:

- Opposition to net new water exports from north of the Delta other than those required to meet the contracts of the most senior water rights holders of the San Joaquin River Exchange Contractors.
- Continued advocacy for in-basin groundwater management due to the impacts of accelerating aquifer depletion. Timelines to meet the Sustainable Groundwater Management Act (2014) are too long, considering the escalating impacts from ever-expanding land conversions from grazing and annual crops to orchards, drought and climate change.

Funding. No estimates available.

RESTORE DELTA ESTUARY AND RIVERINE HABITATS AND INTEGRATE FLOODPLAINS WITH RIVERS.

In keeping with the Legislature's mandate – the *permanent protection* of the Delta's natural systems as the *paramount* concern to the state and nation – the first priority should be habitat restoration projects on public lands. To benefit from such efforts, habitat restoration projects must address connectivity between the areas to be restored and existing habitat areas needed for the full life cycle of targeted species. Where feasible, restoration should be accomplished simultaneously with levee reinforcement; and where possible, restoration projects should emphasize water quality improvement. Restoration projects should also incorporate input from affected Delta landowners.

Because they would meet most of the above criteria, the following areas should be given priority:

- Cache Slough Complex
- Cosumnes River – Mokelumne River Confluence
- Cosumnes River ground water basin depletion
- Lower San Joaquin River Floodplain
- Suisun Marsh
- Yolo Bypass

Although the EWC has not quantified the total acreage that would qualify as priority parcels, our estimates would include the 50,000 acres of public lands in these areas, well below the more than 100,000 acres called for in the BDCP plan. That plan is impractical due to costs and the opposition it will engender among residents and landowners in the Delta. Any ultimate plan must involve residents of the Delta, something that has not been addressed to date.

Floodplains benefit the people and ecology of California in numerous ways. Floodplains are extremely productive ecosystems that support high levels of biodiversity and provide valuable ecosystem services.⁶⁰ The floodplain of a river is a relatively level area on both sides of the stream channel that carries excess waters during flood events. During a flood, the floodplain becomes an additional part of the stream, doing “extra work” for the stream channel. The floodplain allows flood waters to spread out, reducing the potential energy of serious or catastrophic floods. As a result, less damage occurs downstream. If the flood plain is not allowed to work properly and the channel is narrowed, dredged, or riprapped, the stream cannot handle flows adequately, and damage occurs. Channelization and dredging also have caused the disappearance of the river's healthy sandbars and islands.

Further, floodplains contain wetlands that slow and filter flood water, thus improving water quality. Wetlands also provide habitat for a diversity of wildlife. Other benefits of floodplains include flood attenuation, fisheries habitat, groundwater recharge, water filtration, and

⁶⁰ Postel, Sandra. Richter, Brian. 2003. Rivers for Life. Island Press. P 20-21. <http://islandpress.org/bookstore/details.php?sku=1-55963-444-8>.

recreation. Floodplains therefore are extremely productive ecosystems that support high levels of biodiversity and provide valuable ecosystem services. Bottom line: studies have shown that healthy floodplains have an extremely high monetary value due to these services.

To function properly, floodplains must, by definition, periodically flood. Floodplains store floodwaters that recharge groundwater supplies, maintain proper instream flows, prevent bed-bank scour, are a source of organic carbon, and support a healthy population of aquatic species essential to both ecosystems and our economy.⁶¹ Functional floodplains in California have been dramatically reduced from historical conditions because levees, dams, flood control projects, and development have reduced or eliminated connectivity between rivers and floodplains. To reverse these losses, numerous agencies and organizations have spent significant resources to restore floodplains while simultaneously minimizing future flood risk.

With climate change, we can expect less snowpack, quicker spring snow melts, and increased flood pressures. Connecting natural floodplains with our rivers and avoiding development in floodplains will become critical to community sustainability in the future.

The current restoration plans for the Yolo Bypass (including more frequent use) are encouraged as a part of this plan.

The following actions must be included with any planned floodplain restoration:

- Where possible, removing or setting back levees from riverbanks to allow floodwaters to expand into the floodplain.
- Where it is not possible to remove levees, they should be vegetated with native riparian flora to provide the maximum achievable ecosystem functions.
- Making the purchase of floodplains or flowage easements a top priority for flood control agencies; further, new levees should not be constructed in floodplains.
- Ensuring that low-income communities impacted by floodplain restoration are involved in the development of restoration plans, and that any impacts of restoration are fully mitigated.

Implementation of the above actions by EWC organizations will include:

- Continued advocacy for the habitat recovery actions of the EWC priority public lands in place of the more than 100,000 acres of undefined habitat called for in the BDCP EIR/EIS.

Funding. Costs might be approximately \$1.6 billion, based on half of the comparable restoration costs of the BDCP per 2010 documentation.⁶²

⁶¹ Sommer T.R., Nobriga M. L., Harrell B., Batham W., Kimmerer W. J. 2001. Floodplain rearing of juvenile chinook salmon: evidence of enhanced growth and survival. Canadian Journal of Fisheries and Aquatic Sciences. P. 325-333. http://iep.water.ca.gov/AES/Sommer_et_al_2001.pdf

⁶² Highlights of the BDCP, pamphlet published December 2010

ELIMINATE PAPER WATER, RETURN THE KERN WATER BANK TO STATE CONTROL, RESTORE THE ARTICLE 18 URBAN PREFERENCE, AND RESTORE THE ORIGINAL INTENT OF ARTICLE 21 SURPLUS WATER IN SWP CONTRACTS.

The Monterey Amendments changed major provisions of the original State Water Project, ultimately resulting in increased water exports from the Delta. This excessive pumping has adversely affected the ecological health and stability of the Delta, degrading water quality for the region's family farms and threatening commercial fisheries, sport fisheries and wildlife habitat. These changes were caused by four provisions: The elimination of Article 18a, also known as the "urban preference;" the elimination of Article 18b, the "paper water" safeguard; the change of orientation for Article 21, or "surplus water;" and the privatization of the Kern Water Bank.

To mitigate the damage caused by the Monterey Amendments, the following changes should be made; these adjustments will reduce reliance on the Delta, assure public trust protections for our most essential public resource, and provide greater water security for urban ratepayers.

- The "Paper Water" needs to be eliminated. The level of water exports for SWP Table A users are unrealistically high and must be brought in line with historic "firm yield" data, as required in the original contracts. The long-term water supply reductions forecasted with global climate change add to the urgency of bringing contracted amounts in line with current and future realities and eliminating this "Paper Water."
- The Kern Water Bank initially was a public asset. It underlies land purchased in the 1980s by the California Department of Water Resources (DWR) for the express purpose of creating a drought emergency water bank for the state's ratepayers. It was inappropriately transferred to private interests as a part of the Monterey Amendments. It must be returned to the ownership and operational control of DWR and managed per its original purpose: making water available to south of Delta urban water users during drought.
- The urban preference must be reinstated. California should return to its original doctrine of prioritizing water for rank-and-file ratepayers rather than corporate agriculture.
- The pumping of Article 21 (so-called surplus) water is both unnecessary for effective water policy and damaging to the fisheries and ecology of the Bay/Delta estuary. This is especially the case during dry years. Pumping of Article 21 water should *never* be permitted during drought.

The impacts of the additional capacity for Delta exports as provided by a public Kern Water Bank should be considered here. Given its location, size, and relative cost of development compared to surface storage, the Kern Water Bank is a facility that could greatly assist balanced export controls for the Delta and could be the single greatest improvement to overall state-wide water supply reliability. This plan strongly advocates for the return of the Kern Water Bank to state control as a water management measure.

Implementation of the above actions by EWC organizations will include:

- Eliminate paper water from SWP contracts and bring SWP contracts in line with firm yield.
- Continued legal actions to restore the Kern Water Bank as a public resource
- Restore the urban water preference
- Discontinue pumping Article 21 water

Funding. No cost estimates available.

REINFORCE CORE LEVEES ABOVE PL84-99 STANDARDS.

This plan accepts and supports the Delta Protection Commission's recommendation in their Economic Sustainability Plan to: "Improve many core Delta Levees beyond the PL 84-99 standard that addresses earthquake and sea-level rise risks, improve flood fighting and emergency response, and allow for vegetation on the water side of levees to improve habitat. Improvement of most core Delta levees to this higher standard would cost between \$2 to \$4 billion."⁶³

There is a plausible public interest in providing public funds to Delta reclamation districts and other Delta interests for levee upgrades, given that the Delta serves as the water conveyance facility for much of California. Water exporters should be required to identify which levees, if any, *they want to fund to a higher standard* (e.g., greater earthquake resistance) to protect their water supplies. Recommendations should also include assisting Delta counties and communities in meeting FEMA/NFIP programs. The plan should also contain a recommendation to support and increase public funding for permanent continuation of the existing and highly successful statutory cost-share formula and funding for the Delta (Subventions) Levee Program. Public safety and flood protection must remain the top priority of the State Plan of Flood Control, including its levees and bypasses. The levees should be vegetated with native species to aid stabilization and support endangered species.

Because earthquake risks to the levees are one of the main justifications for a trans-Delta canal or tunnel, and there is evidence that the earthquake risks to the Delta levees may have been exaggerated in previous drafts of the Economic Sustainability Plan, the comparison of costs of the two alternatives (\$2 to \$4 billion for levee strengthening versus \$15-\$16 billion for new conveyance) is significant; this should provide sufficient incentive to state officials to initiate this levee reinforcement program immediately, making catastrophic levee failure a questionable justification for any new conveyance.

Implementation of the above actions by EWC organizations will include:

- Advocacy with the SWRCB and the DWR for the implementation of core levee reinforcement as the top priority for levee improvements.

Funding would be in line with the Delta Protection Commission's Economic Sustainability Plan: between \$2 to \$4 billion.

⁶³ Draft Executive Summary, Economic Sustainability Plan for the Sacramento-San Joaquin River Delta, March 10, 2011
http://www.delta.ca.gov/res/docs/ESP_ESUM.pdf

INSTALL IMPROVED FISH SCREENS AT EXISTING DELTA PUMPS.

A recent report by Larry Walker Associates indicates that a 1996 report by DWR and DFG concluded that for every salmon salvaged at the fish protection facilities, more than three are lost to predators or through fish screens.⁶⁴ The same report also indicated that over a 15 year period (1979-1993), 110 million fish were salvaged at the SWP's Skinner Fish Facility. In 2000, the CALFED Record of Decision highlighted the need to improve the fish screens at the South Delta pumps. According to a more recent DFG report, more than 130 million fish have been salvaged at the State and Federal Project water export facilities in the South Delta between 2000 and 2011.⁶⁵ Actual losses, however, are far higher. For example, recent estimates indicate that 5-10 times more fish are lost than are salvaged, largely due to the high predation losses in and around water project facilities.⁶⁶ Additionally, the fish screens are unable to physically screen eggs and larval fish from the diversion pumps.⁶⁷ The losses of eggs and larval fish, as well as the enormous losses of zooplankton and phytoplankton that comprise the base of the aquatic food chain, go publically unacknowledged and uncounted.

As pointed out in the Walker Associates report, the fish protections at the South Delta pumps (including the fish screens and salvage facilities) remain largely unchanged since they were first engineered more than 40 years ago.⁶⁸ Currently only about 11-18% of salmon or steelhead entrained in Clifton Court Forebay survive. Based upon numerous studies by DFG, DWR and academic researchers, 75% of fish entering Clifton Court Forebay are lost to predation, 20-30% of survivors are lost at the salvage facility louvers, 1-12% of salvaged fish are lost during handling and trucking, and 12-32% are lost to post-release predation.⁶⁹ Losses of other species, such as Delta smelt or the egg and larval stages of pelagic species and salmon fry, are believed to be even higher. For example, some species (including Delta smelt) cannot survive salvage transport, and the losses approach 100%.

According to the draft *BDCP Effects Analysis' Summary of Effects of BDCP on Entrainment of Covered Fish Species*, South Delta export facilities could potentially increase entrainment of:

- Juvenile steelhead in dry and critical dry years,
- Juvenile winter-run Chinook salmon in above normal and below normal years,
- Juvenile fall-run Chinook salmon in all below normal and dry years and fall-run smolts in all years,
- Juvenile late fall-run Chinook salmon in dry and critical dry years,
- Juvenile longfin smelt in above normal, below normal, and dry years and adults in

⁶⁴ Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. <http://www.srscd.com/pdf/dd/fishlosses.pdf>. Page

⁶⁵ California Department of Fish and Game annual salvage reports for the State Water Project and Central Valley Project's fish facilities, 2000-2011.

⁶⁶ Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 2. <http://www.srscd.com/pdf/dd/fishlosses.pdf>

⁶⁷ DWR. Delta Risk Management Strategy, final Phase 2 Report, Risk Report, Section 15, Building Block 3.3: Install Fish Screens. June 2011. P. 15-18.

⁶⁸ Ibid, Larry Walker Associates,

⁶⁹ Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 2.

- critical dry years, and
- Juvenile Sacramento splittail in all years.⁷⁰

Because of flow requirements and biological constraints affecting diversions from the Sacramento River, exports from the South Delta pumps will constitute a significant percentage of total water exports under the BDCP. The BDCP currently stipulates that about 50% of State and Federal Project exports would come from the existing South Delta diversion facilities in average water years, and as much as 75-84% in dry and critical water years.⁷¹ In fact, BDCP modeling suggests that exports and fish entrainment from South Delta diversions could potentially increase in certain water year types and for critical life stages of certain species.⁷²

The *CALFED Bay-Delta Program Programmatic Record of Decision* and associated Biological Opinions required the construction of new state-of-the-art fish screens at existing South Delta export facilities in 2000.⁷³ A funding plan was to be completed by early 2003, facilities design completed by the middle of 2004, and operations and performance testing were to begin by the middle of 2006.⁷⁴ However, the explicit commitment to construct new screens was put on hold in 2003 after the State and Federal Project Contractors indicated that they would not pay for them. New South Delta screens are not included as part of the BDCP. As the BDCP will continue to rely on the South Delta pumps for a substantial percentage of project exports, new screens must be required to mitigate for project impacts.

DWR's *Delta Risk Management Strategy (DRMS) Phase 2 Report* found that the South Delta pumping facilities could be successfully screened by multiple in-canal vee-type screens of about 2,500 cfs capacity in each module. These new state-of-the-art South Delta screens, placed at the entrance to Clifton Court Forebay, would eliminate the existing 75% predation of fish species of concern in the Forebay and successfully protect fish longer than 25 mm in length.⁷⁵ While new screens would be expensive, still require transport of salvaged fish, not totally resolve debris removal issues, or eliminate all fish entrainment, they would dramatically reduce the appalling fish losses that occur at present.⁷⁶

Modernizing the fish screens at the South Delta facilities is an integral part of the EWC's Plan in order to reduce fish killing at the pumps. The South Delta pumps will continue as the

⁷⁰ ICF International. BDCP Effects Analysis, Entrainment, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. PP. B.7-2 – B.7-4.

⁷¹ NRDC. A Portfolio-Based BDCP Conceptual Alternative. February 2013. <http://switchboard.nrdc.org/blogs/bnelson/Portfolio%20Based%20BDCP%20Conceptual%20Alternative%201-16-13%20V2.pdf> ICF International. BDCP Effects Analysis, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. P. B.0-8. http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/BDCP_Effects_Analysis_-_Appendix_5_B_Entrainment_3-30-2012.sflb.ashx

⁷² ICF International. BDCP Effect Analysis, Appendix 5.B, Entrainment, Administrative Draft Bay Delta Conservation Plan. March 2012. PP. B.0-4 – B.0-11.

⁷³ CalFed. Programmatic Record of Decision. August 2000. P. 49. Including Attachment 6A, U.S. Fish and Wildlife, Programmatic Endangered Species Act Section 7 Biological Opinion, P. 36 and Attachment 6B, National Marine Fisheries Service, Programmatic Endangered Species Act Section 7 Biological Opinion, P. 27. <http://www.calwater.ca.gov/content/Documents/ROD.pdf>

⁷⁴ Larry Walker Associates. A Review of Delta Fish Population Losses from Pumping Operations in the Sacramento-San Joaquin River Delta. January 2010. P. 18.

⁷⁵ DWR. Delta Risk Management Strategy, final Phase 2 Report, Risk Report, Section 15, Building Block 3.3: Install Fish Screens. June 2011. P. 15-18. http://www.water.ca.gov/floodsafe/fessro/levees/drms/docs/DRMS_Phase2_Report_Section15.pdf

⁷⁶ Id. 15.5.2.1 Conclusion at PP. 15-19 & 15-20.

primary diversion facilities under this Plan.

While experience with the existing fish screens at the South Delta have yielded much data on effective future fish screen design, modernizing fish screening systems would also require hydraulic and physical modeling, dimensional testing of dynamic baffling systems, and consideration of future hydrologic conditions associated with climate change.

In keeping with original CALFED plans, the EWC supports the development and implementation of modernized fish screening systems, using the best available technology, at the South Delta facilities and at other existing in-Delta diversions. This would include installation of positive barrier fish screens on all diversions greater than 250 cfs in both the Sacramento and San Joaquin River Basins as well as a significant percentage of smaller and unscreened diversions in these ecosystems.

An alternative possibility is the use of non-physical barriers to deter fish from entering the intake zones of the South Delta pumps. Non-physical barriers include the use of the following methods: electrical barriers; strobe lights; acoustic fish deterrents; bubble currents; velocity barriers; chemical toxicants; pheromones; and magnetic fields. In view of the criticality of recovering fish populations through reduced mortality at the pumps, the feasibility of these types of non-physical barriers should not be overlooked. The Bureau of Reclamation has recorded some research results of the use of non-physical barriers.⁷⁷

Implementation of the above actions by EWC organizations will include:

- Advocacy with DWR and the CVP agencies for the construction of improved fish screens along the lines of the CALFED Record of Decision and the associated Biological Opinions.

Funding. Based on unpublished CALFED estimates, improved fish screen facilities at the Banks Pumps would cost than \$1 billion in 2007 dollars; the cost estimate for Tracy would be \$290 million.⁷⁸

⁷⁷ Bureau of Reclamation. Non-Physical Barrier (NPB) for Fish Protection Evaluation: Can an Inexpensive Barrier Be Effective for Threatened Fish? <http://www.usbr.gov/research/projects/detail.cfm?id=8740>

⁷⁸ http://www.water.ca.gov/floodmgmt/dsmo/sab/drmsp/docs/DRMS_Phase2_Report_Section15.pdf

CONDUCT FEASIBILITY STUDY FOR TULARE BASIN WATER STORAGE.

By allowing flows from the Kern, Kings, Kaweah, and Tule Rivers to egress at the Tulare basin, south-of- Delta users and the Metropolitan Water District could obtain their water from a revitalized Tulare Lake. This option is advocated by the San Joaquin Valley Leadership Forum, which has determined that surface storage capacity in the Tulare Lake Basin could be more than 2.5 million acre-feet.⁷⁹ The concept would require bi-directional conveyance with both the Kern Canal and the California Aqueduct.

The restoration of Tulare Lake in the San Joaquin Valley is a unique opportunity to provide large volumes of high-quality water for agricultural, economic and environmental uses on a regional and self-sufficient basis. At one time, Tulare Lake was the largest freshwater body west of the Mississippi River, storing up to 25 million acre feet. The proposal promoted by the San Joaquin Valley Leadership Forum is based upon sound technical, financial, and environmental analysis that is far superior to the only other storage proposal currently under study within the San Joaquin Valley: Temperance Flat reservoir on the Upper San Joaquin River above Millerton Lake/Friant Dam. As an example, the restoration of just 10% of the historic Tulare Lake would provide nearly twice the surface storage capacity of Temperance Flat. Further, the Tulare Lake basin plan provides ancillary ground water storage capabilities, and Temperance Flat does not. Also, the Tulare Lake basin can accommodate flood waters from five south Sierra river systems – the Kings, Kaweah, Tule, Kern and the upper San Joaquin. Temperance Flat would only mitigate flood waters from the upper San Joaquin River.

There is a possibility that ground contaminants in the basin may exist at harmful levels. A feasibility study is required to examine this potential issue closely. California does not need more impaired lands similar to those that exist on the west side of the San Joaquin.

Implementation of the above actions by EWC organizations will include:

- Advocacy to require the SWP and the CVP project to evaluate the concept of restoring the Tulare Lake basin.

Funding. The preliminary concept described by the San Joaquin Valley Leadership Forum is estimated to cost \$800 million. The beneficiaries would be South San Joaquin and Southern California water districts; they would be required to fund this alternative.

⁷⁹ San Joaquin Valley Leadership Forum, www.sjwlf.org

PROVIDE FISH PASSAGE ABOVE AND BELOW CENTRAL VALLEY RIM DAMS FOR SPECIES OF CONCERN.

Dams have made California a well-watered paradise for most of its human inhabitants -- but dams also kill river habitats. Although California's vast system of water storage, hydropower and flood control dams has provided enormous economic benefits, it is not without downsides. Dams have been a major factor - in many cases *the* major factor - in the decline and extinction of numerous fish species, especially anadromous fishes that migrate to and from the ocean and must have access to the more favorable upper reaches of rivers to spawn and rear ensuing generations⁸⁰. Every salmon and steelhead run in our Central Valley rivers is either extinct, endangered, or in decline due to the overall habitat destruction and degradation caused by dams.⁸¹ A 1985 California Department of Fish and Game study indicated that the economic losses due to the declines of salmon, steelhead and striped bass that once spawned in Central Valley tributaries at \$116,000,000 per year in 1985 dollars.⁸²

The most serious fishery problem caused by major dams is the blockage of migratory fish passage. Over 95 percent of the historic salmon and steelhead spawning habitat in Central Valley river systems has been eliminated by the construction of large dams on every major river. Fish passage was not a serious consideration in the early part of the last century when most of the major dams were built; there were no Endangered Species Act or National Environmental Policy Act considerations at the time. California Fish and Game Code Section 5937, which mandates that dam operators keep fish in good condition below dams, has been largely ignored outside the Mono Basin. The construction of Friant Dam on the San Joaquin River resulted in the extinction of the largest spring-run Chinook population in the state. The dam blocked upstream spawning grounds, the best of any Central Valley river. Figure 3 shows the long-term downward trend for Chinook salmon in the Central Valley. It is obvious that unless we can get salmonids above major dams to spawn in their native habitats, they are doomed to extinction, regardless of any restorative measures taken below the dams (including hatcheries).

Numerous solutions are available to provide fish passage around dams. They include construction of fish ladders or upstream fish channels, fish elevators, trap and truck operations, downstream bypasses, removal of smaller fish barriers, and dam removal. All these techniques have been used at multiple locations with varying success. Some of the larger dams on the Columbia River system have been operating fish ladders for many years. While the costs of many of the techniques are substantial, the economics of industries and recreational activities that depend on healthy rivers and fish stocks justify the investment. The appropriate comparison by which to measure such costs is the sum of agricultural, industrial, and municipal benefits that accrue via the diversion of tens of millions of acre-feet of water annually. At more than \$96

⁸⁰ National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project.

660.http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

⁸¹ Friends of the River. 1999. Rivers Reborn: Removing Dams and Restoring Rivers. P 4-

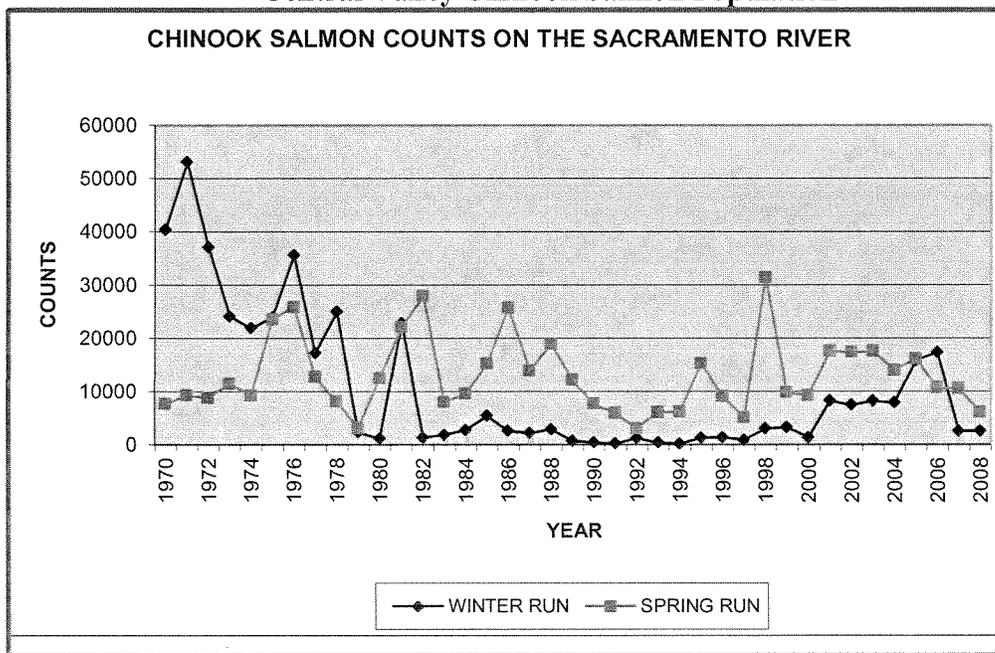
16.<http://www.friendsoftheriver.org/site/DocServer/RiversReborn.pdf?docID=224&AddInterest=1004>.

⁸² California Department of Fish and Game. 1985. Administrative Report 85-03.
http://deltavision.ca.gov/docs/externalvisions/EV8_Allied_Fishing_Group_Vision.pdf

billion annually, tourism and recreation now constitute California’s largest industry; river recreation is a large part of this sector. Recreational fishing generates \$1.5 billion annually in retail sales and provides thousands of jobs.⁸³

Fish passage above the dams would also provide Native American tribes essential access to historic cultural resources. Native beneficiaries would include the Winnemen Wintu on the Upper Sacramento, McCloud, and Pit Rivers; the Karuk on the Klamath; and the California Valley Miwok and Maidu on the American and Feather Rivers.

**Figure 3
Central Valley Chinook Salmon Population⁸⁴**



This plan supports the National Marine Fisheries Service Biological Opinion on CVP and SWP operations. The opinion recommends fish passage pilot programs and analyses for dams connected to the Delta (e.g., the Sacramento, American and Stanislaus rivers), and encourages the State Water Board to direct the controlling agency of each Delta-connected Central Valley rim dam to consider the feasibility of fish passage for every facility that blocks the passage of listed salmonid species.⁸⁵ Costs should be borne by the dam operators, given they are the main beneficiaries of the water storage operations.

⁸³ Restore the Delta. April 7, 2009. Press Release. <http://archive.constantcontact.com/fs062/1102037578231/archive/1102546423830.html>.

⁸⁴ California Department of Fish & Game, Native Anadromous Fish & Watershed Branch. GRANDTAB Data Sets. <http://www.calfish.org/IndependentDatasets/CDFGFisheriesBranch/tabid/157/Default.aspx>

⁸⁵ National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf

Implementation of the above actions by EWC organizations will include:

- Coordination with DWR, DFW, and federal agencies on the option of providing fish passage for major dams connected to the Delta.

Funding. No estimates available.

RETAIN COLD WATER FOR FISH IN RESERVOIRS.

Salmon, steelhead, and trout need cold water to exist. As California has grown in size, the dams that have been built on virtually every major river have significantly changed both upstream and downstream river flows; high downstream water temperatures are one of the negative results. Temperatures of 57-67 degrees Fahrenheit (F) are typically ideal for upstream fish migration and 42-56 degrees (F) are ideal for spawning. Water temperatures over 70 degrees (F) can be lethal to anadromous fish, but are common on major rivers in the summer. Some fish populations have been able to adapt and carry on spawning and rearing below these major barriers, though in much smaller numbers than previously occurred. Because farms need the most water in the summer, water behind reservoirs is low by the fall, when many of the remaining populations of migrating fish return to the rivers. At that point, the lack of cold water is a clear threat to their survival. Many of these fish species are now listed under the federal Endangered Species Act (ESA), and maintaining water temperatures suitable for survival has become a critical part of the actions required under the ESA.

This plan supports, as a conservation measure, the NMFS Biological Opinion recommendations for cold water releases on rivers connected to the Delta, such as the Sacramento, American, and Stanislaus rivers,⁸⁶ as well as supporting regulations and legislation to retain sufficient water in other major reservoirs to support fish populations in Delta-connected rivers below dams. The latter would include the Trinity River, so long as compliance is maintained with the current management plan protections for the Trinity system.

Implementation of the above actions by EWC organizations will include:

- Advocacy for cold water releases with the SWRCB in accordance with NMFS Biological Opinions.

Funding. No estimates available.

⁸⁶ National Marine Fisheries Service, Southwest Region. June 4, 2009. Biological Opinion And Conference Opinion On The Long-Term Operations Of The Central Valley Project And State Water Project. Pages 590-620. http://swr.ucsd.edu/ocap/NMFS_Biological_and_Conference_Opinion_on_the_Long-Term_Operations_of_the_CVP_and_SWP.pdf.

PROVIDE PUBLIC TRUST PROTECTIONS AND THOROUGH ECONOMIC AND SOCIOLOGICAL ANALYSES OF REASONABLE ALTERNATIVES TO VARIOUS EXPORT LEVELS

The California Supreme Court, in the Mono Lake decision, explicitly set forth the state's "...affirmative duty to take the public trust into account in the planning and allocation of water resources and to protect public trust uses whenever feasible." Planning and allocation of limited and oversubscribed waterways imply analysis and balancing of competing demands. So far, we find little effort to balance the public trust obligations and competing demands within current planning processes, especially BDCP.

One of the significant flaws of previous and unsuccessful Bay-Delta proceedings has been the absence of a comprehensive economic evaluation of the benefits of protecting the estuary and in-Delta beneficial uses compared to the benefits of diverting and exporting water from the estuary. This absence has deprived decision makers and the public of critical information fundamental to reaching informed and difficult decisions on balancing competing demands.

Beyond protecting California's common property right in public trust waterways and fish, the balancing of limited water supplies must address the relative economic value of competing interests. For example, what is the societal value in providing Kern County, comprising a fraction of one percent of the state's population and economy, the same quantity of Delta water as the South Coast, with half the state's population and economy? What is the value to society of using public subsidies to irrigate impaired lands to benefit some 600 landowners, and that, by the nature of being irrigated, discharge harmful quantities of toxic waste that impairs other beneficial uses? What is the economic value of using twice the amount of water to irrigate an orchard in the desert than is required elsewhere? What are the costs and benefits of reclamation, reuse, conservation, and development of local sources? The preceding are only examples of the difficult questions that must be addressed in any allocation of limited resources and balancing of the public trust. As discussed in Sandra Postel's *Rivers for Life*,⁸⁷ water policy that incorporates the fundamental understanding that ecological health serves the common good presents a direct challenge to conventional modes of water governance. Economic analysis is crucial to providing the insight and guidance that will enable the Delta plan to meet its mandate. Without such analysis, we do not believe a Delta plan can successfully or legally comply with its legislative and constitutional obligations. An excellent description of the public trust type of issues caused by the current operations in the Delta and Estuary are contained in the Bay Institute report "Collateral Damage."⁸⁸

⁸⁷ Postel, S and Richter, B. *Rivers for Life*. Island Press, 2003. P 182.

⁸⁸ The Bay Institute. *Collateral Damage*. March 2012. <http://www.bay.org/publications/collateral-damage>

Implementation of the above actions by EWC organizations will include:

- Continue the ongoing advocacy with the SWRCB to balance public trust and sociological values against the value of water exports.

Funding. The balancing of the public trust values will depend on the results of the State Water Resources Control Board hearings on Delta flows and Delta water quality.

HEALTHY HEADWATERS AND MEADOWS RESTORATION

As a result of the continuing impacts of drought on California, numerous organizations are highlighting the issues and benefits of healthy headwaters and meadows on our water supplies. Even the Association of California Water Agencies (ACWA) has joined with the Nature Conservancy and the Sierra Nevada Conservancy in emphasizing the importance of headwaters in water management. There is a clear recognition among organizations involved in water policies that we can and should do more to effectively manage our headwaters areas for multiple benefits, including healthy water supply, improved water quality and healthy ecosystems. Headwaters in California include watersheds in the northern Sierra, the Cascades, and parts of Central and Southern California mountain regions.

The combination of persistent drought and the effects of higher temperatures associated with climate change have already produced bigger and more destructive Sierra wildfires, magnifying the adverse effects on fish, wildlife habitat, and water supply. Investments in ecologically sound forest management can be cost effective for California. In addition to the quantified benefits of well-functioning watersheds, effective headwater management can also result in significant avoided costs, such as lessened fire and flood damage, erosion and sediment loss reduction, water quality maintenance, reduced illnesses and treatment costs, and control of agricultural pests.

To quote from the recent ACWA report, *Improving the Resiliency of California's Headwaters – A Framework*,⁸⁹ “The numbers from the 2014 fire season alone are sobering. More than 400,000 acres of state and federal lands burned, destroying homes, devastating watersheds, displacing residents and costing the state and federal government hundreds of millions of dollars. In 2013, the massive Rim Fire threatened San Francisco’s main water supply source (Hetch Hetchy) and shattered records for the largest wildfire ever in the Sierra Nevada. Statistics suggest that wildfires are growing in size and intensity, and are becoming harder to extinguish. As drought conditions stretch into a fourth year, there is little reason to expect this pattern to improve.”

Improved headwater and meadow management can provide a myriad of benefits, including improvements in the amount of naturally occurring water supply and protection of existing water supplies, increases in the natural water storage and percolation, improvements in the quality of water runoff from reductions in silt deposition and ash, protection of the fish and wildlife that inhabit our headwaters and upstream locations, improved availability of recreation areas for the public, reduced damage and reduced monetary loss to public and private property in headwaters areas, protecting the scenic values of our headwater habitats, and reduction of the amount of carbon dioxide in the atmosphere.

To estimate the costs of improving headwater management, we can borrow a page from the CALFED Watershed Program which estimated the approximate external costs to fully implement the watershed management strategy, an analysis developed by the CALFED Watershed Program was used. This analysis examined areas where communities have chosen to

⁸⁹ <http://www.acwa.com/news/press-release/drought-deepens-groups-call-heightened-focus-healthy-headwaters>

provide quantifiable financial support for watershed management, thus demonstrating “a willingness to pay” for the services provided by a well-managed watershed. The costs ranged from \$480 million to \$3,586 billion from the period 2004 to 2030 according to estimates from the California Water Plan 2005 and CALFED program estimates.⁹⁰ It should be pointed out that it is likely that significant portions of these costs are not an added cost, but existing expenditures applied differently. For instance, permits and stream alteration agreements issued by watershed boundary instead of jurisdictional boundary could result in considerable added benefit and positive effect without adding to the real cost of implementation. Also, land use planning done on the basis of watershed impact may yield higher beneficial results without increasing costs.

Analysis by two Wesleyan University Professors has shown clear cost benefit analysis by removing the bulk of small “trash trees” in forests, resulting in savings of water to a value of \$1,500 for an investment of \$1,000 per acre. In addition to the water savings, there are additional benefits of reducing fire risks, cutting carbon emissions, increasing water runoff to streams, and boosting job growth in poor regions.⁹¹

Although costly, the benefits from fire suppression, water quantity, and water quality provide a favorable return on the investment.

Implementation of the above actions by EWC organizations will include advocacy for:

- Forest thinning in order to preclude high intensity fires from moving easily across a landscape. Current research has shown that “the potential economic benefits from forest thinning, largely from the potential for increased hydropower production, are real, and in some cases may be sufficient to fully offset the cost of thinning in select watersheds.”⁹²
- Support the implementation of catastrophic wildfire reduction projects across the Sierra Cascade ranges, including the conservation and enhancement of summer base flows in forested streams, meadows, wetlands, and springs.
- Support the further documentation of the significant groundwater storage potential and surface water dry year supply benefits of catastrophic wildfire reduction and ecology enhancement projects implemented in forested watersheds that drain to existing surface storage facilities and to important water supply groundwater sources in the Delta watershed.
- Headwater and meadow management plans should be incorporated in local Integrated Regional Water Management Plans (IRWMP).
 - Collaboration with US Forest Service, Bureau of Reclamation, California Fish and Wildlife and other responsible agencies should be an integral part of an IRWMP.

⁹⁰ California State Water Plan. Bulletin 160-2005

⁹¹ The Forestry Source. Commentary by James G. Workman and Helen M. Poulos. August 2013.

⁹² <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/california/forest-restoration-northern-sierras.pdf>

Funding. Department of Water Resources should coordinate the obtaining of up to \$4 billion over the next 5 years to fund statewide headwater and meadow management. Funding sources include Proposition 1 bond money, unused previous bond funding for ecological restoration, recent federal drought funding, and future bonds for headwater and watershed management.

FUND AGENCIES WITH USER FEES.

Agencies that benefit from any new or existing conveyance facilities should pay the full cost of the facilities, including mitigation costs.

Costs of fixing existing and planned Bay/Delta estuary-associated water delivery systems, including related costs of environmental mitigation and restoration, should be financed by the agencies that deliver water; these costs ultimately would be passed along to their retail customers.

Cost responsibilities for land acquisition and restoration of river and Delta floodplains should be distributed on a 75 percent pro rata basis through a broad-based water use fee (applied to all agencies whose supplies are diverted from a river or the Delta watershed); 25 percent of such projects would be supported by public funds.

Agencies that divert water from the Delta should pay their fair share of maintaining and replacing the Delta levees essential to their operations and the protection of water conveyance facilities. The share of Delta levee repair costs assigned to these agencies should reflect the extent to which the levee repairs are essential for ensuring uninterrupted diversions.

In developing funding sources, special care should be taken to ensure low-income communities are not burdened by new fees; also, appropriate set-asides should be created to allow these communities access to the funds needed to comply with new regulations and policies.

Implementation of the above actions by EWC organizations will include:

- Advocacy with state and federal agencies to promote the described funding mechanisms

Funding. No estimates available

IN CONCLUSION

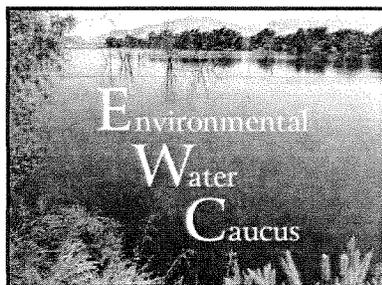
California is at a tipping point in the evolution of our water usage. Faced with an ongoing drought of historic significance and accelerating global climate change, the natural limits of our water supply have become increasingly obvious. At the same time, the economic inequities of our current water policies have become too onerous to bear. Policy makers must recognize this. They cannot continue to advocate for multi-billion dollar bonds that saddle Californians with decades of crushing taxes for unnecessary infrastructure. The emphasis must be on water conservation and demand reduction actions. Nor should our representatives push for monumental changes to our rivers and bays in the guise of restoring our ecosystems – when the real purpose is continued delivery of subsidized water to corporate agriculture. The catastrophic results of decades of such mismanagement are now in full view. It is clear that better solutions are available. We must embrace them.

Unless we manage our water more efficiently and account for ongoing global climate change, the costs of water will exceed our ability to provide this most critical of public resources to the commonweal.

The solutions proposed in this report are demonstrably more efficient and economical than more dams and canals. The combination of water efficiency planning and reduced reliance on the Delta obviate the need for increased surface storage and increased conveyance through the Delta. We have shown that the EWC strategy will provide California with the largest possible supply of water. Moreover, it will be a *sustainable* supply, one that will provide future generations with adequate water for a growing population, agricultural and industrial growth, thriving fish and wildlife, while providing for drought protections.

THE EWC CONSISTS OF THE FOLLOWING MEMBER ORGANIZATIONS:

AquAlliance	Friends of the River
Butte Environmental Council	Karuk Tribe
California Coastkeeper Alliance	Klamath Riverkeeper
California Save Our Streams Council	North Coast Stream Flow Coalition
California Sportfishing Protection Alliance	Northern California Council Federation of Fly Fishers
California Striped Bass Association	Pacific Coast Federation of Fishermen's Associations
California Water Impact Network	Planning and Conservation League
California Water Research Associates	Restore the Delta
Center for Biological Diversity	Sacramento River Preservation Trust
Citizens Water Watch	San Mateo County Democracy for America
Clean Water Action	Save the American River Association
Desal Response Group	Save the Bay Association
Earth Law Center	Sierra Club California
Environmental Justice Coalition for Water	Sierra Nevada Alliance
Environmental Protection Information Center	Southern California Watershed Alliance
Environmental Working Group	The Bay Institute
Food & Water Watch	Winnemen Wintu Tribe
Foothill Conservancy	



THE EWC SUSTAINABLE WATER PLAN FOR CALIFORNIA
APRIL 2015

From: Bob Wright <BWright@friendsoftheriver.org>
Sent: Wednesday, July 22, 2015 9:11 AM
To: BDCPcomments
Subject: FW: Comment letter on RDEIR/SDEIS
Attachments: 7 22 15 BDCP alts ltr pdf.pdf; 5 8 15 EWC Sustainable Wat Plan.pdf

Dear BDCPComments@icfi.com:

In my earlier transmittal of our BDCP/California Water Fix REDIR/SDEIS comment letter this morning, I forgot to attach the EWC "A Sustainable Water Plan for California (May 2015)" which was supposed to be attached pursuant to fn. 4 of page 6 of our letter. So, here is the letter again, this time with the referred to Plan also attached.

Sincerely,

Bob Wright
Senior Counsel
Friends of the River
Sacramento, CA
(916) 442-3155 x207

From: Bob Wright
Sent: Wednesday, July 22, 2015 8:19 AM
To: BDCPComments@icfi.com
Subject: Comment letter on RDEIR/SDEIS

Dear BDCPComments@icfi.com:

The attached letter is a comment letter from us on the BDCP REDIR/SDEIS. Please reply confirming receipt of our comment letter.

Sincerely,

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LEGAL RESEARCH ON NATURE IN CITIES
AND THE NATURE OF CITIES

July 21, 2015

Via United States Mail and Electronic Mail

BDCP/California WaterFix
Comments
P.O. Box 1919
Sacramento, California 95812
BDCPComments@icfi.com

**Re: Comments of Center on Urban Environmental Law (CUEL)
Golden Gate University School of Law on 2015 Recirculated Draft
Environmental Impact Report/Supplemental Draft Environmental
Impact Statement (2015 RDEIR/SDEIS) for the Bay Delta Conservation
Plan/California WaterFix (BDCP/WaterFix)**

Dear California Department of Water Resources:

For purposes of compliance with the requirements of the California Environmental Quality Act (CEQA), the California Department of Water Resources (DWR) is serving as the lead agency in regard to the 2015 RDEIR/SDEIS for the BDCP/WaterFix.

Attached as Exhibit 1 to this letter is a recent article that examines aspects of the CEQA analysis set forth in the previous 2013 DEIR/DEIS for the BDCP. This article, titled *Sea Level Rise, Saltwater Intrusion and Endangered Fisheries – Shifting Baselines for the Bay Delta Conservation Plan*, was published in June 2015 in ENVIRONS, the environmental law journal of the University of California at Davis School of Law. The focus of the attached article is on the relationship between the CEQA analysis of climate change and fisheries in the 2013 DEIR/DEIS, the United States Fish and Wildlife Service (USFWS) 2008 Biological Opinion for the delta smelt, and the California Supreme Court’s 2013 decision on CEQA baselines in Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (Smart Rail).

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For the three reasons noted below, the attached article's analysis of CEQA compliance issues related to the 2013 DEIR/DEIS for the BDCP remains pertinent to CEQA compliance issues pertaining to the 2015 RDEIR/SDEIS for the BDCP/WaterFix.

First, as with the 2013 DEIR/DEIS, the exclusive CEQA baseline for the 2015 RDEIR/SDEIS remains existing conditions at the time the CEQA Notice of Preparation (NOP) was prepared. This is confirmed on Page 11-94 of the 2015 RDEIR/SDEIS (in Chapter 11 on "Fish and Aquatic Resources") which explains: "The baseline for the CEQA analysis is Existing Conditions at the time the NOP was prepared." The same page then goes on to acknowledge how the exclusive reliance on an existing conditions CEQA baseline in the case of the BDCP/WaterFix can impair assessment of the actual impacts of the proposed project: "Because the action alternative modeling does **not** partition the effects of implementation of the alternative from the effects of sea level rise, climate change and future water demands, the comparison to Existing Conditions may **not** offer a clear understanding of the impact of the alternative on the environment." (bold added.)

As discussed in the attached article, the 2015 RDEIR/SDEIS's exclusive reliance on existing conditions in the CEQA analysis does not appear to be supported by the California Supreme Court's 2013 Smart Rail decision, which endorsed the use of "multiple" baselines when there is substantial evidence of how the background conditions against which a project operates will change in the future.

Second, Appendix 3D (titled "Defining Existing Conditions") of the 2015 RDEIR/SDEIS confirms that the X2 conditions set forth in the USFWS 2008 Biological Opinion for the delta smelt were not accounted for in the baseline used for CEQA Analysis. Page 3D-5 of the 2015 RDEIR/SDEIS states: "[T]he NMFS BiOp and the USFWS BiOp identify facilities or changes in operations that would require further study and subsequent implementation, including actions that are projected for completion prior to completion of the BDCP EIR/EIS. These future actions would require further engineering, environmental, and institutional evaluation and documentation; and therefore, are **not** included in the Existing Conditions assumptions...It is recognized that it is the intent of the SWP and the CVP to comply with the NMFS BiOp and the USFWS BiOp, although, the specific actions for new

facilities have not been identified or evaluated at this time and therefore are **too speculative** in nature to be included in the analysis.” (bold added.)

As discussed in the attached article, 2008 USFWS Bi-Op (for the delta smelt) requires that the SWP and CVP be operated to allow sufficient instream freshwater flow so that the X2 salinity level is maintained 74-81 kilometers east of the Golden Gate Bridge. Contrary to the discussion on page 3D-5 of Appendix 3D of the 2015 RDEIR/SDEIS, there is nothing speculative about the X2 requirement in the 2008 USFWS Bi-Op nor is any further study or environmental evaluation required to establish this X2 requirement – what X2 is and the location where X2 needs to be maintained are set forth clearly in the 2008 USFWS Bi-Op. From a CEQA compliance standpoint, it therefore does not appear that there is support for the rationale provided for excluding the 2008 USFWS BiOp’s X2 requirement as part of the background conditions against which the BDCP/WaterFix will operate.

Third, the 2015 RDEIR/SDEIS for the BDCP/WaterFix did not make any changes to Appendix 29A of the 2013 DEIR/DEIS for the BDCP (which was titled “Effects of Sea Level Rise on Delta Tidal Flows and Salinity”). The attached article’s analysis of Appendix 29A, and its implications for CEQA compliance, therefore remains intact as applied to the 2015 RDEIR/SDEIS for the BDCP/WaterFix.

Thank you for your consideration of these comments. CUEL respectfully asks that that this letter and the attached article be included in the administrative record for CEQA and NEPA review of the proposed BDCP/WaterFix.

Yours,



Paul Stanton Kibel
Professor of Water Law
Director, GGU Center on Urban Environmental Law

Attachment: Exhibit 1 – Paul Stanton Kibel, *Sea Level Rise, Saltwater Intrusion and Endangered Fisheries – Shifting Baselines for the Bay Delta Conservation Plan* (ENVIRONS 2015)

RECIRC99

Exhibit 1

Sea Level Rise, Saltwater Intrusion and Endangered Fisheries – Shifting Baselines for the Bay Delta Conservation Plan

*Paul Stanton Kibel**

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I. WHEN IS A FUTURE BASELINE REQUIRED?

UC Davis School of Law’s March 2015 symposium on *The Future of CEQA*, out of which this article evolved, focused on how the substantive law governing the operation of the California Environmental Quality Act might change in the coming decades. In my presentation for the symposium’s final panel, I suggested that certain changes in CEQA substantive law may well be driven by the increasing recognition that the background conditions against which projects will operate will themselves change significantly in the future.

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The basic environmental impact assessment paradigm, under the federal National Environmental Policy Act (NEPA)¹ and state laws such as the California Environmental Quality Act (CEQA)², is as follows: set forth an accurate project description³, describe baseline environmental conditions at the time the project is being considered for approval⁴, assess the impacts of the proposed project on baseline environmental conditions⁵, and then present a reasonable range of alternatives and feasible mitigation to reduce the significant adverse impacts of the project on baseline environmental conditions.⁶ The critical temporal assumption to this basic environmental impact assessment paradigm is that appropriate alternatives and mitigation will be determined in reference to a set of baseline environmental conditions at a fixed point in time when the environmental impact assessment document is being prepared.

At the time NEPA and CEQA were adopted, around 1970, this temporal assumption made sense. In 1970, it was perhaps difficult to envision a situation where a lead agency could credibly predict future changes in background conditions that would occur independent of the project being considered or similar nearby proposed projects. Grounding environmental impact assessment on a comparison of project impacts against existing conditions was a logical approach.

The effects of climate change, however, present a challenge to the viability of this basic environmental impact assessment paradigm, particularly for projects that will operate many decades into the future.⁷ With climate change, the background environmental conditions against which long-term projects operate will change: air and water temperatures will be higher, the snowpack will be smaller, sea levels will rise. As these background environmental conditions shift during the project's operation, the project's impacts on the environment will also change and may become more severe. Yet, if the environmental impact assessment remains tethered to the baseline conditions when the environmental impact assessment was prepared, and disregards the ways such baseline conditions will shift as a result of climate change, the assessment will fail to identify the true impacts of the project during its anticipated lifetime. Thus, effective alternatives and mitigation to address these true impacts will not be considered or incorporated into the project.

In 2013, the California Supreme Court issued a landmark CEQA holding that

¹ 42 U.S.C. §§ 4321-4347.

² CAL. PUB. RES. CODE §§ 21000-21189.3.

³ MICHAEL REMY, TINA THOMAS, JAMES MOOSE & WHITMAN MANLEY, GUIDE TO CEQA/CALIFORNIA ENVIRONMENTAL QUALITY ACT 414-432 (11th ed. 2007).

⁴ *Id.* at 433-439.

⁵ *Id.* at 439-455.

⁶ *Id.* at 455-58, 458-65.

⁷ See generally Paul Stanton Kibel, *A Salmon Eye Lens on Climate Adaptation*, 19 OCEAN & COASTAL L.J. 65 (2013).

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authorized state and local agencies in California to depart from the basic environmental impact assessment paradigm to more effectively address changes in baseline conditions that are expected to occur during the lifetime of a proposed project.⁸ In its decision in *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority (Smart Rail)*, the Court reviewed an environmental impact report (“EIR”) for a Los Angeles urban light rail project which considered air quality and traffic impacts against a future environmental baseline that included anticipated population increases in the vicinity of the project.⁹ The use of this future baseline had been affirmed by the California Court of Appeal, which held: “[t]he important point, in our view, is the reliability of the projections and the inevitability of the changes on which those projections are based. . . Population growth, with its concomitant effects on traffic and air quality, is not hypothetical in Los Angeles County; it is inevitable.”¹⁰

On review, the issue was presented to the California Supreme Court in *Smart Rail* as an “either/or” question: when is it appropriate to use a future baseline for CEQA analysis instead of, in lieu of, an existing conditions baseline? A key aspect of the Court’s 2013 *Smart Rail* decision was its rejection of this proposed “either/or” framework for evaluating the relationship between existing and future baselines.¹¹ Instead, the Court focused on the appropriate use of “multiple” baselines in CEQA documents.¹²

That is, in *Smart Rail*, the Court held that it is permissible for a lead agency to use a future baseline when there are inevitable changes in the environmental setting that will occur during the duration of the project.¹³ But, and this is a very important but, the Court made clear that while there may be situations where it is permissible or even advisable for a lead CEQA agency to use a future baseline in its environmental impact analysis, this does not mean that the lead agency is generally allowed to forgo analysis of the project’s impact as compared to existing conditions.¹⁴

As the Court explained in *Smart Rail*, “nothing in CEQA law precludes an agency. . . from considering both types of baselines – existing and future conditions – in its primary analysis of the project’s significant adverse impact.”¹⁵ The California Supreme Court then further elaborated:

⁸ *Neighbors for Smart Rail v. Exposition Metro Line Construct. Auth.*, 57 Cal. 4th 439 (2013).

⁹ *Id.* at 445.

¹⁰ *Neighbors for Smart Rail v. Exposition Metro Line Construct. Auth.*, 141 Cal. Rptr. 3d 1, 17-19 (Cal. Ct. App. 2012).

¹¹ *Smart Rail*, 57 Cal. 4th at 452-457.

¹² *Id.* at 449-456.

¹³ *Id.* at 453.

¹⁴ *Id.* at 454-456.

¹⁵ *Id.* at 454.

Even when a project is intended and expected to improve conditions in the long term – 20 or 30 years after an EIR is prepared – decision makers and members of the public are entitled under CEQA to know the short- and medium-term environmental costs of achieving that desirable improvement. . . . Though we might rationally choose to endure short- or medium-term hardship for a long-term, permanent benefit, deciding to make that tradeoff requires some knowledge about the severity and duration of the near-term hardship. An EIR stating that in 20 or 30 years the project will improve the environment, but neglecting, without justification, to provide any evaluation of the project's impacts in the meantime, does not give due consideration of both the short-term and long-term effects of the project.¹⁶

The Court cautioned that allowing CEQA lead agencies to ignore near-term effects on existing conditions “would sanction the unwarranted omission of information on years or decades of a project’s environmental impacts and open the door to gamesmanship in the choice of baselines.”¹⁷

From this holding, we understand that the Court’s multiple baselines approach is grounded in CEQA’s requirement that both short-term and long-term project impacts must be evaluated. Otherwise, if a CEQA lead agency were allowed only to focus on a distant point in time in the future with changed baseline conditions, it would be allowed to bypass analysis of the more immediate effects of the project on existing conditions.¹⁸ With *Smart Rail*, it is now generally permissible for a lead CEQA agency to employ a future baseline in addition to an existing baseline. The anticipated and inevitable shifts in environmental conditions (e.g. rising temperatures, snowpack reduction, sea level rise) resulting from climate change, due to their inevitable nature, appear to fall within *Smart Rail’s* bounds of when the use of such where multiple baselines would be permissible.¹⁹

The question left open by *Smart Rail* is whether there are situations where CEQA not only *permits* the use of a future baseline but *requires* it. Although in one sense this is a CEQA-specific question, the answer to this question may also have implications for how climate change is addressed under NEPA and other non-California state environmental impact assessment laws. As such, these other jurisdictions may look to California’s answer and approach as guidance and persuasive precedent.

This article suggests that this open question may soon be addressed in

¹⁶ *Id.* at 455.

¹⁷ *Id.* at 456.

¹⁸ The CEQA obligation to assess both short-term and long-term impacts is set forth in the CEQA Guidelines. See CAL. CODE REGS., tit. 14, § 15126.2 (West 2015).

¹⁹ THE LAW OF ADAPTATION TO CLIMATE CHANGE: U.S. AND INTERNATIONAL ASPECTS 5-6, 95, 109-11 (Michael B. Gerrard and Katrina Fischer Kuh eds., 2012).

subsequent litigation challenging the CEQA climate change analysis for the Bay Delta Conservation Plan (“BDCP”), a fishery restoration-water supply project proposed in California.²⁰ To understand the relevant CEQA climate change issues related to the BDCP, our starting point is the 2008 Biological Opinion issued by the United States Fish & Wildlife Service for the delta smelt, a fish species protected under the federal Endangered Species Act.²¹

II. NEXUS BETWEEN X2 AND DELTA FISHERIES – 2008 USFWS BIOLOGICAL OPINION FOR THE DELTA SMELT

In 2008, pursuant to the Endangered Species Act (“ESA”), the United States Fish & Wildlife Service (“USFWS”) issued its biological opinion (“Bi-Op”) for the delta smelt in connection with the proposed “coordinated operations” of the federal Central Valley Project (“CVP”) and California’s State Water Project (“SWP”).²² The CVP and SWP, which deliver water to agricultural and urban water users throughout the state, both divert significant amounts of water from and upstream of the Delta where the fresh water of the Sacramento and San Joaquin Rivers flow into San Francisco Bay (hereinafter the “Delta” or “Bay Delta”).²³ In this 2008 Bi-Op, the USFWS determined that it could not issue an incidental take permit for the proposed CVP-SWP coordinated operations unless these operations ensured adequate fresh water flows into the Delta.²⁴ According to the USFWS, adequate fresh water flows would be met if “X2,” which represents the distance salt water has traveled into the Delta by measuring “the intrusion of water with a salinity level of two parts per thousand,”²⁵ was located at a distance of 74-81 kilometers eastward of the Golden Gate Bridge.²⁶

This Bi-Op determined that maintaining X2 at this particular locational range was needed to ensure the survival and recovery of the endangered delta smelt.²⁷ This decision was based on data showing a strong correlation between increases in salinity levels beyond X2 levels and decreases in suitable abiotic habitat for

²⁰ See generally CAL. DEPT. OF WATER RES., BAY DELTA CONSERVATION PLAN ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT HIGHLIGHTS (December 2013), http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Highlights_of_the_Draft_EIR-EIS_12-9-13.sflb.ashx [hereinafter BDCP HIGHLIGHTS].

²¹ U.S. FISH AND WILDLIFE SERV., FORMAL ENDANGERED SPECIES ACT CONSULTATION ON THE COORDINATED OPERATIONS OF THE CENTRAL VALLEY PROJECT AND STATE WATER PROJECT (Dec. 15, 2008), http://www.fws.gov/sfbaydelta/documents/SWP-CVP_Ops_BO_12-15_final_signed.pdf [hereinafter REVISED DELTA SMELT BI-OP].

²² *Id.*

²³ See generally *id.*

²⁴ *Id.* at 285-293.

²⁵ *Westlands Water District v. U.S. Dept. of Int.*, 376 F.3d 853, 876 (9th Cir. 2004).

²⁶ REVISED DELTA SMELT BI-OP, *supra* note 21, at 282.

²⁷ *Id.*

delta smelt.²⁸ The Bi-Op explained that the location of “X2 is largely determined by Delta outflow, which in turn is largely determined by the difference between total Delta inflow and the total amount of water exported,”²⁹ and that the effects of the proposed CVP-SWP coordinated operation on X2 will have “significant adverse direct and indirect effects on delta smelt.”³⁰

The Bi-Op contained a graph indicating that the proposed CVP-SWP coordinated operations would cause X2 to shift upstream to approximately 90 kilometers east of the Golden Gate Bridge.³¹ The USFWS found that a shift of X2 upstream to this location, which was nearly 15% farther upstream than the current average location of X2, could cause the delta smelt to go extinct.³²

The 2008 USFWS Bi-Op for the delta smelt was challenged in federal court, and in April 2014, this Bi-Op was upheld by the Ninth Circuit Court of Appeals.³³ In its ruling in *San Luis v. Jewell*, the Ninth Circuit found that “[a]s the combined pumping operations of the SWP/CVP remove hundreds of gallons of fresh water from the Bay Delta, X2...shifts eastward towards the Delta....The Bi-Op determined that the ‘long-term upstream shift in X2...has caused a long-term decrease in habitat area availability for the delta smelt’ and it set forth an adaptive management program to minimize the effect of project pumping on X2.”³⁴ In November 2014, the United States Supreme Court denied cert to review the Ninth Circuit Court of Appeal’s decision in *San Luis v. Jewell*.³⁵

III. NEXUS BETWEEN X2 AND SEA LEVEL RISE – 2014 RECLAMATION CLIMATE IMPACT ASSESSMENT

In September 2014, the Bureau of Reclamation released a report titled *Climate Impact Assessment for the Sacramento and San Joaquin Basin (“Reclamation Climate Impact Assessment”)*.³⁶ Reclamation prepared the Climate Impact Assessment in connection with the operations of its Central Valley Project (CVP), which diverts, stores, and delivers waters from the Sacramento River and San Joaquin River watersheds and includes such

²⁸ *Id.* at 233-38.

²⁹ *Id.* at 236.

³⁰ *Id.* at 237.

³¹ *Id.* at 265, fig. E-19.

³² *Id.* at 235, 237.

³³ *See San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d 581 (9th Cir. 2014).

³⁴ *Id.* at 622.

³⁵ *San Luis & Delta-Mendota Water Authority v. Jewell*, 747 F.3d 581 (9th Cir. 2014), *cert denied sub nom.*, 135 S.Ct 948 (Jan. 12, 2015).

³⁶ U.S. BUREAU OF RECLAMATION, U.S. DEPT. OF INT., SACRAMENTO AND SAN JOAQUIN BASINS CLIMATE IMPACT ASSESSMENT (September 2014), <http://www.usbr.gov/WaterSMART/wcra/docs/ssjbia/ssjbia.pdf> [hereinafter CLIMATE IMPACT ASSESSMENT].

structures as Shasta Dam on the Sacramento and Friant Dam on the San Joaquin.³⁷ The report focused on how projected salinity increases induced by sea level rise would impact CVP agricultural and urban water supplies, rather than impacts on smelt or fisheries.³⁸

On page 39 of the 2014 Reclamation *Climate Impact Assessment* there is a section titled “Delta Salinity” that contains a table showing salinity measurements and projections, see Figure 1 below.

Metric	Period	CT_NoCC	CT_Q5	CAT12	Percent Change from CT_NoCC	
					CT_Q5	CAT12
Delta Salinity – Emmaton (average annual EC in $\mu\text{S}/\text{cm}$)	2012-2040	1,782	1,985	2,198	11%	23%
	2041-2070	1,768	2,268	2,751	28%	56%
	2071-2099	2,151	3,940	4,036	83%	88%
Delta Salinity – Jersey Point (average annual EC in $\mu\text{S}/\text{cm}$)	2012-2040	1,536	1,654	1,807	8%	18%
	2041-2070	1,600	1,885	2,211	18%	38%
	2071-2099	1,718	2,629	2,837	53%	65%

Figure 1. Summary of Salinity Monitoring, Climate Impact Assessment for the Sacramento and San Joaquin Basin³⁹

Figure 1 focuses on two salinity monitoring locations in the Delta, one at a location called Emmaton and the other at a location upstream called Jersey Point.⁴⁰ The table shows the anticipated twenty-first century increases in salinity levels at these locations resulting from climate change-induced sea level rise and saltwater intrusion.⁴¹

For the period from 2041-2070, Table 7 projects a 28%-56% increase in salinity levels at Emmaton and an 18%-38% increase in salinity levels at Jersey Point. For the period from 2071-2099, Table 7 projects an 83%-88% increase in salinity at Emmaton and a 53%-65% increase in salinity at Jersey Point. Taken together, this data indicates that, as a result of climate induced sea level rise, salinity levels in these two Delta locations are expected to rise by 53-88% over the coming century.⁴² Keep in mind, these are not the projections of environmental groups or the United States Environmental Protection Agency or

³⁷ *Central Valley Project*, U. S. DEPT. OF INT., https://www.usbr.gov/projects/Project.jsp?proj_Name=Central+Valley+Project (last visited April 16, 2015).

³⁸ Climate Impact Assessment, *supra* note 36, at 39 (“Delta salinity conditions provide a measure of the risk to in-Delta and export water users that their water supplies will have a higher salinity than what is required to be in compliance with the standards for urban and agricultural beneficial uses set by the [State Water Resources Control Board].”).

³⁹ *Id.* at 40, tbl. 7.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

the USFWS. These are the projections of the Bureau of Reclamation, which operates the CVP.

While there was no mention in Table 7 of the 2014 Reclamation *Climate Impact Assessment* of the current location of X2 or of the upstream location where X2 is projected to shift as a result of climate change induced sea level rise, the implications of Table 7 for X2 are plain to see. If sea level rise will cause salinity levels in the Delta to increase by 53-88% in the coming century, then it follows that sea level rise will also cause X2 to shift much further upstream.

The information presented in Table 7 of the 2014 Reclamation *Climate Impact Assessment* is therefore quite bad news for the delta smelt.

IV. 2013 DRAFT EIR-EIS FOR THE BAY DELTA CONSERVATION PLAN

A. Overview of BDCP

There are two underlying purposes of the BDCP, which are often referred to as the co-equal goals of the BDCP.⁴³ These co-equal goals are: (i) to restore the Delta's ecosystem and fisheries; and (ii) to improve water supply reliability.⁴⁴

The BDCP was drafted as a multi-species habitat conservation plan (HCP) to satisfy the requirements of Section 10 of the federal Endangered Species Act.⁴⁵ As an HCP, the focus of the BDCP was on the restoration of several ESA-listed fisheries in the Delta, namely the endangered delta smelt and several endangered salmon and steelhead trout runs.⁴⁶

Additionally, the BDCP proposed a series of components that would guide the activities of the Bureau of Reclamation's CVP and the California Department of Water Resources' SWP for many decades, perhaps as long as 50 years out.⁴⁷ The components of the BDCP (as presented in the last draft environmental impact assessment documented issued in late 2013) include the following main three items. First, the BDCP proposes moving the main point of Delta diversion for the CVP and SWP from the south Delta to the north Delta and construction of two new tunnels to transport water from the new north point of diversion to agricultural and urban water users south of the Delta.⁴⁸ Second, the BDCP outlines a series of riparian enhancement projects designed to improve spawning

⁴³ See Rita Schmidt Sudman, *Meeting the Co-Equal Goals? The Bay Delta Conservation Plan*, WESTERN WATER, May/June 2013, available at <http://www.watereducation.org/western-water-excerpt/meeting-co-equal-goals-bay-delta-conservation-plan>.

⁴⁴ BDCP HIGHLIGHTS, *supra* note 20, at 2 ("The plan would help restore fish and wildlife species in the Delta and to improve reliability of water supplies...").

⁴⁵ *Id.* at 2.

⁴⁶ *Id.* at 28-31.

⁴⁷ *Id.* at 2 ("It is a planning document, to be implemented over 50 years...").

⁴⁸ *Id.* at 3, 7-10.

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habitat for fisheries.⁴⁹ Third, the BDCP anticipates a potential 18% increase in the amount of fresh water diverted out of or upstream of the Delta – diversions sometimes called Delta exports.⁵⁰ An 18% increase in fresh water diversions out of the Delta would result in a significant decrease in the amount of fresh water flowing both into and through the Delta.

There are four lead agencies for the BDCP – the federal Bureau of Reclamation, USFWS, and National Marine Fisheries Service, as well as California's Department of Water Resources ("DWR").⁵¹ Because the BDCP is a joint undertaking of these agencies, a joint EIR-EIS is being prepared pursuant to the NEPA and CEQA. The analysis below focuses on the CEQA-specific analysis in the December 2013 Draft EIR-EIS for the BDCP ("Draft EIR-EIS") rather than the NEPA-specific analysis in this document.

B. Appendix 2.C of the BDCP

Appendix 2.C of the BDCP was titled "Climate Change Implications and Assumptions" and reports: "Scenarios modeled by the California Climate Action Team project sea level rise increases along the California coast of 1.0 to 1.5 feet by 2050, and 1.8. to 4.6 feet by 2100. However, if California's sea level continues to mirror global trends, increases in sea level during this century could be considerably greater."⁵² So in Appendix 2.C. of the BDCP DWR acknowledges that the best available evidence indicates that by the end of the century sea level rise could be 4.6 feet (54 inches) and possibly higher.⁵³

C. Appendix 29A of the Draft EIR-EIS for the BDCP

Appendix 29A of the Draft EIR-EIS for the BDCP is titled "Effects of Sea Level Rise on Delta Tidal Flows and Salinity."⁵⁴ Figure 29A-13 (shown below in Figure 2) presents a graph showing how projected increases in sea level rise

⁴⁹ *Id.*

⁵⁰ U.S. BUREAU OF RECLAMATION, U.S. FISH & WILDLIFE SERV., NAT'L MARINE FISHERIES SERV., CAL. DEPT. OF WATER RES., DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT FOR THE BAY DELTA CONSERVATION PLAN, fig. 5-17. [hereinafter DRAFT EIR/EIS], available at <http://baydeltaconservationplan.com/PublicReview/2013PublicReviewDraftEIR-EIS.aspx>. Figure 5-17 compares annual delta water exports under the No Action alternative and under BDCP alternative 4H1. Figure 5-17 annual shows delta water exports under the No Action alternative to be 4,441 AF and annual delta water exports under BDCP alternative 4H1 to be 5,455 AF (which is an increase of 18%).

⁵¹ *Id.* at ES-6.

⁵² U.S. BUREAU OF RECLAMATION, U.S. FISH & WILDLIFE SERV., NAT'L MARINE FISHERIES SERV., CAL. DEPT. OF WATER RES., 2013 PUBLIC DRAFT BAY DELTA CONSERVATION PLAN, 2.C-12 [hereinafter DRAFT BDCP], available at <http://baydeltaconservationplan.com/PublicReview/2013PublicReviewDraftBDCP.aspx>.

⁵³ *Id.*

⁵⁴ DRAFT EIR/EIS, *supra* note 50, at Appendix 29A.

are expected to shift the location of X2.

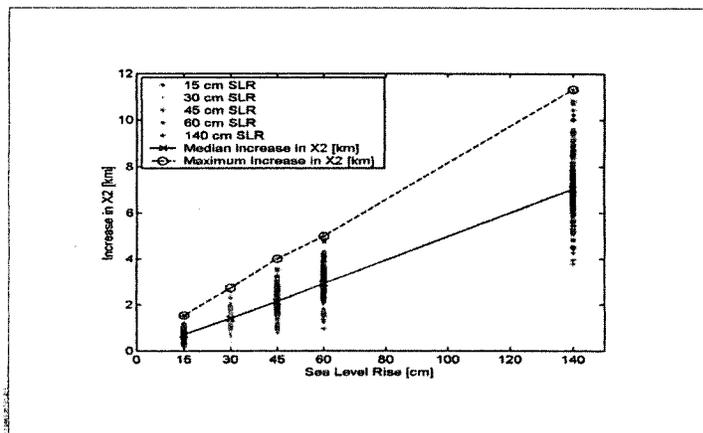


Figure 2. Simulated Daily Increases in X2 (Draft BDCP EIR-EIS)⁵⁵

According to this chart, a 30 centimeter sea level rise would cause X2 to shift approximately 1-2 kilometers upstream, a 45 centimeter sea level rise would cause X2 to shift 2-4 kilometers upstream, and a 140 centimeter sea level rise would cause X2 to shift 6-11 kilometers upstream.⁵⁶ As noted above, Appendix 2.C of the Draft BDCP acknowledged that sea level may rise more than 4.5 feet (or 140 centimeters).⁵⁷ Reading Appendix 2.C and Appendix 29A together, the Draft BDCP and EIR-EIS concede that climate change-induced sea level rise may cause the location of X2 to shift as much as 11 kilometers upstream from its current location.⁵⁸

Yet, pursuant to the analysis and methodology in the 2008 USFWS Bi-Op, if X2 were to shift 11 kilometers upstream (to a location approximately 90 kilometers east from the Golden Gate Bridge), the delta smelt faces the likelihood of extinction.⁵⁹ The projected upstream shift in X2 due to sea level rise places X2 close to the location where the USFWS has determined that delta smelt cannot survive, and the only way to counteract this anticipated upstream shift in X2 would be to ensure that additional fresh water flows into the Delta.⁶⁰

Appendix 2.C and Appendix 29A of the Draft BDCP and EIR-EIS, respectively, therefore disclose the effect that climate change-induced sea level

⁵⁵ *Id.* at App. 29A, fig. 29A-13.

⁵⁶ *Id.*

⁵⁷ DRAFT BDCP, *supra* note 52, at Appendix 2.C.

⁵⁸ *Id.*; DRAFT EIR/EIS, *supra* note 50, at Appendix 29A.

⁵⁹ REVISED DELTA SMELT BI-OP, *supra* note 21, at 237.

⁶⁰ *Id.* at 235-38, 282-83.

2015] *Sea Level Rise, Saltwater Intrusion and Endangered Fisheries* 269

rise will have on salinity levels and the location of X2.⁶¹ These appendices, however, do not then contain subsequent analysis of how these expected changes in salinity levels and the location of X2 will impact the recovery and survival of the endangered delta smelt.

D. CEQA Baseline in the Draft EIR-EIS and BDCP

As noted above, DWR (which operates California's State Water Project) was the lead CEQA agency in connection with the Draft EIR-EIS prepared for the BDCP. In Appendix 3D of the BDCP EIR-EIS, DWR explains the baseline conditions it would be using in connection with its CEQA environmental impact analysis.⁶²

In Appendix 3D, DWR states: "The CEQA baseline for assessing the significance of impacts of any proposed project is normally the environmental setting, or existing conditions, at the time the NOP [Notice of Preparation] is issued (State CEQA Guidelines Section 15125). . . This directive was recently interpreted and applied by the California Supreme Court (*Neighbors for Smart Rail*).... According to the Court [in *Smart Rail*], the CEQA Guidelines establish the default of an existing conditions baseline even for projects expected to be in operation for many years or decades. . . [A]ny sole reliance on such a future baseline is only permissible where a CEQA lead agency can show, based on substantial evidence, that an existing conditions analysis would be misleading or without informational value. . . The CEQA baseline [for the BDCP] is existing conditions at the time of the NOP [February 2009]."⁶³

This characterization of the *Smart Rail* holding is not wholly inaccurate but is certainly an incomplete and arguably misleading description of the decision. More specifically, the characterization of *Smart Rail* in Appendix 3D of the EIR-EIS fails to mention the California Supreme Court's express endorsement of the use of multiple baselines (that include future as well as existing conditions baselines) as a preferred approach to sole reliance on a future baseline.⁶⁴ Appendix 3D's characterization of *Smart Rail* suggests that CEQA would somehow prohibit or preclude DWR from using a future baseline to consider the effects of climate change-induced sea level rise on Delta fisheries, and this is erroneous. The California Supreme Court's decision in *Smart Rail* lends no support to this characterization and in fact contradicts it.⁶⁵ In *Smart Rail*, the California Supreme Court expressed reservations about the use of a future

⁶¹ DRAFT BDCP, *supra* note 52, at Appendix 2.C; DRAFT EIR/EIS, *supra* note 50, at Appendix 29A.

⁶² DRAFT EIR/EIS, *supra* note 50, at Appendix 3D.

⁶³ *Id.* at 3D-1.

⁶⁴ See discussion *supra* Part I & notes 8-19; *Neighbors for Smart Rail v. Exposition Metro Line Const. Auth.*, 57 Cal. 4th 439, 452-456 (2013).

⁶⁵ *Id.*

conditions baseline *in lieu of* an existing conditions baseline, not the use of a future conditions baseline *in addition to* an existing conditions baseline.

The definition of the CEQA baseline presented in Appendix 3D of the BDCP EIR-EIS was also set forth in a December 2013 document co-prepared by DWR titled *Highlights of Bay Delta Conservation Plan Environmental Impact Report/Environmental Impact Statement* (“BDCP Highlights”).⁶⁶ The section of *BDCP Highlights* on “Water Supply” explained that “[s]ea level rise will push salt water further east into the Delta, requiring upstream water releases to push sea water out of the Delta and achieve in-Delta water quality standards. These operational changes, would in turn, decrease available water supply for south of Delta users.”⁶⁷ The section of the *BDCP Highlights* on “Water Quality” then finds that “seawater intrusion caused by sea level rise or decreased Delta outflow. . . can increase the concentration of salts. Conversely, Delta outflow can decrease the effects of seawater intrusion.”⁶⁸ *BDCP Highlights* thus explicitly and repeatedly notes how sea level rise will impact Delta salinity levels and how increasing fresh water flows in the Delta would help counter this seawater intrusion.

However, after noting that sea level rise will require additional instream flow to push saltwater intrusion back, the section of *BDCP Highlights* labeled “Environmental Baseline” provides: “In order to measure the magnitude of any impact, agencies must first identify a baseline condition to serve as a point of impact comparison. . . The CEQA baseline standard normally requires a project to review its impacts relative to ‘change from existing conditions.’”⁶⁹ The section of *BDCP Highlights* on “Water Quality” also goes on to clarify: “Existing conditions. . . are the conditions at the time the NOP [CEQA Notice of Preparation] was issued – that is, 2009. These conditions do not include projections of future sea level rise and climate change. . .”⁷⁰ Again, this characterization of CEQA baseline conditions does not take into account the California Supreme Court’s endorsement of multiple baselines in *Smart Rail*, which permits CEQA lead agencies to use a future conditions baseline, in addition to an existing conditions baseline.⁷¹

Similar to Appendix 2.C of the BDCP and Appendix 29A of the Draft EIR-EIS, the *BDCP Highlights* document acknowledges the ways sea level rise will impact Delta salinity and how this will require increased instream fresh water flow into the Delta, while simultaneously taking the position that this information regarding sea level rise will not be considered in the CEQA

⁶⁶ BDCP HIGHLIGHTS, *supra* note 20.

⁶⁷ *Id.* at 19.

⁶⁸ *Id.* at 24.

⁶⁹ *Id.* at 11.

⁷⁰ *Id.* at 19 (emphasis added).

⁷¹ See citations *supra* note 64.

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environmental impact assessment analysis of the BDCP.

As a result of DWR's exclusive reliance on an existing conditions baseline for its CEQA analysis in the Draft EIR-EIS, notwithstanding the disclosure in Appendix 2.C. of the BDCP and Appendix 29A of the Draft EIR-EIS that confirm the impacts of sea level rise on salinity levels and X2, the CEQA analysis in the Draft EIR-EIS does not factor the information on sea level rise and salinity levels into its significance determinations, alternatives analysis or mitigation analysis.⁷² That is, the information in Appendix 2C and Appendix 29A is not then integrated into the rest of the CEQA analysis. This information is, so to speak, left out in the cold of the appendices. More to the point, the CEQA analysis does not consider (in the context of severity of projects impacts, alternatives or mitigation) how additional fresh water flows into the Delta (and a corresponding reduction in the amount of fresh water diversion) would be needed to prevent the upstream shift of X2 resulting from sea level rise.

One possible explanation for this disregard of the sea level rise impacts on delta smelt is hinted at in Appendix 3D of the Draft EIR-EIS. More specifically, Appendix 3D disclosed:

DWR did not assume full implementation of a particular requirement of the [2008] delta smelt BiOp, known as the 'Fall X2' salinity standard, which in certain water year types can require large upstream reservoir releases in fall months for wet and above normal wet years to maintain the location of 'X2' as approximately 74-81 river kilometers inland from the Golden Gate Bridge. . .DWR determined that full implementation of the Fall X2 salinity standard was not certain to occur within a reasonable near-term time frame because of a recent court decision....As of [spring 2011], in litigation challenging the delta smelt BiOp filed by various water users, which DWR intervened, the United States District Court found that the USFWS failed to full explain the specific rationale used to determine the location for Fall X2 included in the RPA and remanded to the USFWS....This uncertainty, together with CEQA's focus on existing conditions, led to the decision to use a CEQA baseline without the implementation of the Fall X2 action in the draft EIR/EIS.⁷³

Putting aside the question of the credibility of this explanation, with the 2014 reversal of the referenced federal district court decision by the Ninth Circuit Court of Appeals in *San Luis v. Jewell* and the United States Supreme Court's denial of review,⁷⁴ there is now no longer any uncertainty as to status of the X2 requirements in the 2008 USFWS delta smelt Bi-Op. The X2 requirements in the Bi-Op have now been upheld by the courts, so it would then follow that

⁷² BDCP HIGHLIGHTS, *supra* note 20, at 19.

⁷³ DRAFT EIR/EIS, *supra* note 50, at 3D-2.

⁷⁴ See discussion and citations *supra* Part II & notes 33-35.

DWR should now assume (in its CEQA analysis) that these X2 requirements will be fully implemented.

It is also perhaps understandable why DWR and the contractors that receive water from the State Water Project are reluctant to engage in environmental analysis which would demonstrate that more fresh water needs to be left instream to flow into the Delta, since this would result in reduced SWP water exports above and out of the Delta. However, the omission of this analysis renders the CEQA analysis in the Draft EIR-EIS legally vulnerable. Given that Appendix 2.C of the BDCP and Appendix 29A of the Draft EIR-EIS expressly concede and document the extent to which climate change-induced sea level rise will move X2 upstream, and given the well-established link between the position of X2 and the survival of the endangered delta smelt, DWR may have a difficult time convincing a court that there is substantial evidence to support the remainder of its CEQA fisheries impact analysis which assumes that X2 will remain in the same location. Such reliance on an assumption explicitly acknowledged by a lead CEQA agency to be incorrect may constitute an unlawful abuse of discretion.⁷⁵

V. CONCLUSION – BDCP AS POTENTIAL TEST CASE ON SHIFTING BASELINES

As noted above, the effects of climate change present unique challenges to the basic environmental impact assessment paradigm, particularly for projects that will operate well into the future. This is because under the basic environmental impact assessment paradigm, the determination of significant adverse impacts and the identification of appropriate alternatives and mitigation to address such impacts are developed in reference to a single set of baseline conditions.⁷⁶ Yet, with climate change, the baseline conditions against which long-term projects operate will shift.⁷⁷ This means that the severity of the project's impacts and the measures needed to effectively counter these more severe project impacts will shift too.

In this context, the BDCP may serve as important test case to assess whether, under circumstances where climate change impacts are inevitable and quantifiable, the lack of consideration of future baseline conditions (alongside existing baseline conditions) may constitute a violation of CEQA. The BDCP may be the right test case on this question because the failure to consider the impacts of sea level rise on the survival of the endangered fisheries that are a primary focus of the BDCP arguably taints the remaining fisheries impact analysis of the project.

Without the use of such a future baseline, the CEQA analysis of how much

⁷⁵ See CAL. CODE CIV. PROC. § 1094.5(c) (West 2015).

⁷⁶ REMY ET AL., *supra* note 3, at 414-465.

⁷⁷ THE LAW OF ADAPTATION, *supra* note 19, at 5-6, 95, 109-11.

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fresh water flow is needed to restore the delta smelt becomes delusional. The fisheries impact analysis remains tethered to long-term assumptions of saltwater intrusion and X2 that everyone (including the agencies that operate the CVP and SWP) knows to be incorrect.⁷⁸ More specifically, in this instance, the failure to use a future baseline results in fundamental flaws in the CEQA analysis of how the BDCP's proposed export of an additional 18% of fresh water from the Delta is likely to impact the endangered delta smelt.⁷⁹ Under these circumstances, a reviewing court may be persuaded that the use of a future baseline to address expected sea level rise is not merely permissible under CEQA but required.

The recognition of such a requirement under CEQA could in turn, help influence the way sea level rise specifically and climate change more generally, is factored into other non-California environmental impact assessment laws. This would help shift the standard environmental impact assessment paradigm to take full account of how the impacts of long-term projects will change as climate change alters the background conditions against which such projects operate.

⁷⁸ See DRAFT BDCP, *supra* note 52, at Appendix 2.C.; DRAFT EIR/EIS, *supra* note 50, at Appendix 29A; BDCP HIGHLIGHTS, *supra* note 20, at 19.

⁷⁹ See citation and discussion *supra* note 50.

From: Paul Kibel <pkibel@ggu.edu>
Sent: Tuesday, July 21, 2015 4:45 PM
To: BDCPcomments
Subject: Comments of GGU Center on Urban Environmental Law (CUEL) on 2015 RDEIR-SDEIS for BDCP-California WaterFix
Attachments: CUEL Comments on 2015 RDEIR-SDEIS for BDCP-California WaterFix.pdf

On behalf of the Center on Urban Environmental Law (CUEL) at Golden Gate University School of Law, attached please find comments on the 2015 RDEIR/SDEIS for the Bay Delta Conservation Plan (BDCP)/California WaterFix. A hard copy of CUEL's comments have been also submitted via mail,

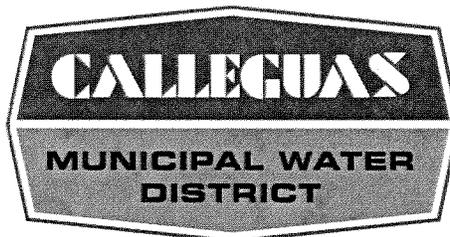
Yours,

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July 22, 2015

BDCP/Water Fix Comments
P.O. Box 1919
Sacramento, CA 95812

Subject: Support Alternative 4A of California Water Fix

Dear BDCP/Water Fix Comments:

On behalf of the Calleguas Municipal Water District (Calleguas), we are writing to express our strong support for the California Water Fix (Alternative 4A). The California Water Fix represents a thoroughly vetted, viable plan to fix California's aging water distribution system that supplies water to 25 million Californians and 3 million acres of farmland, while also protecting the natural environment in the Delta.

Since the partial completion of the State Water Project in the early 1970s, Calleguas has been virtually 100 percent reliant on this water supply. As such, resolution of decades-long water resource issues in the Sacramento-San Joaquin Delta is of the highest priority for Calleguas and its 630,000 water users in Ventura County. As evidence of this, in 2014, broad support for the Bay Delta Conservation Plan was fervently expressed in a Ventura County coalition letter signed by 26 cities, agencies, and organizations (attached hereto). We remain steadfast in our endorsement of this effort.

The recirculated documents are the culmination of nearly a decade of extensive expert review, planning and scientific and environmental analysis by the state's leading water experts, engineers and conservationists, and unprecedented public comment and participation. The California Water Fix (Alternative 4A) reflects significant changes and improvements to the plan to address comments from the state and federal governments and other stakeholders.

Our state's system of aging dirt levees, aqueducts and pipes that brings water from the Sierra Nevada Mountains to 2/3 of the State is outdated and at risk of collapse in the event of a major earthquake or flood. Problems with this aging system have already resulted in significant water supply cutbacks and shortages for people, farms and businesses, as well as damage to fish, wildlife and the environment.

Calleguas MWD BDCP/WaterFix Comments
July 22, 2015
Page 2 of 2

The California Water Fix will improve our water delivery infrastructure to allow us to responsibly capture and move water during wet years, so that we have a greater water supply during future droughts. The current drought has demonstrated that California's aging water infrastructure is not equipped to handle the regular boom and bust cycles of our climate. With above average rains predicted in the near future, we must move forward with improved infrastructure to capture the water when it's available.

The California Water Fix (Alternative 4A) will:

- Protect water supplies by delivering them through a modern water pipeline rather than relying solely on today's deteriorating dirt levee system.
- Build a water delivery system that is able to protect our water supplies from earthquakes, floods and natural disasters.
- Improve the ability to move water to storage facilities throughout the state so we can capture it for use in dry years.
- Restore more natural water flows above ground in rivers and streams in order to reduce impacts on endangered fish and other wildlife.
- Protect and restore wildlife and the environment of the Sacramento-San Joaquin Delta.

Getting to this point has been a long and thorough process. Now is the time to act and move forward to protect California's water security.

For these reasons, we urge the Department of Water Resources and the Administration to move forward to bring the California Water Fix to fruition and support the California Water Fix (Alternative 4A).

Sincerely,



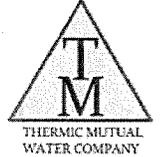
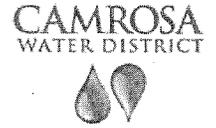
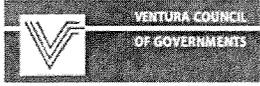
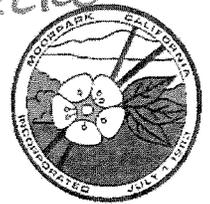
Scott H. Quady
President

Attachment

cc: Governor Edmund G. Brown Jr.
Board of Directors, Calleguas MWD



RECIRCULO



July 25, 2014

Bay Delta Conservation Plan Comments
Ryan Wulff, National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

RE: Draft Bay Delta Conservation Plan – Public Comments

Dear Mr. Wulff:

The agencies and organizations referenced below, representing a diverse coalition of governmental, business, and agricultural interests in Ventura County, California, offer the following comments on the draft Bay Delta Conservation Plan (BDCP) as released on December 13, 2013.

The State Water Project (SWP) is a vital component of Southern California's water system, providing roughly 30 percent of the region's water needs. However, nearly three-quarters of the annual water demand for an estimated 630,000 water users in southern Ventura County is met with about 110,000 acre feet per year of state water supplies. While many efforts are underway to reduce our service area's imported water demand, including groundwater desalination, recycled water, and conservation programs, state project water will remain an essential water source for our region. It will continue to serve as a primary source for our drinking water supply

and recycled water projects. It is also the single largest recharge component of our groundwater basins following treatment and discharge from local municipal wastewater facilities. Moreover, given its comparatively high quality, it allows greater use of our native groundwater that must be blended with imported water to meet state and federal water quality standards. As such, a reliable supply of imported state water is critical for the future social and economic vitality of Ventura County.

In recent years, both state and federal project deliveries have been repeatedly interrupted and reduced due to operational conflicts with threatened and endangered Delta species. Since 2007, it is estimated that nearly 3.5 million acre feet of water that normally would have been delivered by the SWP was lost due to these conflicts.

Additionally, both projects risk complete failure given the vulnerability of the Delta levee system to catastrophic earthquake and flood events - threatening water supplies for Southern California, the Bay Area, the Central Coast and the Central Valley for many years. These risks are clearly unacceptable, and conditions are expected to worsen with climate change unless steps are taken now to mitigate these concerns.

Southern California ratepayers have been investing in the SWP for more than four decades, and have additionally invested billions of dollars in regional storage and conveyance to allow Southern California to capture water when it is plentiful and reduce demands on imported supplies during dry and critically dry years. These investments are effectively stranded if water deliveries from the SWP continue to degrade.

The proposed BDCP, being developed under provisions of the state and federal endangered species protection laws, is the most promising plan developed to date to solve these challenges and resolve decades of conflicts among agricultural, urban, and environmental water users with a comprehensive solution that achieves California's co-equal goals of a reliable water supply and a restored Delta ecosystem for the benefit of all water users.

The release of the public draft BDCP represents an important milestone in this eight-year stakeholder process. In exhaustive detail, the draft BDCP illustrates the complexity of the problems and the need for a comprehensive approach to resolve conflicts in the Delta through a multi-species habitat conservation plan that protects the state's water resources and infrastructure.

We are supportive of the BDCP's proposed twin-tunnel conveyance system that isolates and protects drinking water supplies and helps restore natural flow patterns in the Delta for the benefit of native species, as well as the complementary habitat restoration, water quality, and predator control measures outlined in the BDCP. We also support the plan's recognition that changing conditions in the Delta will require ongoing scientific review and real-time monitoring so the plan can effectively adapt over time to emerging science and the evolving ecosystem. The draft plan also provides an important framework for a range of operational outcomes and level of certainty necessary for a final plan to merit investment by participating public water agencies and by the state and federal governments.

While key decisions remain relating to specifics on cost allocations, operations, outflow range, financing, and other issues; the current draft details a workable solution to the challenges facing California's water resources and the Delta. The proposed BDCP is the most comprehensive effort ever undertaken to address the chronic water challenges facing the state and federal

water projects in a manner that is protective of the Delta environment. We remain supportive of the efforts of state and federal water contractors in the development of the BDCP and urge the state to move forward with the draft plan and focus on resolving those remaining issues needed to provide assurances that the plan will achieve California’s co-equal goals of water supply reliability and ecosystem restoration in a cost-effective manner.

Thank you for the opportunity to comment on this historic draft plan.

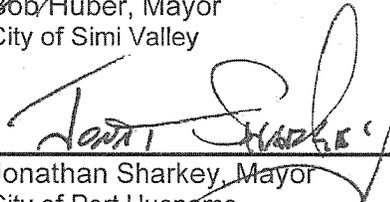
Sincerely,



Bob Huber, Mayor
City of Simi Valley



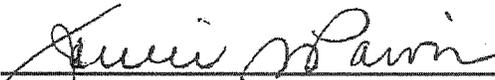
Tim Flynn, Mayor
City of Oxnard



Jonathan Sharkey, Mayor
City of Port Hueneme



Kevin Kildee, Mayor
City of Camarillo



Janice Parvin, Mayor
City of Moorpark



Jan McDonald, Chair
Ventura Council of Governments



Scott Quady, President
Calleguas Municipal Water District



Lynn Maulhardt, President
United Water Conservation District



Bryan MacDonal, President
Association of Water Agencies of Ventura County



Eugene West, President
Camrosa Water District



Ed Simon, Vice President of Operations
California American Water Company



Steven Iceland, Chair
Triunfo Sanitation District



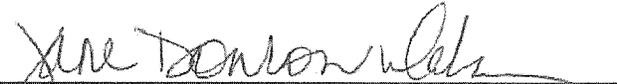
Sol Chooljian, President
Crestview Mutual Water Company



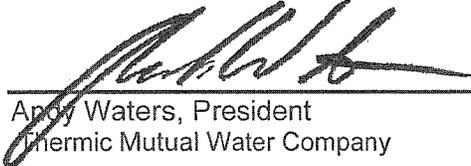
James Graham, President
Pleasant Valley Mutual Water Company



Craig Underwood, President
 Zone Mutual Water Company



Jane Donlon Waters, President
 Berylwood Mutual Water Company



Andy Waters, President
 Thermic Mutual Water Company



Lynn Gray Jensen, Executive Director
 VC Coalition of Labor Agriculture and Business



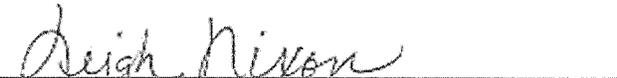
Ellen Brown, Chair
 Ventura County Economic Development Association



Gary Cushing, President/CEO
 Camarillo Chamber of Commerce



Nancy Lindholm, President/CEO
 Oxnard Chamber of Commerce



Leigh Nixon, President/CEO
 Simi Valley Chamber of Commerce



Jill Lederer, President/CEO
 Greater Conejo Valley Chamber of Commerce



Dale Parvin, President/CEO
 Moorpark Chamber of Commerce



Tracy Sisson Phillips, President/CEO
 Port Hueneme Chamber of Commerce



Scott Eicher, President
 Chambers of Commerce Alliance – Ventura & Santa
 Barbara

cc: Governor Edmund G. Brown Jr.
 Congress Member Julia Brownley
 Senator Fran Pavley
 Senator Hannah-Beth Jackson
 Assembly Member Jeff Gorell
 Assembly Member Scott Wilk
 Ventura County Board of Supervisors
 Mayor Bob Huber, City of Simi Valley
 Mayor Janice Parvin, City of Moorpark
 Mayor Kevin Kildee, City of Camarillo
 Mayor Tim Flynn, City of Oxnard
 Mayor Jonathan Sharkey, City of Port Hueneme
 Mayor Andy Fox, City of Thousand Oaks
 Randy Record, Board Chair, Metropolitan Water District of Southern California
 Jeffrey Kightlinger, General Manager, Metropolitan Water District of Southern California

From: Eric Bergh <EBergh@calleguas.com>
Sent: Wednesday, July 22, 2015 1:24 PM
To: BDCPcomments
Subject: Calleguas MWD Letter of Support for CA WaterFix
Attachments: CMWD CA WaterFix support letter FINAL.pdf

To whom it may concern:

Attached is the Calleguas Municipal Water District's letter of support for the California WaterFix.

Thank you.

Eric Bergh
Manager of Resources
Calleguas MWD
805-579-7128