

**Drought by Design:
Current Water Outlook for
the San Joaquin Valley**

Rep. Devin Nunes
current as of 8/31/2016



- **State agencies have failed to fulfill requests for certain statistics on the California water crisis.**
- **As a result, some of the numbers in this presentation will likely fluctuate as the statistics are provided by the agencies or are determined through other sources. This water outlook will continue to be updated.**



I. AREA OF RESPONSIBILITY



II. THE PROBLEM DEFINED



III. SOLUTIONS



IV. CONSEQUENCES OF INACTION

I. AREA OF RESPONSIBILITY

California's San Joaquin Valley

- Central and southern regions
- 5 counties
 - Madera, Kings, Fresno, Tulare, and Kern
- 8 sub-basins of the San Joaquin Valley Basin
 - Kings, Tulare Lake, Kaweah, Tule, Westside, Kern County, Chowchilla, Madera

I. AREA OF RESPONSIBILITY



CVP and SWP



Friant Dam

Harvey O. Banks
Pumping Plant



C.W. "Bill" Jones
Pumping Plant



CA Aqueduct



Central Valley Project and State Water Project combined are designed to
withstand 5 years of drought

Average Annual Water Flow into the Delta



25 MAF inflow to Delta



19 MAF sent out to ocean

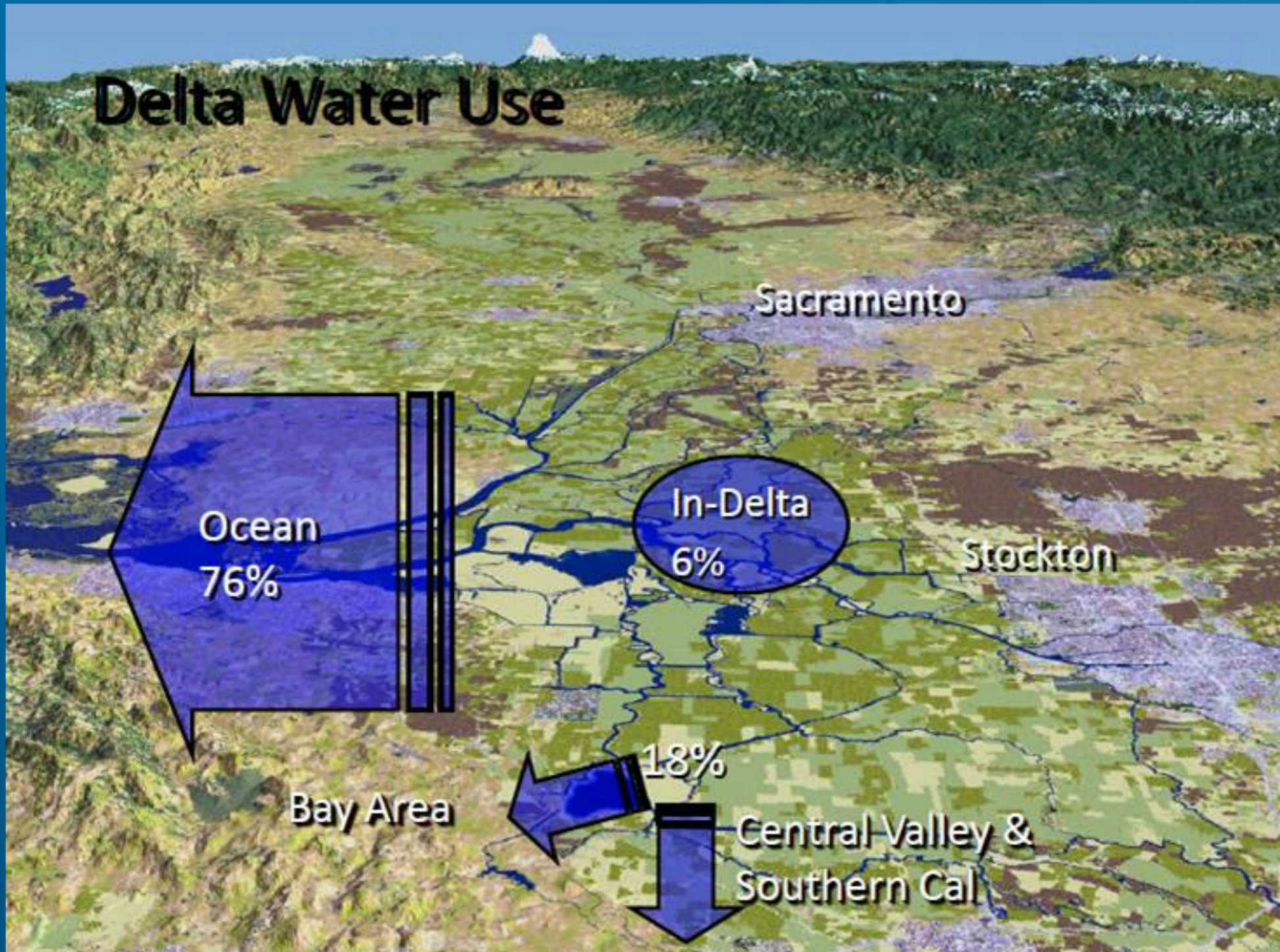


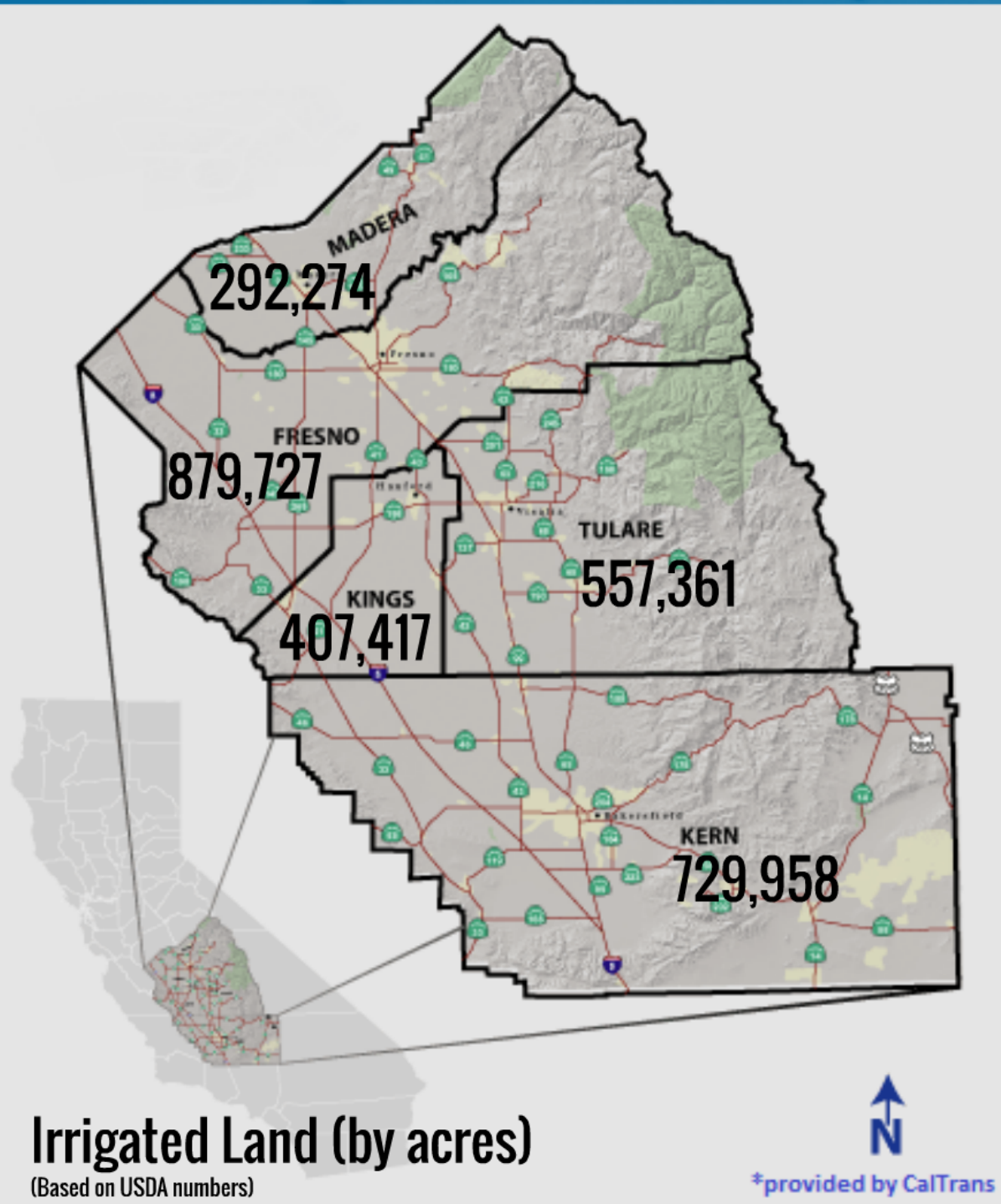
1.5 MAF used in Delta



4.5 MAF exported to Bay Area and south-of-delta

Delta Water Use







General Information

Width of District - 15 miles
 Length of District - 74 miles
 Number of farms - 700
 Average size of farms - 875 acres
 Annual crop production - \$1 billion +
 Gross Area - 674,000 acres

**Westlands
 By The Numbers**

PROJECT FACILITIES
 San Luis Canal / California Aqueduct
 Length in District 69.67 miles
 Maximum Top Width 257 feet
 Maximum Bottom Width 110 feet
 Maximum Depth 36 feet
 Capacity at:
 - Panoche Creek 13,000 cfs
 - Kettleman City 8,100 cfs

Coalinga Canal
 Total Length 12.8 miles
 Length of Canal 11.5 miles
 Maximum Top Width 60 feet
 Maximum Bottom Width 12 feet
 Maximum Depth 16 feet
 Capacity 1,100 cfs

DISTRICT INTERNAL DISTRIBUTION SYSTEM
 Total Pipeline Length 1,034 miles
 Maximum Pipeline Diameter 96 inches
 Minimum Pipeline Diameter 10 inches
 Ag Deliveries 3,300 + meters
 Non-Ag Deliveries 244 meters
 Number of Laterals:
 - San Luis Aqueduct 38 Left, 24 Right laterals
 - Coalinga Canal 6 laterals



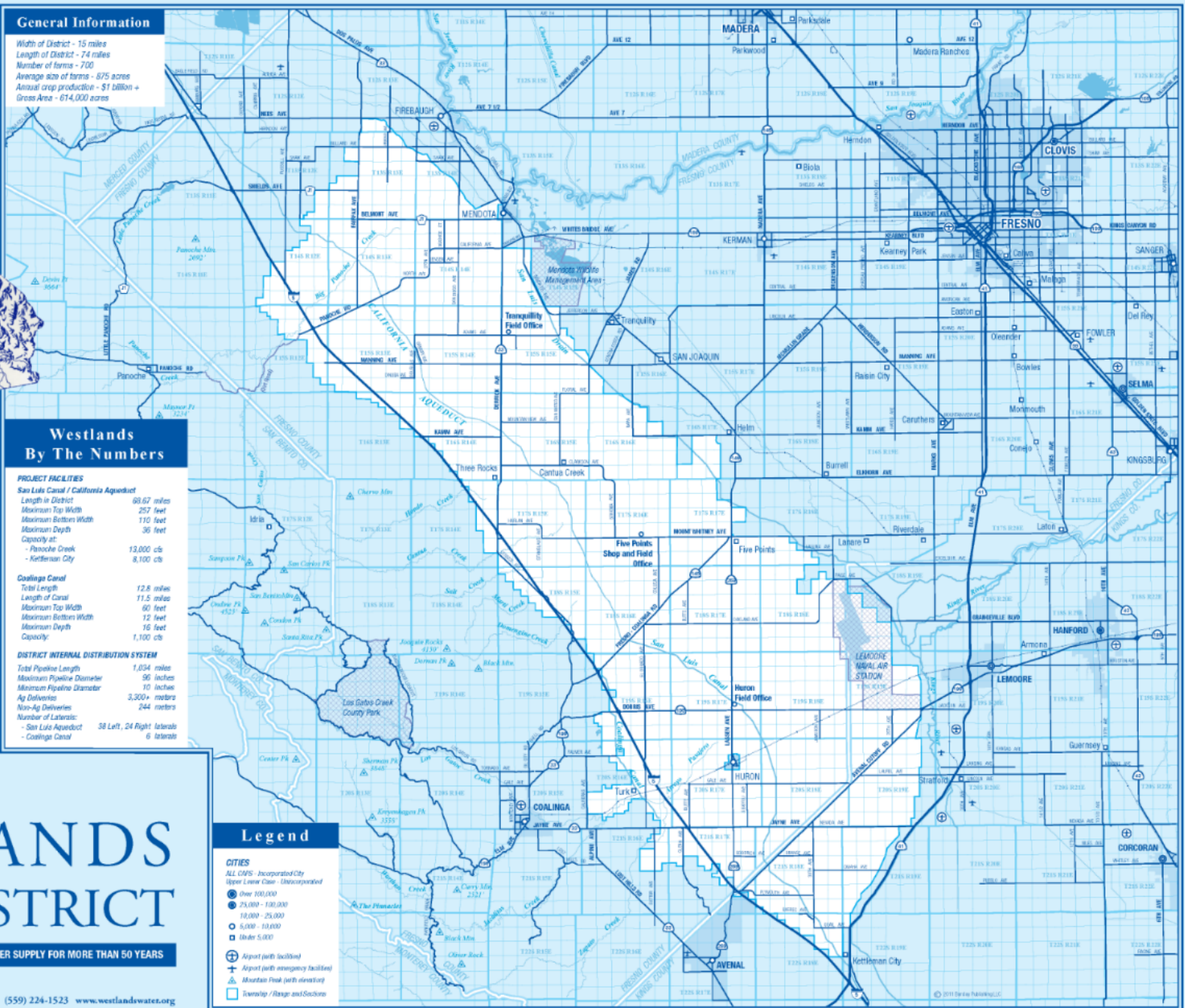
WESTLANDS WATER DISTRICT

COMMITTED TO PROVIDING FARMERS WITH A RELIABLE WATER SUPPLY FOR MORE THAN 50 YEARS

3130 N. Fresno Street, P.O. Box 6056, Fresno, CA 93703-6056 (559) 224-1523 www.westlandswater.org

Legend

- CITIES**
 ALL CITIES - Incorporated City
 Upper Lower Case - Unincorporated
- Over 100,000
 - 25,000 - 100,000
 - 10,000 - 25,000
 - 5,000 - 10,000
 - Under 5,000
- ⊕ Airport (with facilities)
 - ⊕ Airport (with emergency facilities)
 - ⊕ Mountain Peak (with elevations)
 - Township / Range and Sections



Irrigation Districts

Acres

Acres in Danger

Arvin-Edison WSD	131,660
Chowchilla WD	82,827
Fresno (city)	73,004
Hills Valley WD	?
Kaweah Delta WCD	264,854
Kern-Tulare WD	19,000
Lindmore ID	27,256
Lindsay-Strathmore ID	15,400
Madera ID	130,689
Orange Cove ID	28,050
Porterville ID	17,065
Saucelito ID	19,415
Terra Bella ID	13,972
Tulare ID	73,591
Delano-Earlimart ID	55,011
Exeter ID	14,945
Ivanhoe ID	11,202
Lower Tule River ID	103,086
Pixley ID	65,776
Shafter-Wasco ID	38,734
Southern San Joaquin MUD	59,938
Stone Corral ID	6,587
Tea Pot Dome WD	3,580
Chowchilla WD	82,827
Fresno ID	155,000
Gravelly Ford WD	8,457
Madera ID	130,689
Garfield WD	1,797
International WD	736
Lewis Creek WD	1,233
Tri-Valley WD	?
Westlands WD	568,050
Alta ID	80,000



Whitelands



Irrigation district: public corporation with clear geographic boundaries and the power to tax members in order to acquire and distribute water



Whitelands: land outside of an irrigation district's membership and geographic boundary



Roughly 2.9 million irrigated acres in 5 county region



2.2 million of these acres belong to a water district or irrigation district



Remaining 700,000 acres do not belong to an irrigation district and can be classified as whitelands

II. THE PROBLEM DEFINED



ESA



**CVPIA/River
Settlement**



SGMA

Endangered Species Act



Becomes law in 1973, leads to environmental lawsuits



1993: first legal challenge of water delivery under ESA



2004: environmental groups challenge Fish and Wildlife Service Biological Opinion protecting Delta Smelt



2005: environmental groups challenge National Marine Fisheries Service Biological Opinion protecting salmon and steelhead

Environmental Radicals



**SIERRA
CLUB**



Endangered Species Act



Loss in federal court leads to 2008 Smelt Biological Opinion



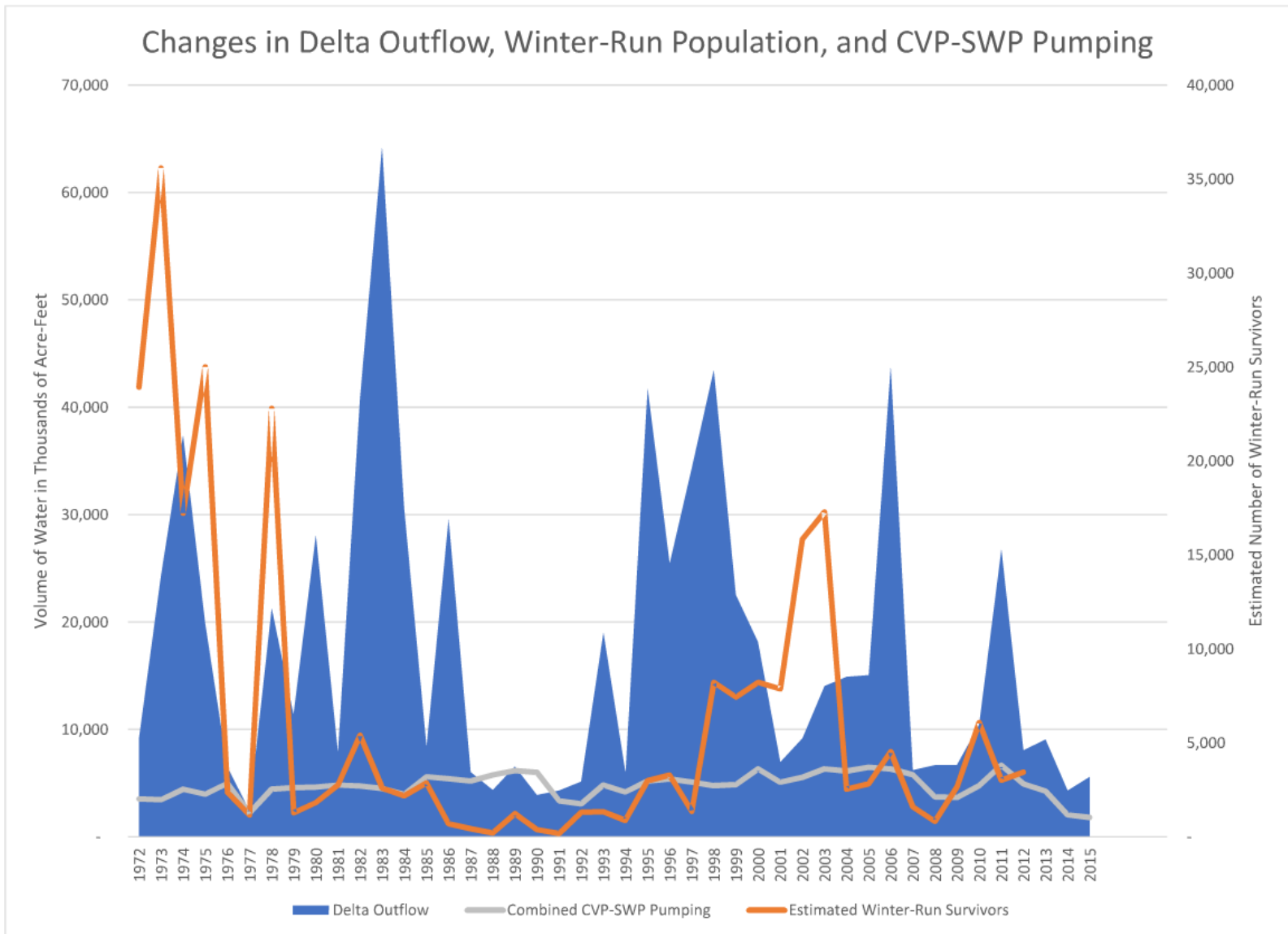
Loss in federal court leads to 2009 Salmon Biological Opinion

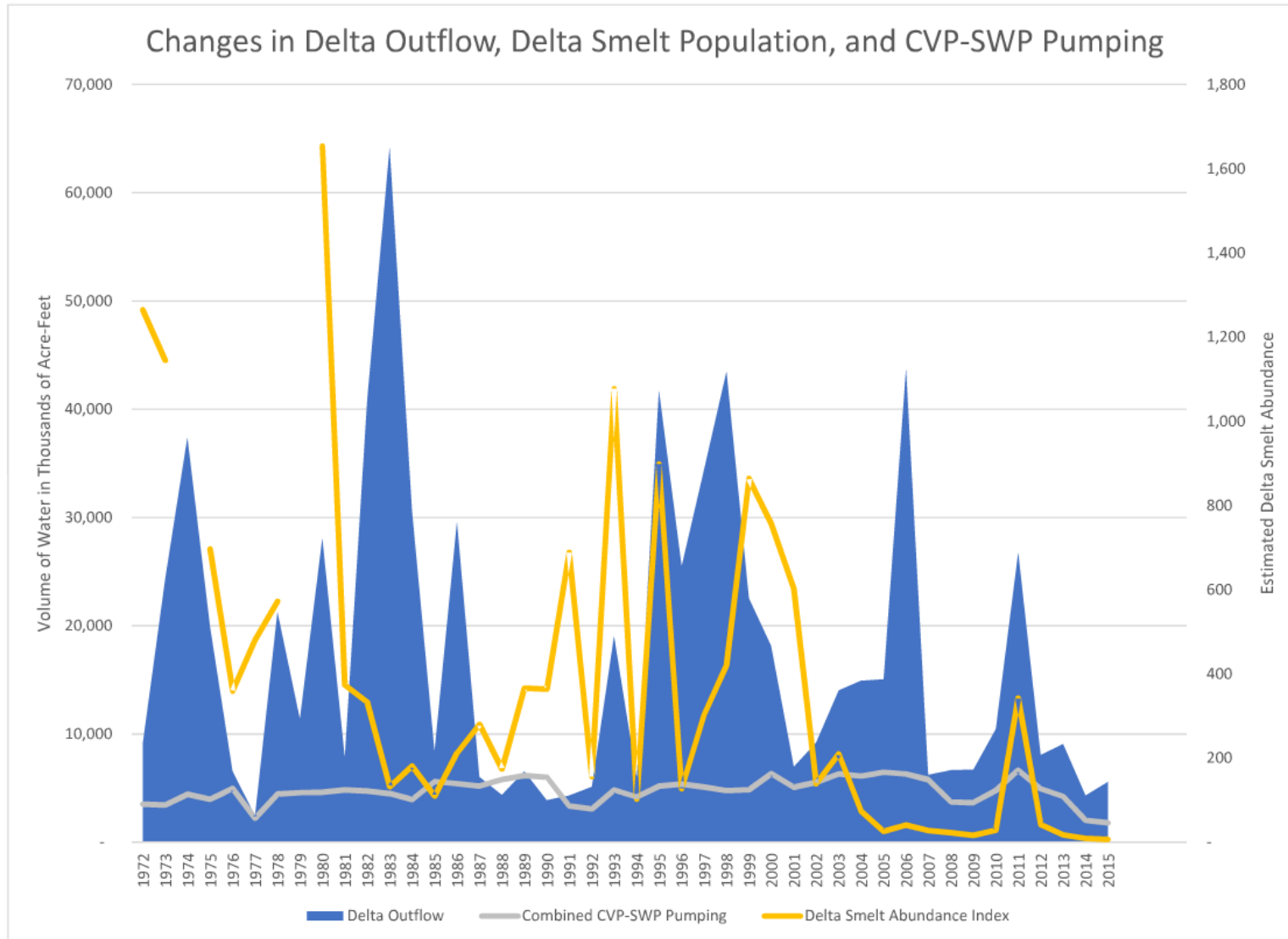


Poor CVP Operations

**9,614,339 AF FLUSHED INTO OCEAN FROM DELTA SINCE 1/2016
(3.1 TRILLION GALLONS)**






**19,200,000 MAF FLUSHED OUT TO OCEAN SINCE 2/2014
(6.2 TRILLION GALLONS)**

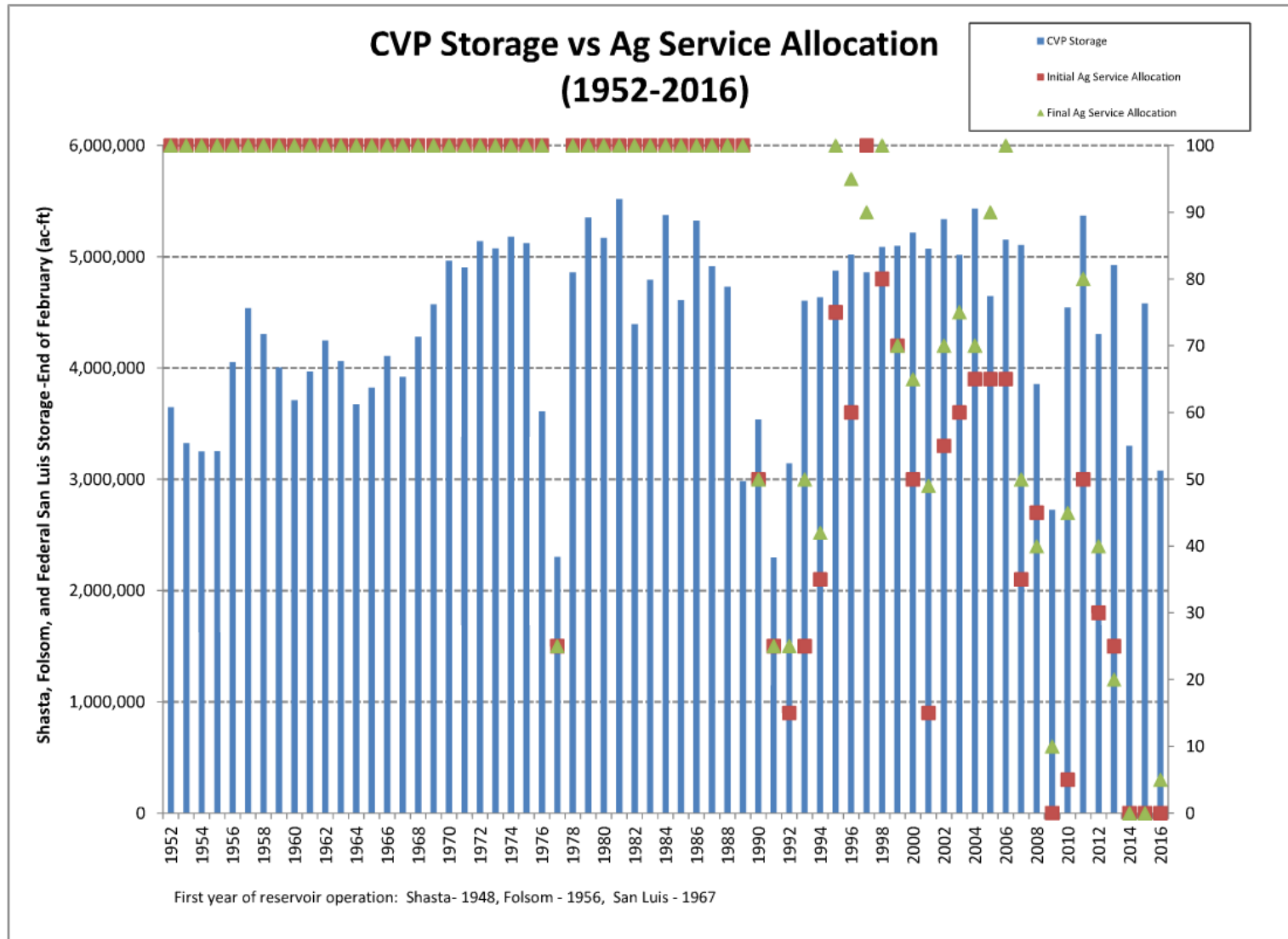




CVPIA

Central Valley Project Improvement Act

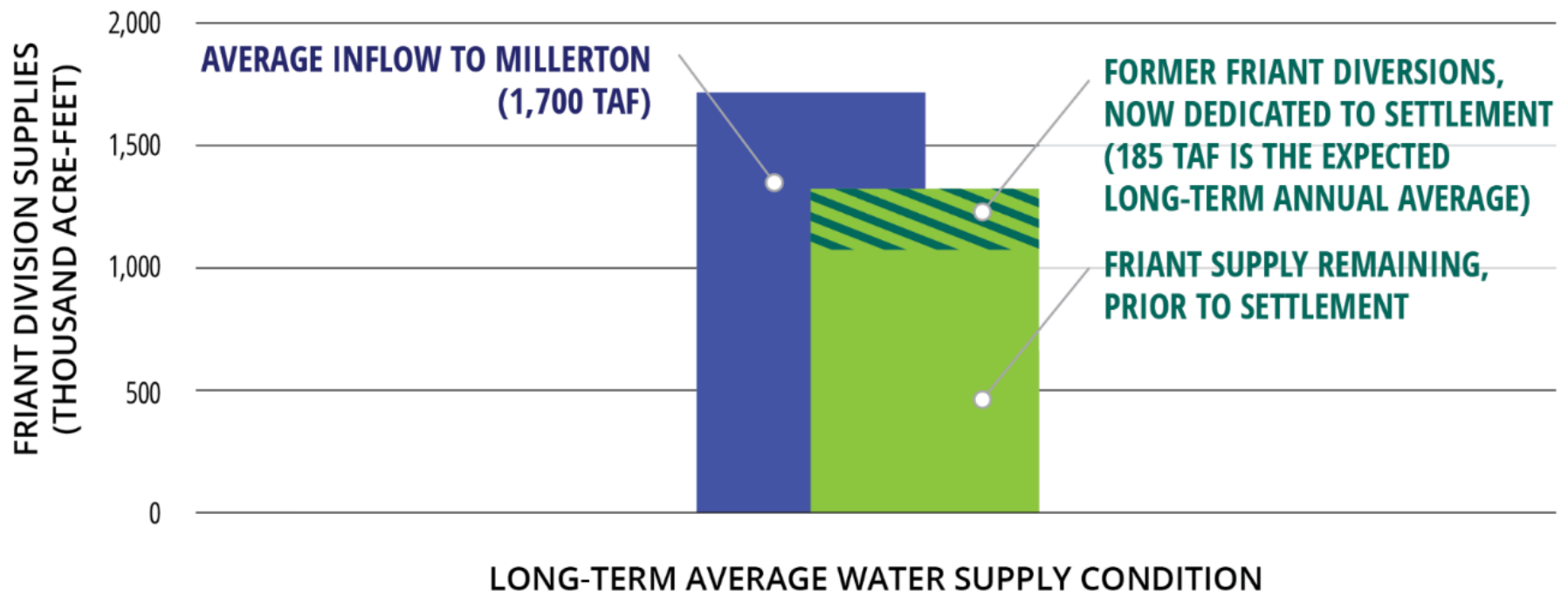
-  1988: Rep. George Miller develops first version of CVPIA
-  May 1992: Natural Resources considers and marks up legislation in committee
-  October 1992: Congress pushes through CVPIA as an environmental earmark within a broader must-pass legislative package (passed House 360 – 24 and Senate 83 – 8)
-  Creates fish restoration program, mandates an environmental slush fund paid for by water users, and shortens water contract terms
-  Dedicates 1.4 MAF of water to environment, of which approximately 1 MAF was taken from ag service contractors



San Joaquin River Settlement

- 1988: NRDC sues – claims Friant Dam violates environmental laws
- 2006: Settlement reached
- 2008: Rep. Nunes sends letter to Friant farmers (see Appendix 1)
- 2009: Democratic Congress and President Obama enact Settlement
- 2014: Rep. Nunes sends follow-up letter to Friant farmers (see Appendix 2)
- 185,000-250,000 AF (15% of Friant's supply) annually dedicated to create a salmon habitat on the San Joaquin River at a cost of \$1.5 billion
- 93,000 acres expected to be retired in Friant Division after full Settlement implementation

EFFECT OF SAN JOAQUIN RIVER RESTORATION ON FRIANT SUPPLIES







San Joaquin River Settlement Releases

Releases Required under the San Joaquin River Settlement

<i>Water Year Type</i>	Critical-Low	Critical-Dry	Dry	Normal-Dry	Normal-Wet	Wet
<i>Restoration Releases</i>	0	71,000	184,000	248,000	356,000	556,000

Temperance Flat

-  **January 2003: Rep. Nunes authorizes initial feasibility study of Temperance Flat on Upper San Joaquin River**
-  **Temperance Flat would capture excess AF not currently captured at Millerton**
-  **Excess water inflow on the San Joaquin River is currently being dedicated to the Settlement, and could not be captured by Temperance Flat**
-  **Temperance Flat is critical, but it will not be built until Settlement is fixed or repealed**






Temperance Flat

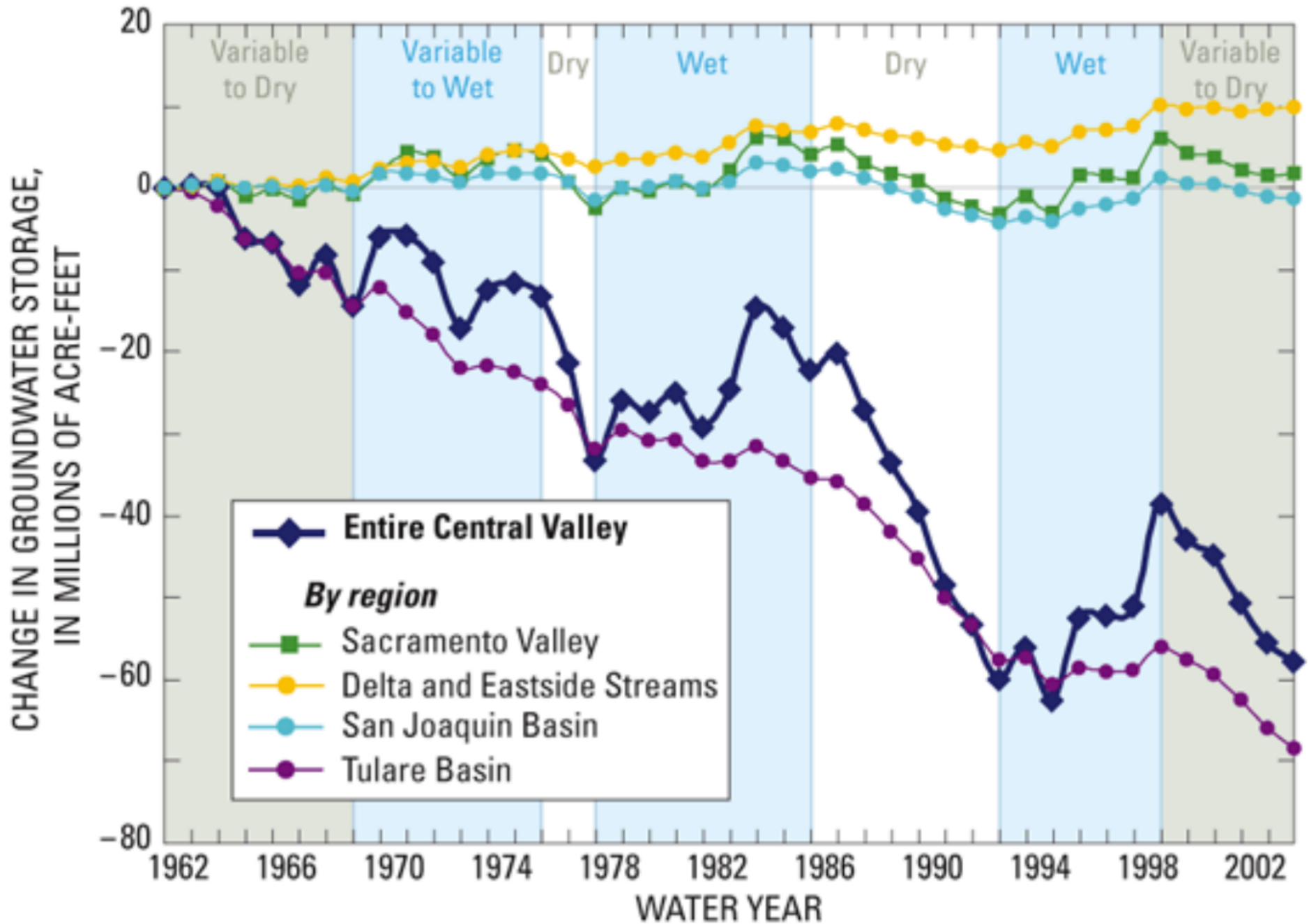
The long-envisioned Temperance Flat Dam would flood a section of the San Joaquin River bed from Millerton Lake to Kerckhoff Dam.



The Fresno Bee

Sustainable Groundwater Management Act (SGMA)

-  2014: CA legislature forces through legislation
-  Mandates a reduction in groundwater pumping
-  2020: Groundwater sustainability plans adopted
(land retirement program begins)
-  2040: Medium and high priority basins must achieve sustainability
-  DWR estimates 1.5 MAF of 2 MAF statewide overdraft occurring in
Central Valley



Part III. Solutions

1 Change Federal law

- ESA
- CVPIA
- San Joaquin River Settlement

2 Build water storage

- Raise Shasta Dam (increase capacity by 256,000 AF*)
- Expand San Luis Reservoir (increase capacity by 130,000 AF*)
- Expand Los Vaqueros Reservoir (increase capacity by 1,750,000 AF*)
- Build Temperance Flat (create capacity of 1,260,000 AF*)
- Build Sites Reservoir (create capacity of 1,400,000 AF**)

*numbers provided by US Bureau of Reclamation

**numbers provided by DWR

Federal Legislative Action

House Action

- 2012: H.R. 1837 → Reforms ESA, reforms CVPIA, repeals Settlement, authorizes storage projects produces approx. 2.5 MAF of increased water supply
- 2014: H.R. 3964 → Reforms ESA, reforms CVPIA, repeals Settlement, authorizes storage projects produces approx. 2.5 MAF of increased water supply
- 2014: CA Water Fix Sought in Farm Bill → Senate rejects CA water fix in Farm Bill conference produces approx. 1.3 MAF of increased water supply
- 2014: H.R. 5781 → Short-term water package which represents House and Senate negotiations produces approx. 385,000 AF of increased water supply
- 2014: CA Water Goes to Conference → House and Senate begin negotiations, but Senate refuses to make a deal
- 2015: H.R. 2898 → Reforms CVPIA, cuts red tape, authorizes storage projects produces approx. 1.3 MAF of increased water supply
- 2015: CA Water Goes to Conference (Again) → House and Senate begin negotiations, but Senate refuses to make a deal
- 2016: H.R. 2898 included in H.R. 5538 → Reforms CVPIA, cuts red tape, authorizes storage projects produces approx. 1.3 MAF of increased water supply
- 2016: H.R. 2898 included in energy authorization bill → Reforms CVPIA, cuts red tape, authorizes storage projects produces approx. 1.3 MAF of increased water supply

Senate Action

- 2014: S. 2198 → short-term emergency water package that sunsets at the end of drought conditions produces approx. 0 AF of increased water supply

A United Agenda

 All local agricultural groups and water districts should require elected officials to pledge their support for these core policies:

 Reform the Endangered Species Act through federal legislation to return pumping to historic pre-1992 levels

 Reform the CVPIA through federal legislation to restore 1.4 MAF of confiscated water

 Fix the San Joaquin River Settlement through federal legislation to restore additional confiscated water

 These steps would allow farming on all productive land and bring water tables into balance, securing 2.5 MAF of water

The Role of the State

-  CA Governor and Legislature should support House-passed water legislation
-  Legislature should authorize and fund the five water storage projects recommended in the 2000 CALFED Record of Decision

Living Hypocrisy

Delta Smelt



Striped Bass
Stomach Contents



Hetch Hetchy Dam



Water for San Francisco, a major support base for environmental groups, is piped across the Central Valley from Hetch Hetchy and is not subject to the draconian regulations these groups have imposed on the Valley's water supply



Environmentalists protect striped bass, even though they are a predator species feasting on the endangered salmon

The Role of the People

 Legislators have refused to act so the people must

 Voters must support ballot initiatives that prioritize state action on water crisis

Part IV. Consequences of Inaction

- 💧 Land retirement becomes imminent in 2020
- 💧 Central Valley agriculture, communities, and families continue to suffer
- 💧 2012 UC Davis study finds that farming and food processing industries account for 38% of employment in Central Valley
- 💧 2015 unemployment in Central Valley is significantly higher than the statewide figure, and almost double in some counties



Sacramento Bee



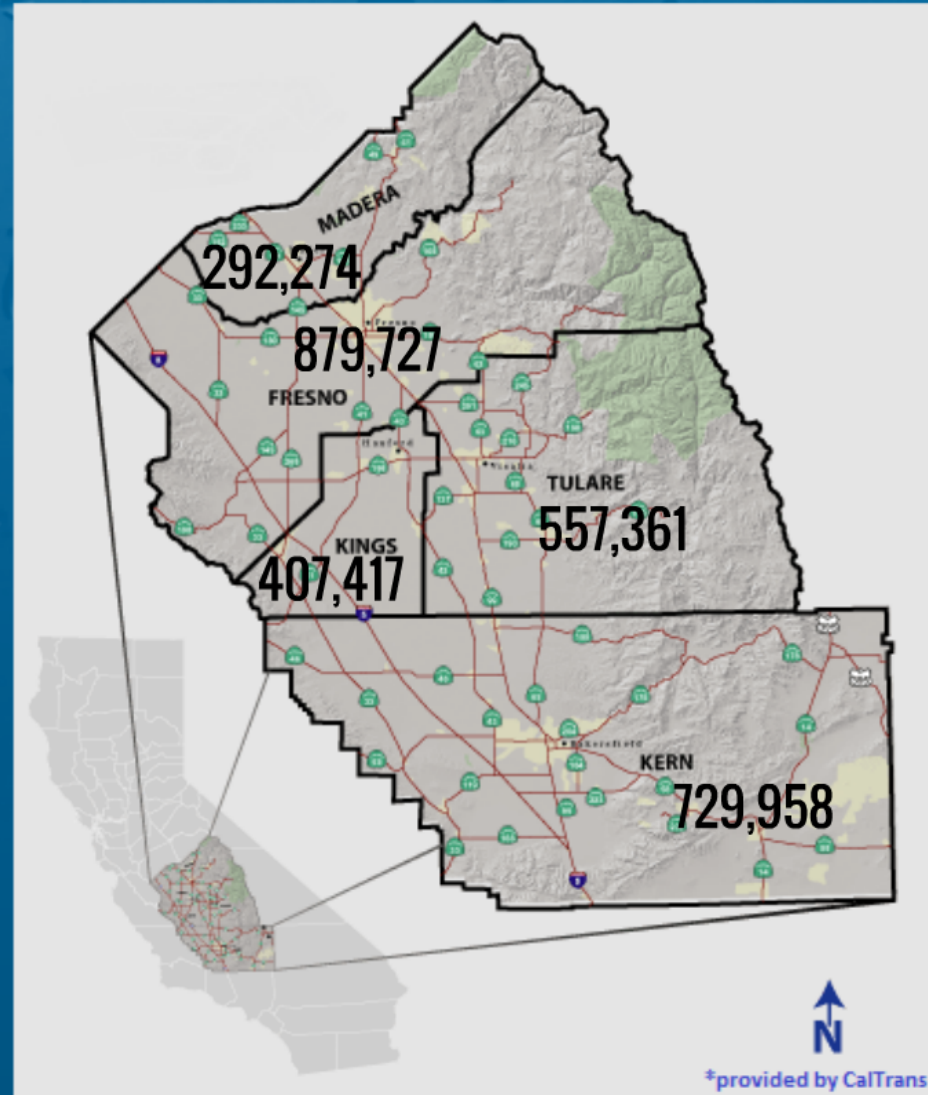
Doug Birnbaum



Sacramento Bee

Irrigated Land by County

(in acres)



TOTAL = 2,866,737 acres

Whitelands

 Irrigation district: public corporation with clear geographic boundaries and the power to tax members in order to acquire and distribute water

 Whitelands: land outside of an irrigation district's membership and geographic boundary


 Roughly 2.89 million irrigated acres in 5 county region

 2.2 million of these acres belong to a water district or irrigation district

 Remaining 700,000 acres do not belong to an irrigation district and can be classified as whitelands

 Whitelands do not receive surface supply and instead rely on groundwater

 Incoming state water regulations will prevent groundwater pumping and whitelands will essentially rely on rainfall

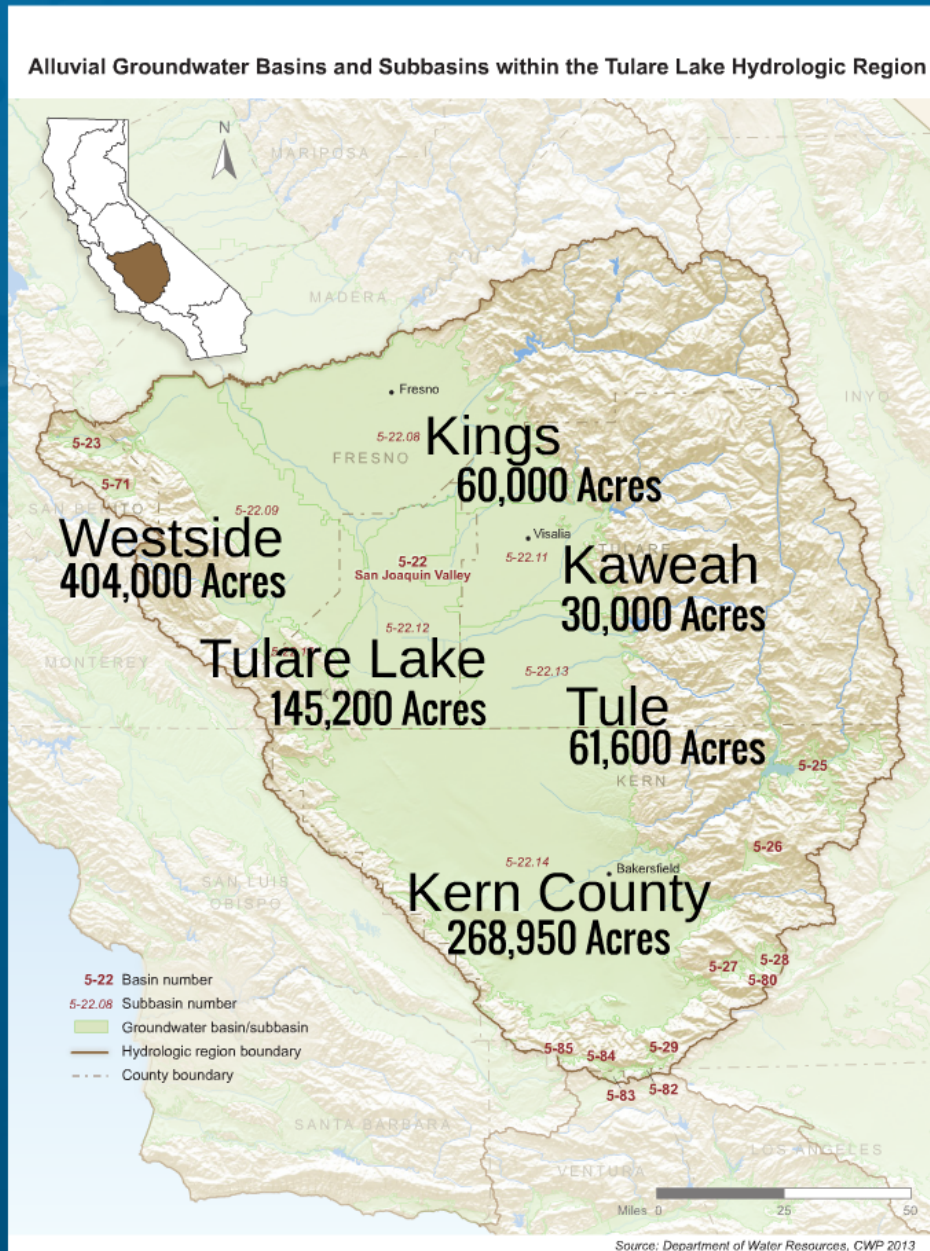
 Ex: SGMA requires sustainable pumping – with an average of 6 inches of rainfall, growers who farm whitelands would only be able to extract 1/2 AF of groundwater annually

Water Deficit in the San Joaquin Valley Sub-basins

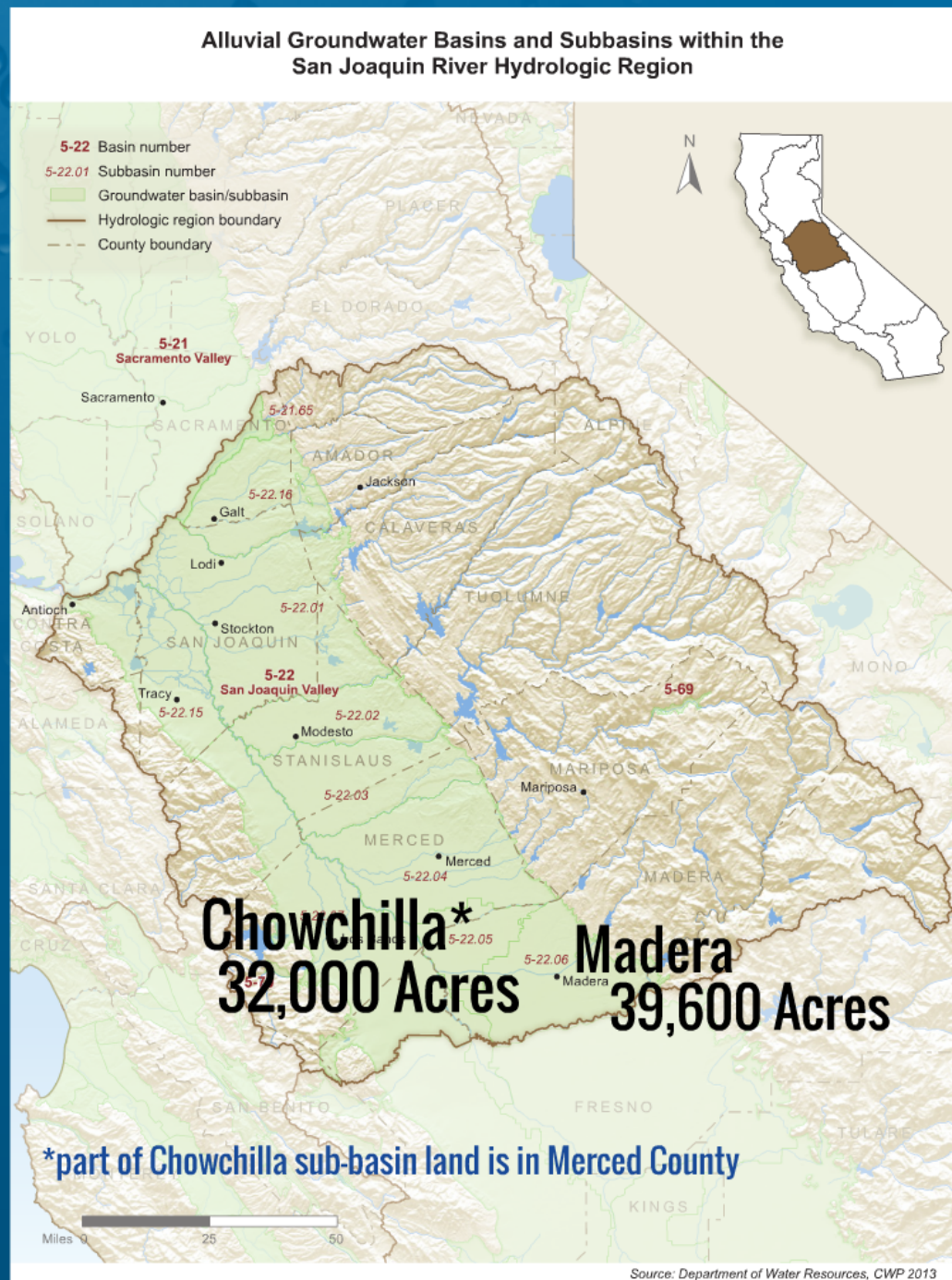
- 💧 Madera sub-basin = 99,000 AF
- 💧 Chowchilla sub-basin = 60,000 - 80,000 AF
- 💧 Kings sub-basin = 120,000 - 150,000 AF
- 💧 Tulare Lake sub-basin = 363,000 AF
- 💧 Kern County sub-basin = 672,374 AF
- 💧 Kaweah sub-basin = 75,000 AF
- 💧 Tule sub-basin = 154,000 AF
- 💧 Westside sub-basin = 1,010,000 AF

WATER DEFICIT = 2,603,374 AF

ACRES IN DANGER OF RETIREMENT



ACRES IN DANGER OF RETIREMENT



LAND RETIREMENT

(by sub-basin)

60,000 acres (Kings)

404,000 acres (Westside)

61,600 acres (Tule)

30,000 acres (Kaweah)

145,200 acres (Tulare Lake)

268,950 acres (Kern)

39,600 acres (Madera)

32,000 acres (Chowchilla)

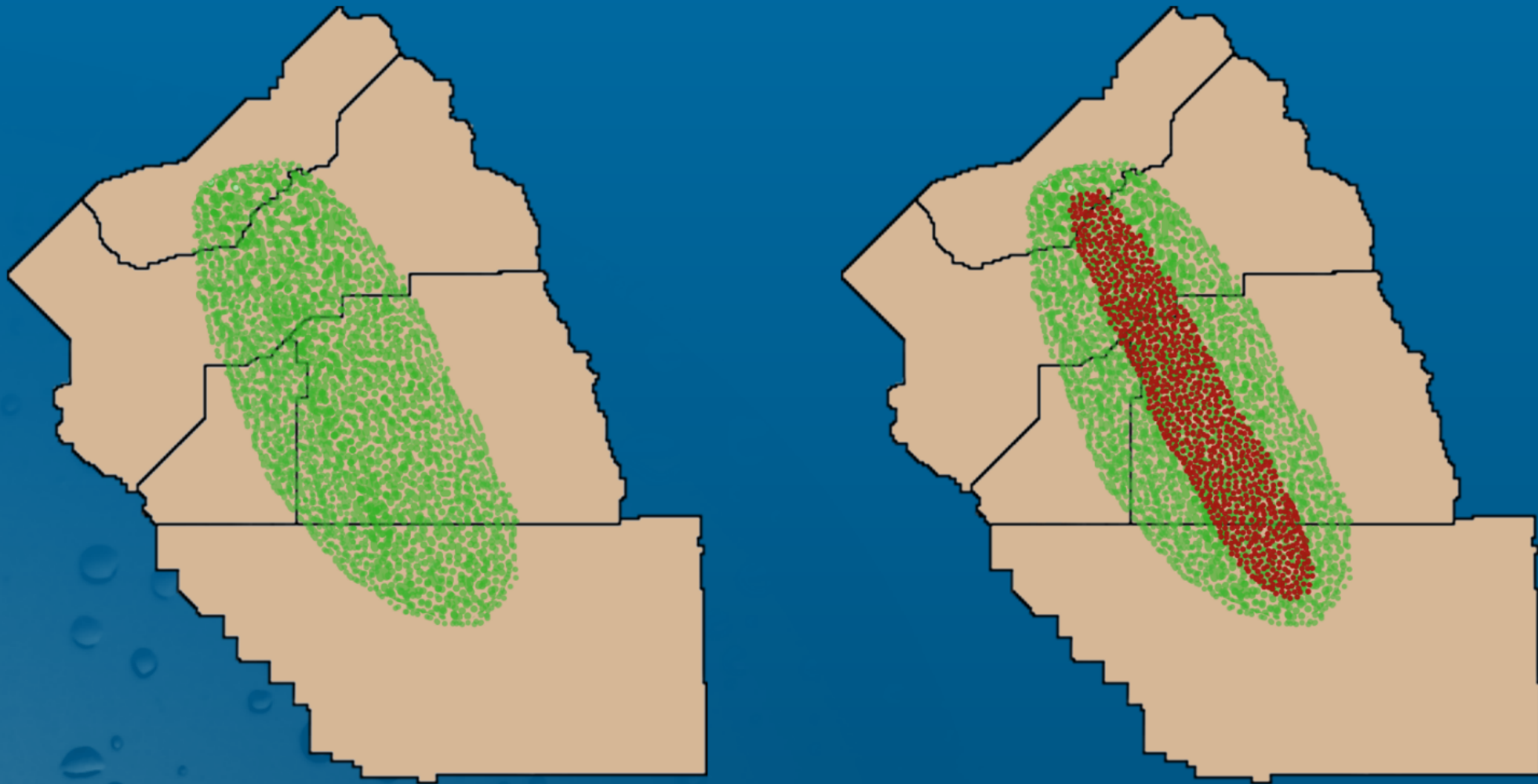
1,041,350

**acres in danger
of retirement
absent change**

Land in Danger

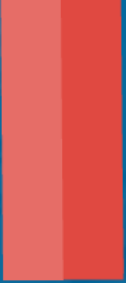
$$\frac{1,041,350 \text{ acres}}{2,866,737 \text{ total acres}} = 36\%$$

ACRES IN DANGER




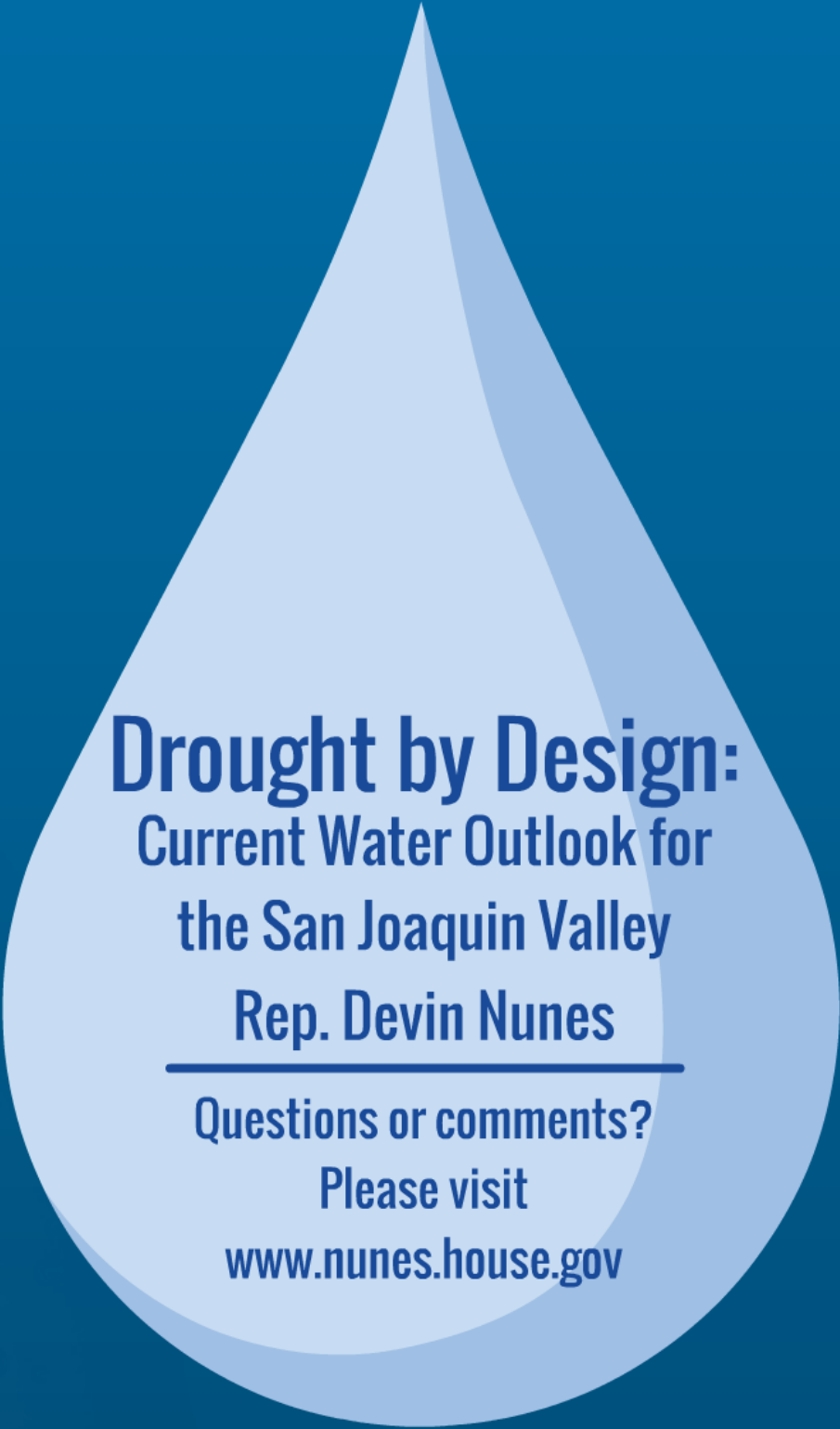
Green = irrigated land by acre

Red = representation of land in danger of retirement



These estimates represent approximate numbers. We encourage irrigation districts, county agencies, and state agencies to provide us quantified information that allows us to update and improve our numbers.





Drought by Design:
Current Water Outlook for
the San Joaquin Valley
Rep. Devin Nunes

Questions or comments?

Please visit

www.nunes.house.gov

Appendix 1. 2008 Letter to Friant Farmers

Congress of the United States
Washington, DC 20515

October 20, 2008

Dear Friant Farmer:

Despite objections by Chowchilla Water District, Madera and Tulare Irrigation Districts, the San Joaquin River Settlement will likely be passed by Congress in November. Friant negotiators eager for a deal are working closely with radical environmentalists and their allies in Congress to make certain their grossly manipulated plan becomes law.

Let me make one thing perfectly clear -- **this settlement does not end litigation**, despite statements by Friant suggesting this to be a “comprehensive” settlement. Not only can other radical organizations sue to attack farmers on the so called settled issue, this declared “comprehensive” settlement completely fails to address three other lawsuits concerning delta matters. These suits were filed at the behest of Friant’s radical environmental partners which directly impact Friant farmers. At this point, based on current litigation, court precedent, and dry water years, it is not inconceivable to see 800,000 acre-feet of water released from Friant in order to meet the senior water rights of the San Joaquin Exchange Contractors. This would be in addition to the required releases associated with the Settlement. Once again, let me make it clear that in no way does this settlement end litigation. In fact, when this policy is enacted, **I fully expect new lawsuits to be immediately filed seeking more water from Friant.**

Furthermore, this settlement does not provide water “certainty” as suggested by Friant officials. It “mandates” a cold water salmon fishery and commits farmers to a multi-billion dollar restoration project. This commitment exists whether or not the end goal is found to be reasonable or within our ability to accomplish. In fact, experts have made it clear that salmon will not return with 250,000 acre feet of water. For some reason, this fact has been ignored by Friant. Sadly, by the time the truth is accepted, **Congress, the President, and the Courts will have mandated a “salmon or bust” policy.** Water will be flowing and greater losses will be certain.

Moreover, these actions are being taken without regard to our region’s ground water crisis. At this time, there is a 400,000 acre feet over draft of our ground water resources on an annual basis. With the additional 250,000 acre feet loss from the San Joaquin River Settlement, this over draft would rise to 650,000 acre feet. Such an outcome is unsustainable for the long-term viability of our water supply. Continuing down this path could lead to the **falling of nearly 300,000 acres of land.** While some farmers will remain in business, others will fail. In my opinion, this does not equal “certainty,” unless Friant is suggesting that certain failure of some farming operations equals water supply certainty for those who remain.

Despite these long running concerns, recent developments have proven they are only the tip of the iceberg. Through the clear direction of Friant officials, farmers have already been made liable for a large financial portion of the Settlement. This liability will come through the extension of the Friant surcharge and new bonds to cover unfunded costs of the Settlement. These costs are far beyond the original scope and intent of the Settlement, yet there still remains **hundreds of millions of dollars of unfunded mandates within the Settlement.**

Appendix 1. 2008 Letter to Friant Farmers

To solve their funding problem, Friant officials have accepted an empty promise of future funding through the earmark process. This is despite the fact that presidential candidates have pledged to eliminate earmarks. If funding is not made available, farmers will end up picking up the tab for the entire cost of the Settlement. What was portrayed as a \$750 million settlement paid for by the Federal and State governments has turned into a multi-billion dollar boondoggle which may be entirely funded by Friant farmers. Through simple economics, it is not hard to see the cost of water quickly **exceeding \$100 an acre foot.**

With that said, it is important to reflect on Friant officials' statements that "this settlement is our only option and things will only get worse if we return to court." What was promised three years ago was freedom from future litigation, recovered water, and a restoration project funded by the government. This is simply not the case today. **It has turned into an overwhelming risk of future litigation, a loss of 250,000 acre feet of water with no possibility of recovery, and a restoration project largely funded by Friant farmers.** At this point, I would contend that returning to court would be the lesser of two evils. At least by returning to court, we retain the right to fight instead of a strategy of abject capitulation.

Finally, as the author of the legislation authorizing the Temperance Flat feasibility study, and in full recognition of the importance of new water storage in our state, I believe it is important to share with you a word of caution. If the San Joaquin River Settlement is implemented by Congress, Temperance Flat will be in danger of being deemed unfeasible. **Anyone who endorses this irresponsible water giveaway is helping to build the case against Temperance Flat** and will make our job even more difficult as we fight for construction of the new reservoir.

The power to stop this process and hold Friant officials and political leaders accountable rests in your hands. Whatever you do with this power, you must be willing to live with the consequences.

Best regards,



Devin Nunes
Member of Congress

DEVIN NUNES
22ND DISTRICT, CALIFORNIA

COMMITTEE ON WAYS AND MEANS

PERMANENT SELECT COMMITTEE
ON INTELLIGENCE

ASSISTANT MAJORITY WHIP



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VISALIA, CA 93291
(559) 733-3861

264 CLOVIS AVENUE
SUITE 206
CLOVIS, CA 95612
(559) 323-5235

WWW.NUNES.HOUSE.GOV

January 8, 2014

Dear Friend:

I take this opportunity to send you a letter I mailed to all Friant farmers in 2008 that outlined an unfolding threat to Eastside water supplies: the San Joaquin River Settlement.

Despite dire warnings, Friant officials supported passage of the settlement. This disastrous law, enacted in 2009 by Congress with support from then-Speaker Nancy Pelosi and Senator Dianne Feinstein, confiscated roughly 250,000 acre feet of your water annually to ensure that 500 salmon can swim in the San Joaquin River. This legislation transformed periodic water shortages in the San Joaquin Valley's Eastside into a permanent drought.

I opposed this law then and I remain opposed today. But Friant officials defend the damaging water giveaway and even opposed a legislative fix: the Sacramento-San Joaquin Valley Water Reliability Act (H.R. 1837). That bill, which passed the House of Representatives but stalled in the Democrat-controlled Senate, would have restored Eastside water deliveries, reformed the Central Valley Project Improvement Act (CVPIA, originally known as the George Miller/Bill Bradley bill), and restored pumping out of the delta.

We now have three options for dealing with this situation:

1. Resolving to support H.R. 1837, Friant builds a coalition of all water districts, city councils, and counties from Redding to Bakersfield. This coalition then urges the U.S. Senate to enact the reforms included in H.R. 1837.
2. We keep the status quo, which would perpetuate surface water shortages and the overdraft of the aquifer. Economics would dictate that farmers who have the most money and can drill the deepest wells could hold out the longest before their land is forced out of production.
3. Radical environmental groups want to retire 1.3 million acres of productive farmland from Merced to Bakersfield. Friant landowners could endorse this demand and start a permanent land retirement program.

I prefer the first option. If you can devise a better solution, then please share it with me by email (through my website, www.nunes.house.gov), phone (202-225-2523), or fax (202-225-3404).

Sincerely,



Devin Nunes
Member of Congress

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