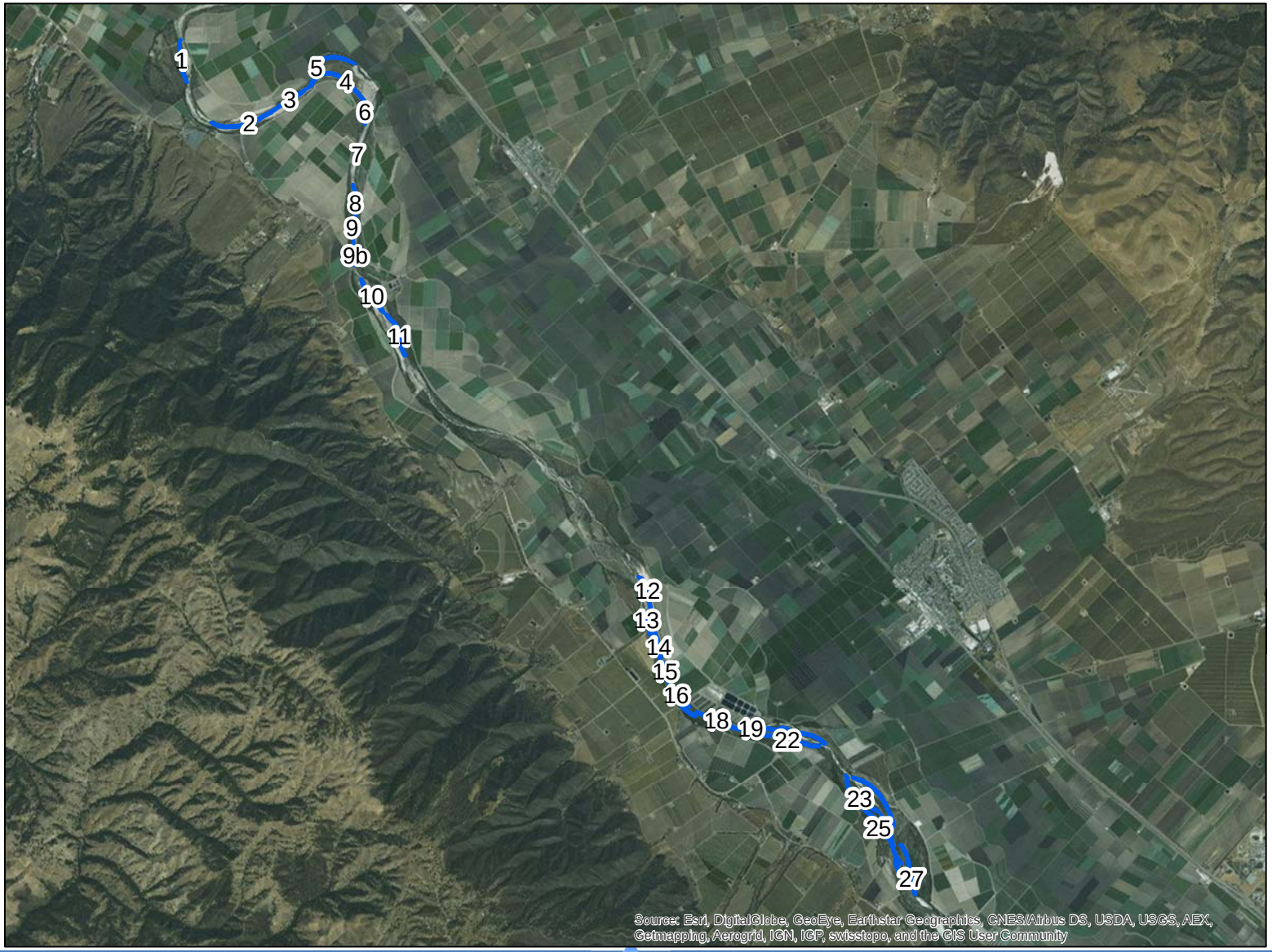
Update on the Salinas River Stream Maintenance Program

Phase 1- Implementation

Phase 2 - Design & Permitting

Phase 1: Chualar and Gonzales RMUs



Phase 1: Chualar and Gonzales RMUs

- 5-year permit and program conditions:
  - Annual Work Plan proposing each activity
  - Annual training of participants/operators
  - Pre-construction staking of work and avoidance areas
  - Pre-construction biological surveys
  - On-site biological monitor during work
  - Daily inspections by MCWRA staff to ensure compliance
  - Annual reporting of actual work impacts and successes

Phase 1: Chualar and Gonzales RMUs

- 5-year permit began Oct. 2014
- Year 1 work included:
  - Construction of 19 secondary channels
  - Removal of 53.1 acres of Arundo
- Year 2 Work Plan includes:
  - Construct 4 new secondary channels
  - Retreat 13 secondary channels
  - Plant 45 cottonwood, alder or sycamore trees
  - Retreat 61.8 acres of Arundo regrowth
  - Remove 12.2 acres of Arundo
  - Remove 15,000 CY of sediment

Phase 2 – new RMUs

- November 2014: finished Demonstration maintenance season
- January-March 2015: reviewed the process and outcomes with participants and regulatory agencies
- January – April 2015: RMU development and Permitting Strategy
- April 2015: met with cities and municipalities
- June 2015: completed 2D flood model
- July 2015: first Technical & Design Committee meetings with potential participants

Phase 2 – new RMUs

- **RMU 1: San Ardo to King City**
- **RMU 2: Greenfield**
- **RMU 3: Soledad**
- RMU 4: Gonzales
- RMU 5: Chualar
- **RMU 6: Constrained 1**
- **RMU 7: Constrained 2**

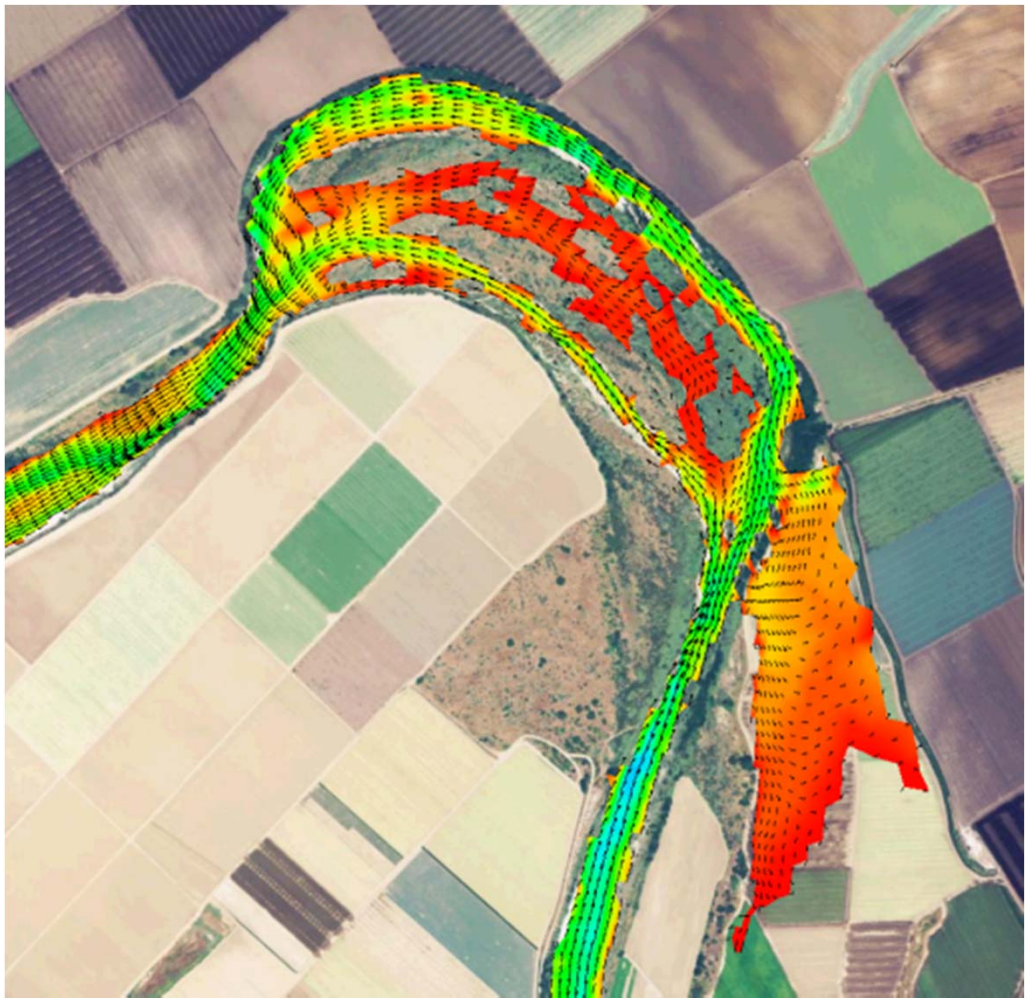
Phase 2 – new RMUs

2D Flood Model

- New model developed by US Army Corps of Engineers – beta versions tested by consultant
- Represents Salinas Valley as 3D surface, with varying “roughness” based on vegetation
- Water input at a given flow rate
- Model simulates flow of water through valley
- Depth, velocity, and other parameters

Modeling the Salinas River

- Salinas often overflows its banks (lateral flows)
- Salinas is partially leveed (flow around/behind levees)
- Flooding can occur as backwater flowing upstream onto farmland (upstream flows)
- Channel is often braided with multiple flow paths (split flows)

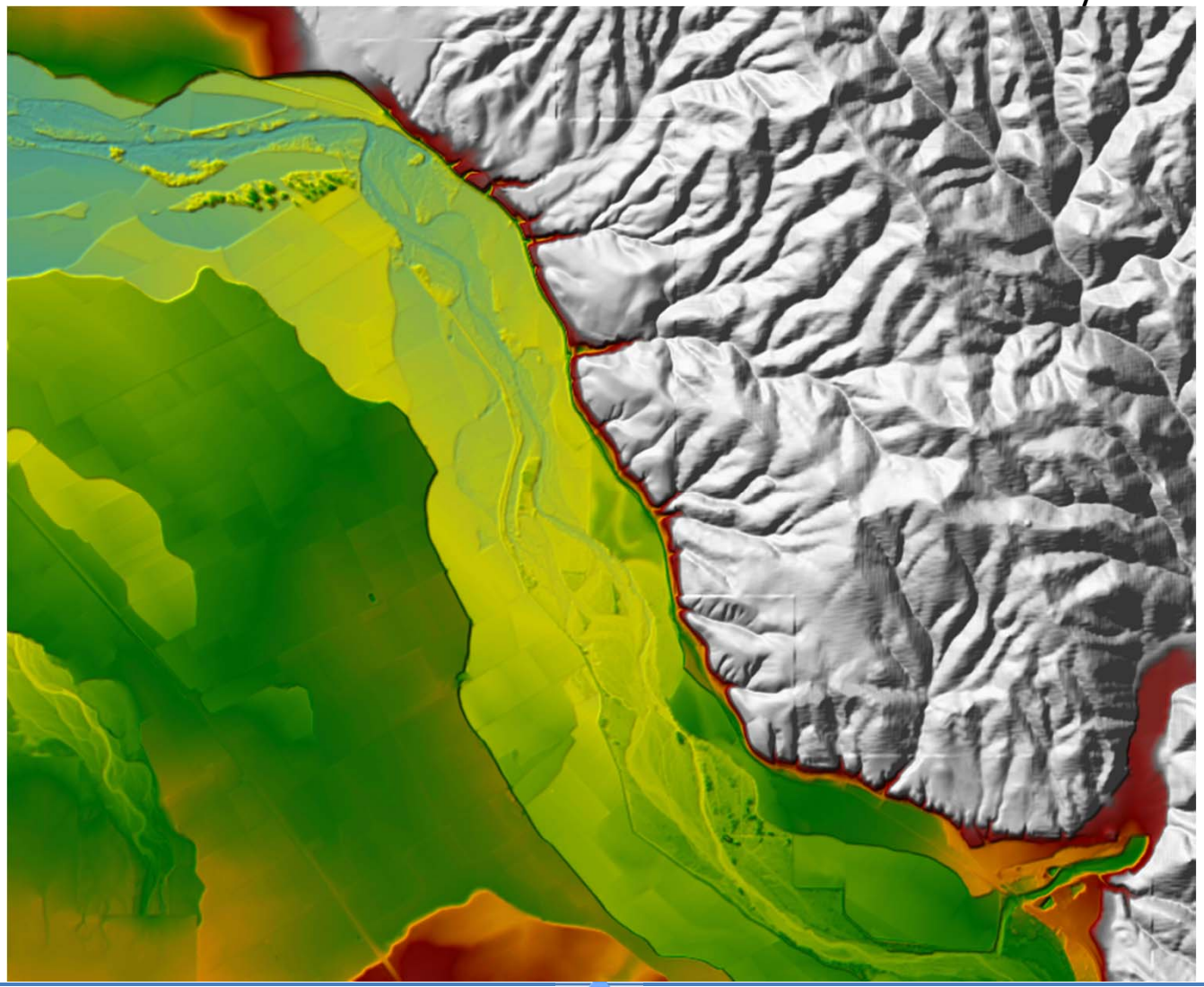


Flood Model Limitations

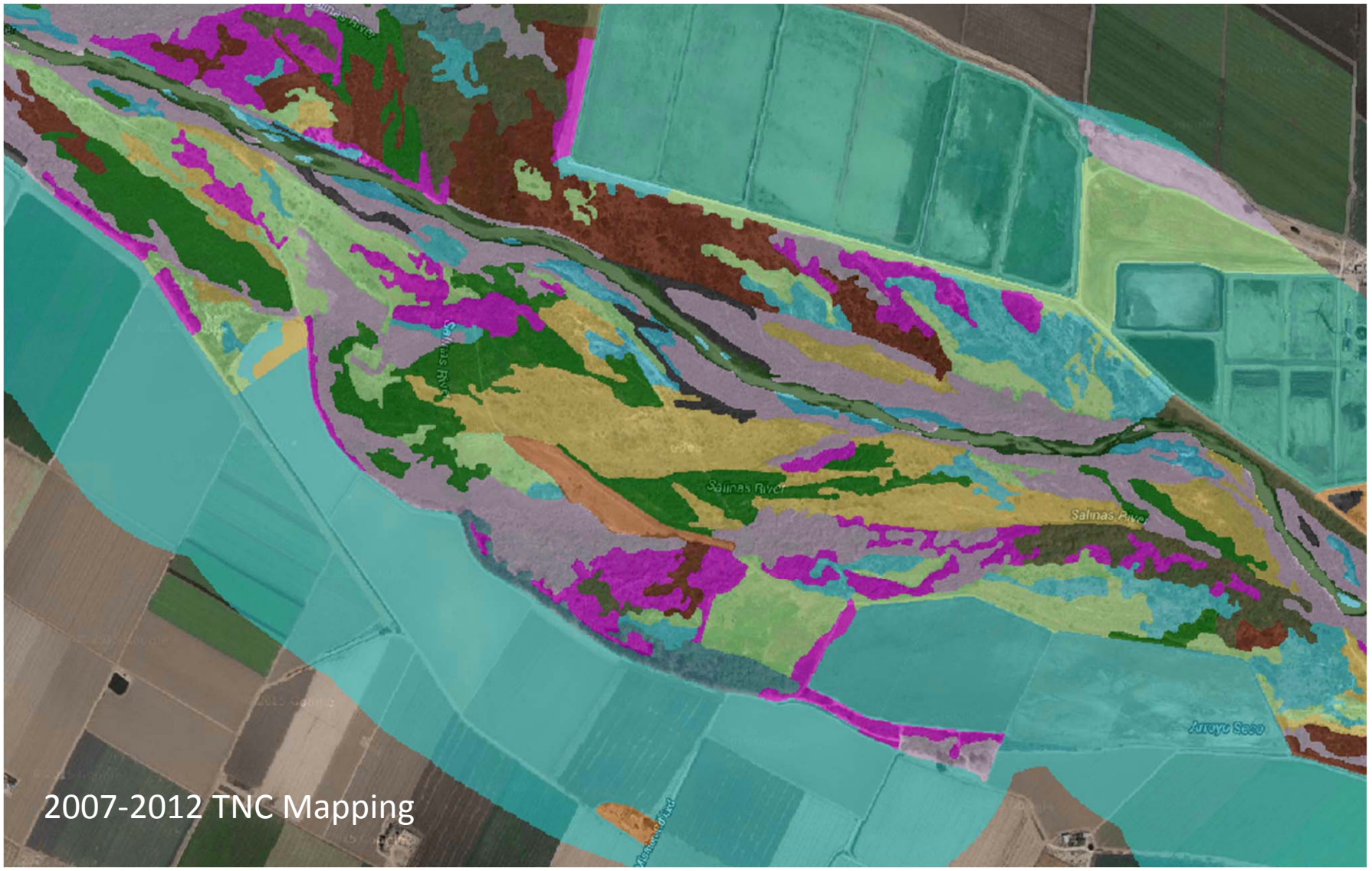
- Model is only as good as input data
- Covers 100 river miles; cannot be 100% accurate in every location
- Focus on moderate flows rather than catastrophic floods
- Does not simulate losses to aquifer
- Not calibrated; accurate to +/- inches to a foot at gage locations

Flood Model Inputs: Topography

2010 County LiDAR



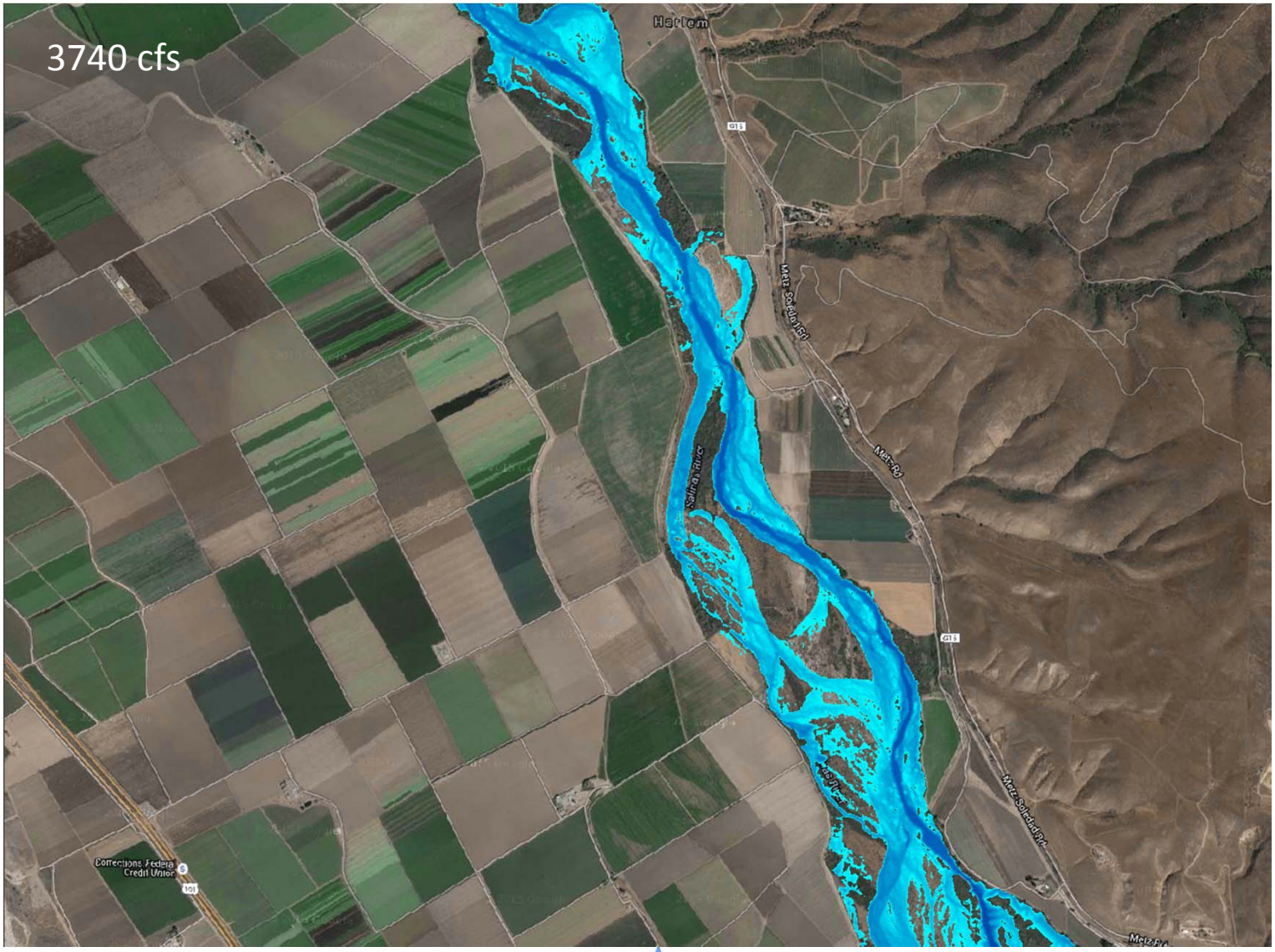
Flood Model Inputs: Vegetation



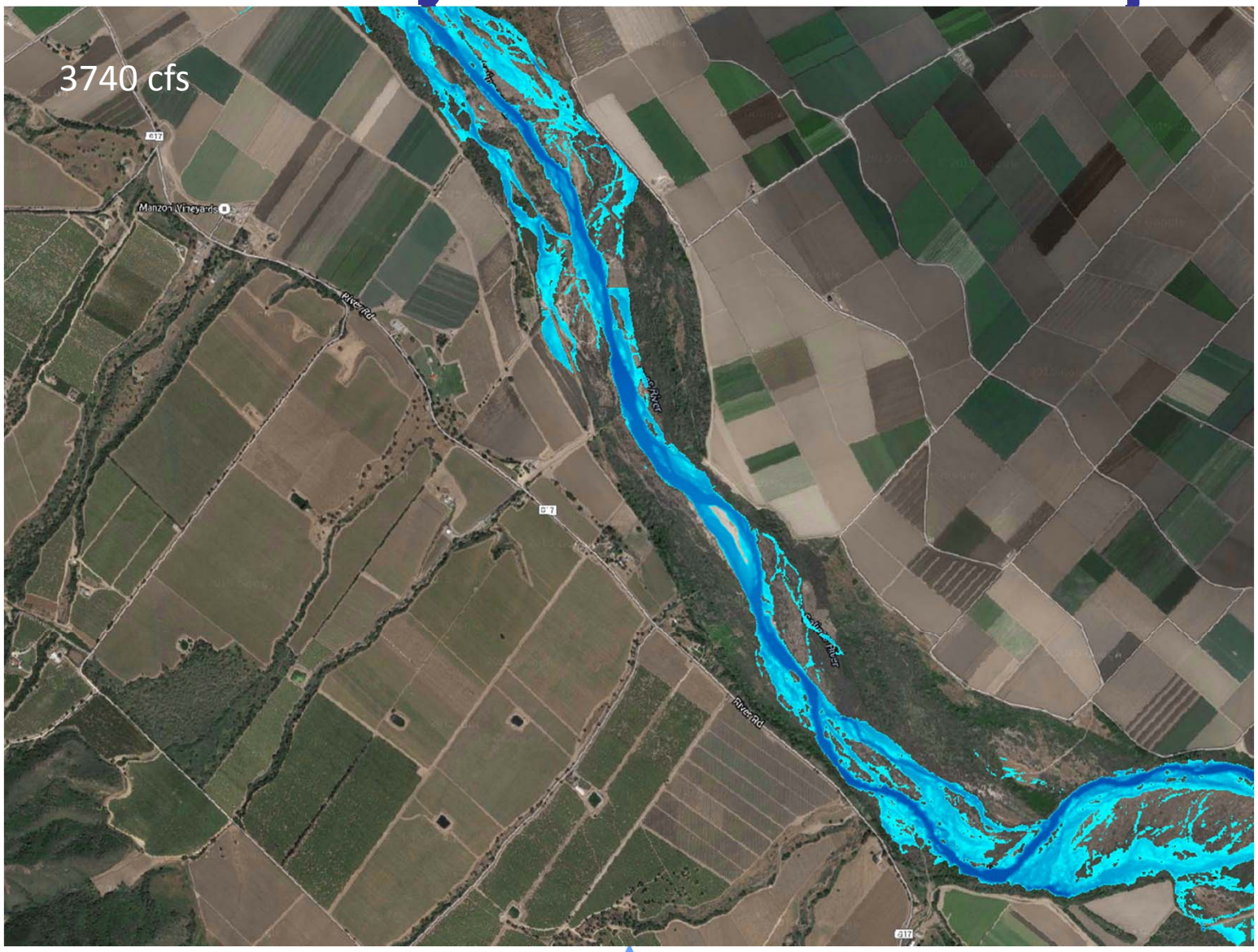
Flood Model Inputs: Flow (CFS)

Location	50% Flow Event	Similar to 2011 Flow Event	20% Flow Event	10% Flow Event
Selected Flow at Bradley	3740	12490	18550	22000
Addition at San Lorenzo	0	0	0	5000
Resulting Flow at Soledad	3740	12490	18550	27000
Addition at Arroyo Seco	0	0	6900	15800
Resulting Flow At Chualar	3740	12490	25450	42800
	Dec 1983 Feb 2000 Jan 2010	Mar 2001 Apr 2006 Mar 2011	Jan 1997 Feb 1993	Feb 1998

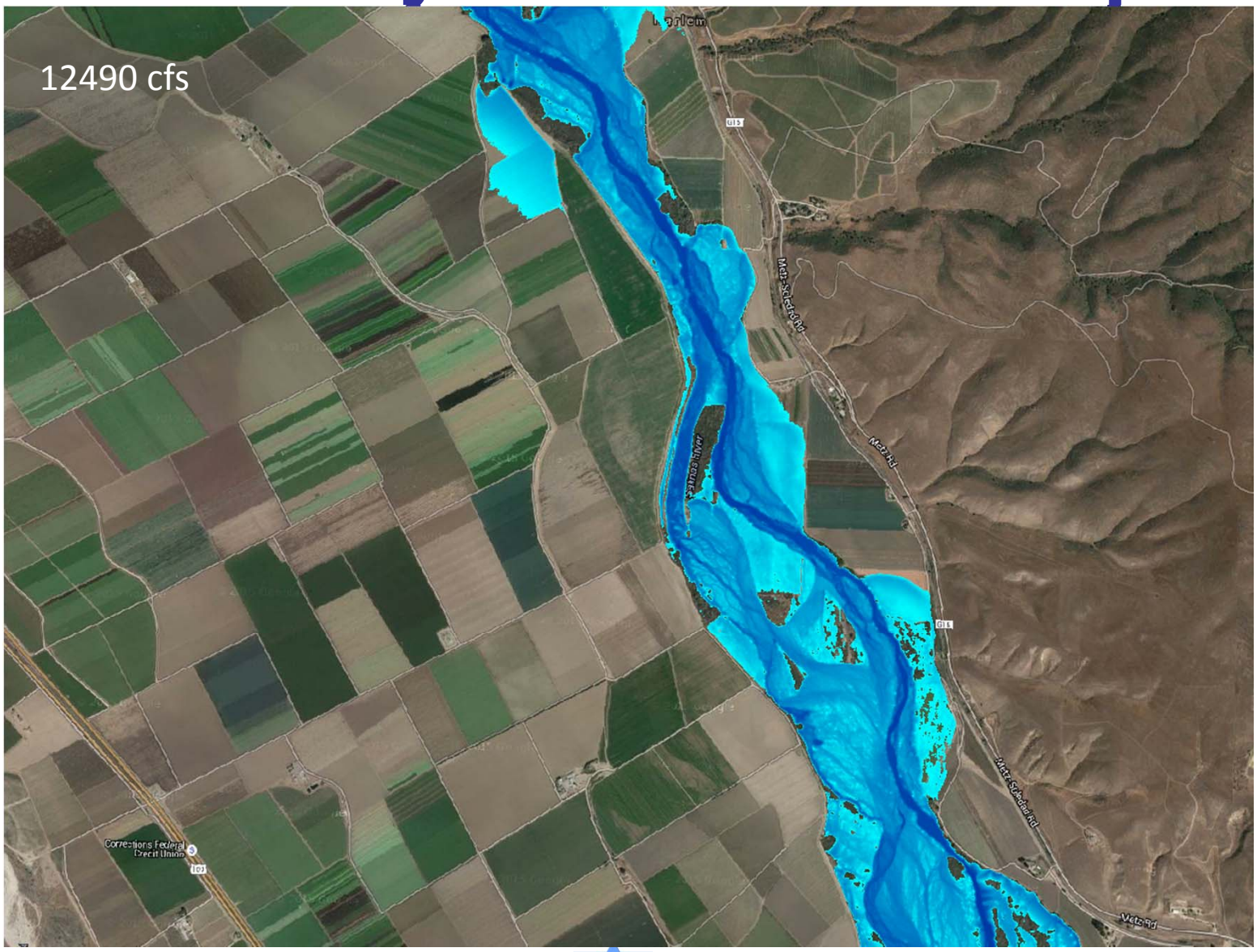
Preliminary Flood Model Output



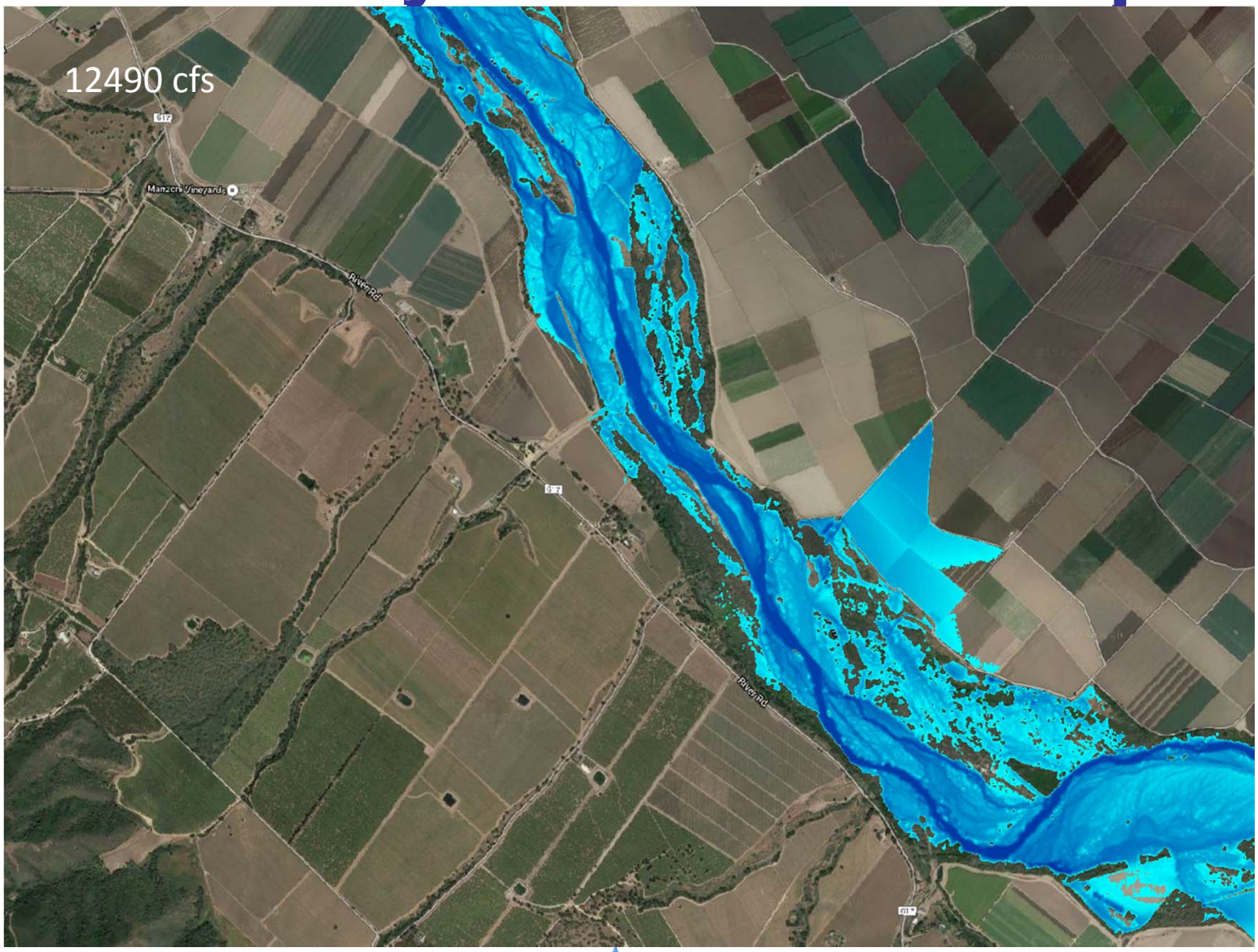
Preliminary Flood Model Output



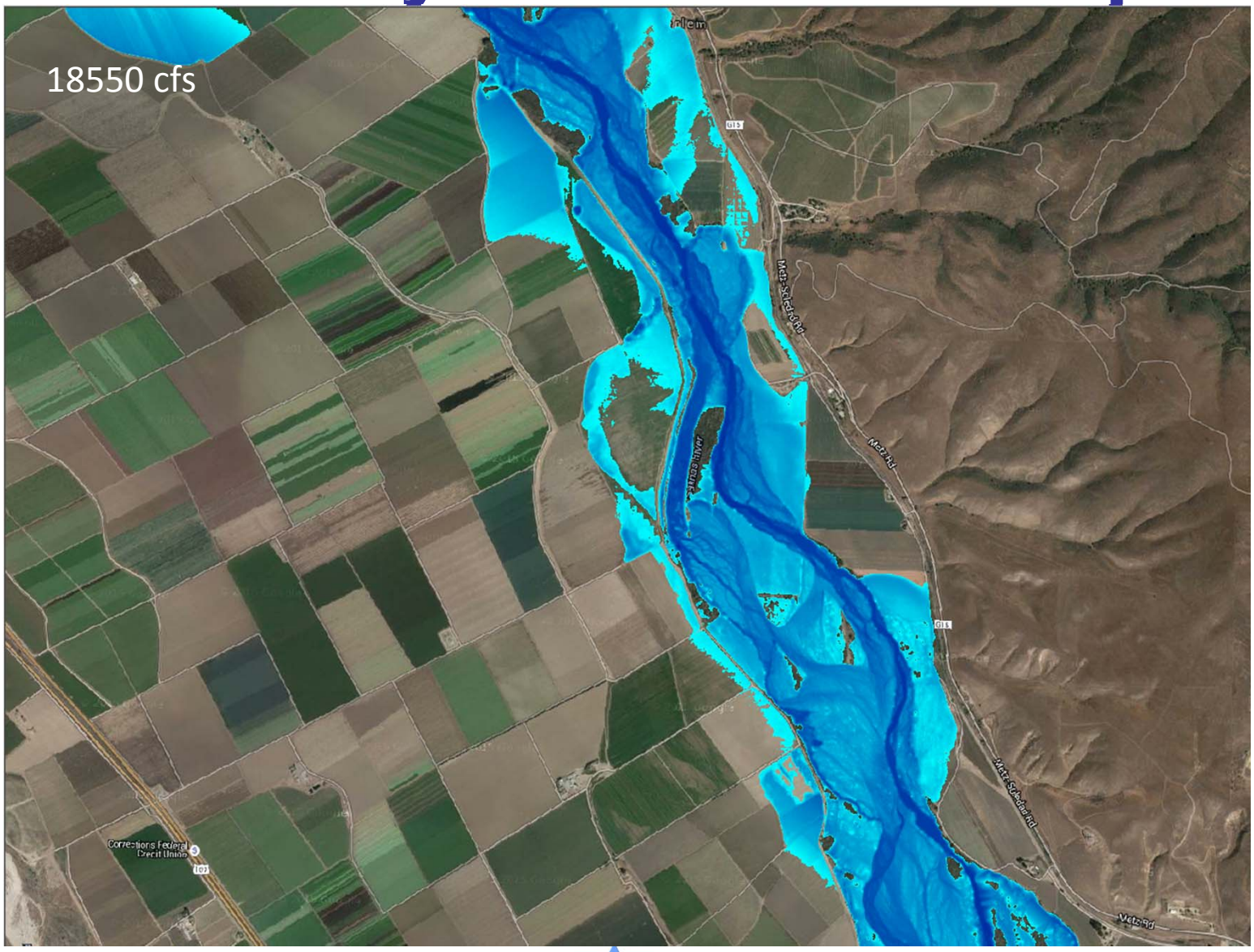
Preliminary Flood Model Output



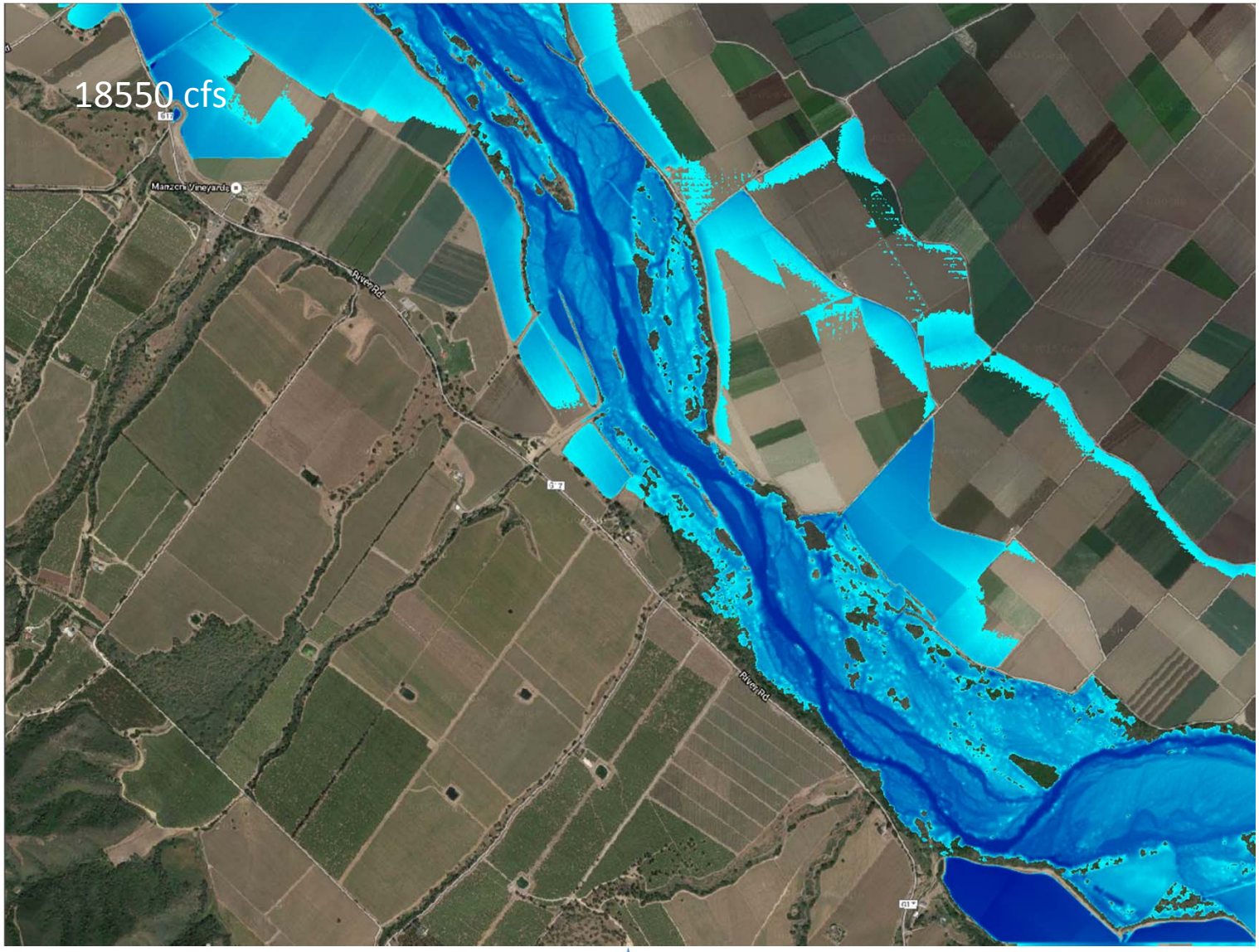
Preliminary Flood Model Output



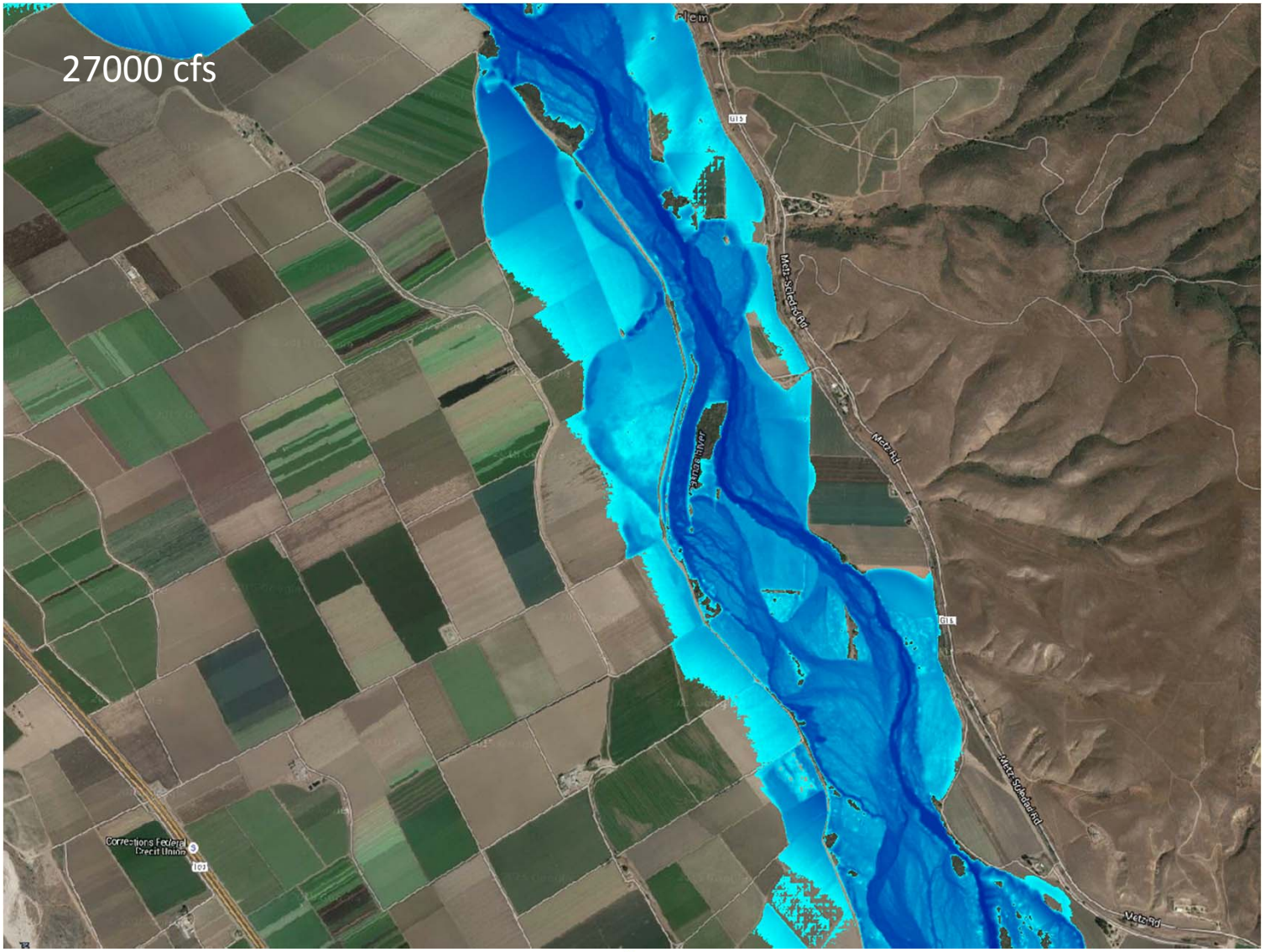
Preliminary Flood Model Output



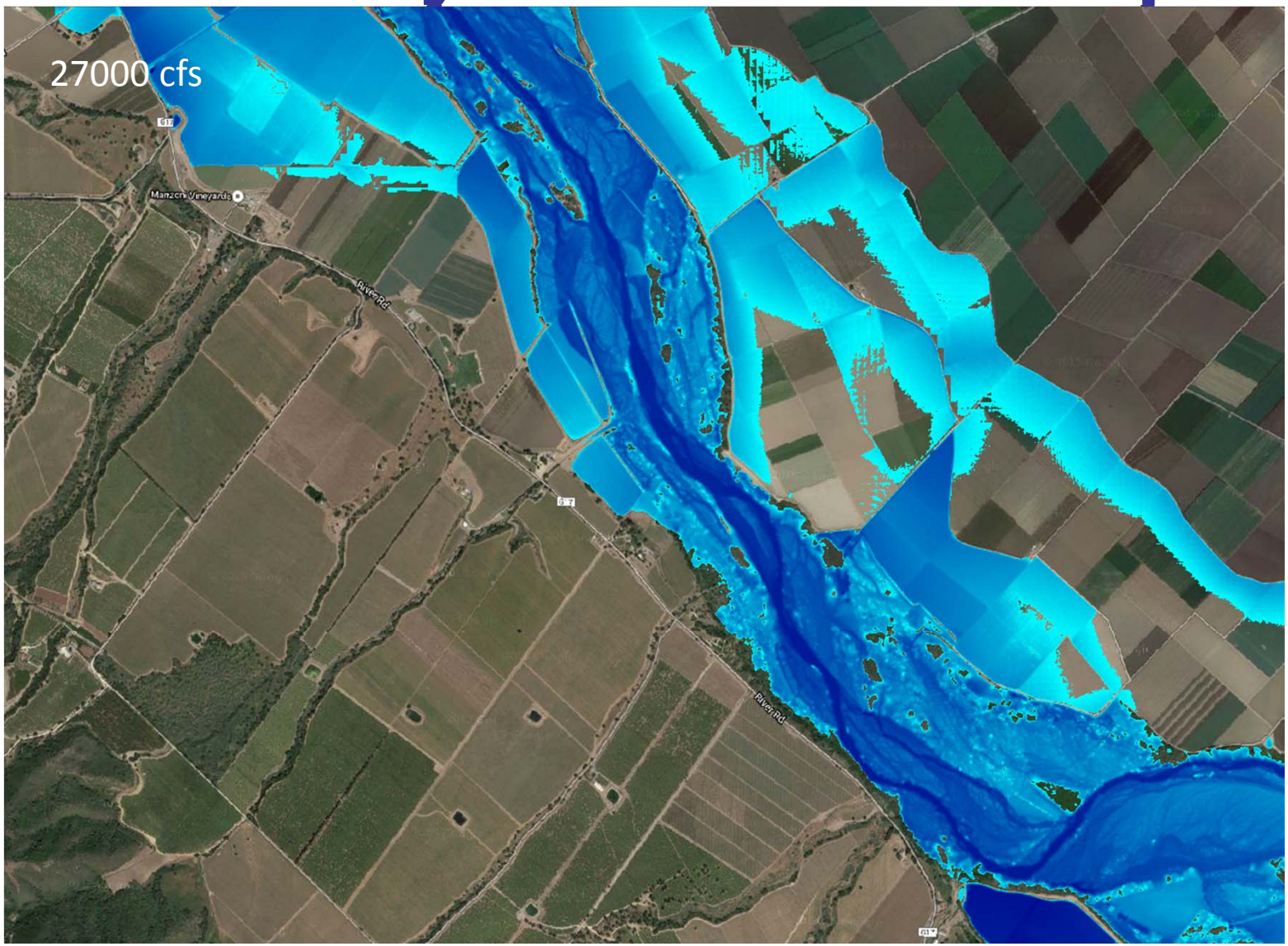
Preliminary Flood Model Output



Preliminary Flood Model Output



Preliminary Flood Model Output



Technical & Design Committee

Total of 3 meetings per RMU happening now:

- Refine flood model and site specific data
- Finalize river management unit boundaries
- Identify flood risk reduction objectives
- Identify probable costs and benefits
- Identify habitat conditions to be retained
- Identify *Arundo* removal objectives
- Conduct modeling for identified maintenance activities and resulting flood conveyance goal

Program Process

- Technical & Design Committee (thru Sept. 2015)
- Permitting Committee (Fall 2015)
- Application for permits (December 2015)
- Work commences (October 2016)

Funding Sources

- Flood Model: TNC ~ $85,000 and Coastal Conservancy IWRP funding $65,000
- Baseline surveys and reporting, permitting support, program coordination, modeling iterations: Coastal Conservancy Climate Ready grant $276,000
- Staff time associated with this project is included in the FY 15-16 Adopted Budget for the MCWRA
- Permit package materials will need alternative sources or another fiscal year to be fully funded


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S PRESENTATION

The Sustainable Groundwater Management Act – Where we are…

Discussion

- On September 16, 2014, Governor Brown signed into law the Sustainable Groundwater Management Act (SGMA)

- SGMA became effective January 1, 2015, establishing a new paradigm for management of the state's groundwater

Discussion (cont.)

- Current Drought has worsened a growing groundwater crisis
  - Groundwater crisis just won't go away
  - Groundwater regulation is by far the most controversial issue in California today

- Inconvenient Truths
  - Crisis is real
  - Legislation was inevitable

Discussion (cont.)

- SGMA focuses on:
  - Sustainable groundwater management:
    - The management and use of groundwater in a manner that can be maintained over a 50-year period without causing undesirable results
  - Development of Groundwater Sustainability Agency
  - Development of Groundwater Sustainability Plans

Discussion (cont.)

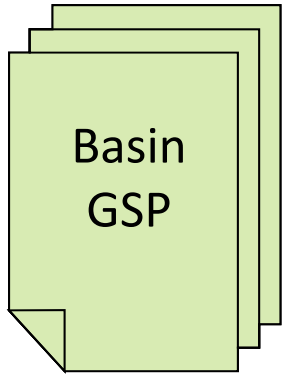
- Undesirable results are defined as:
  - Chronic lowering of groundwater levels (not including overdraft during a drought if a basin is otherwise managed).
  - Significant and unreasonable reduction of groundwater storage.
  - Significant and unreasonable seawater intrusion.
  - Significant and unreasonable degraded water quality.
  - Significant and unreasonable land subsidence.
  - Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of surface water.

Discussion (cont.)

- Groundwater Sustainability Agencies:
  - Salinas Valley Basin eligible local agencies:
    - County
    - WRA
    - Cities of Salinas, Soledad, Gonzales, Greenfield, & King
    - Marina Coast, San Ardo, & San Lucas Water Districts
    - Community Services Districts (to the extent water supply authority exercised)
    - Cal Water (with permission)
    - Uncertainty regarding Seaside, Del Rey Oaks, Sand City, Monterey & MPWMD

Discussion (cont.)

- Groundwater Sustainability Plans:
  - May be a single plan implemented by a single agency
  - May be a single plan implemented by multiple agencies
  - May be multiple plans implemented by multiple agencies and coordinated by agreement



Discussion (cont.)

Time Frame for Successful Implementation

Time	Action	
6/30/2017	Formation of GSAs	☑
1/31/2020	Completion of GSPs in critically overdrafted basins	☑
1/31/2022	Completion of GSPs in all other basins	☑
20-year implementation period	Implementation of GSPs under local management	☑

Checking these boxes shields local managers from state intervention

Prior BOD / BOS Action

- October 21 – County Counsel provided an informational presentation on the Sustainable Groundwater Management Act (SGMA)
- October 27 – WRA BOD recommended that the WRA become the Groundwater Sustainability Agency (GSA)
- October 28 – WRA BOS recommended a public process to gain stakeholder input
- December 10 – WRA BOS / BOD recommended WRA move forward with the public process

Other Actions Taken

- Public Process initiated
  - Three public meetings in January

- Subsequently, a more robust “Facilitated Process” was requested
  - Consortium of entities was formed to select facilitator
    - County
    - WRA
    - Valley Mayors’ Representative
    - Grower-Shipper Association
    - Farm Bureau
    - Salinas Valley Water Coalition

Other Actions Taken (cont.)

- Status of "Facilitated Process"
  - RFQs were released
  - Received seven proposals – three firms were selected to be interviewed
  - Interviews held July 15
  - Final selection to take place week of July 27th

Summary

- New paradigm for groundwater management
- Lots of details still being worked out
- Definite deadlines for basin priorities and plan development
- Work has been initiated on a public process to work determine the Salinas Valley GSA

TODAY'S PRESENTATION

The Sustainable Groundwater Management Act – Where we are…


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving and Recommending that the Monterey County Water Resources Agency Board of Supervisors Approve Budget Amendment No. 1 Authorizing the Auditor-Controller to Amend the Monterey County Water Resources Agency's FY 2015-16 Adopted Budget to Include the Regional Desalination Settlement Received from Cal-am in the Amount of $764,557 and Increase Appropriations by $712,415 in the Following Agency Funds: 113, 114, 115, 122, 130 and 134 that Were Needed to Support Hydrology and Water Quality Programs and Increased Legal Expenses

Committee Action

- No Committee Action to report

Financial Impact

- This action transferred a total of $764,557 to the following funds:

Fund	Dept	Unit	Program	App Unit	Account	Amount
112	9300	8267		WRA002	5870	9,632.51
113	9300	8267		WRA003	5870	227,114.86
114	9300	8267		WRA004	5870	123,874.76
115	9300	8267		WRA005	5870	107,199.70
116	9300	8267	2COPTN	WRA006	5870	55,218.92
116	9300	8267	2CADMN	WRA006	5870	3,830.60
117	9300	8267		WRA007	5870	2,461.36
118	9300	8267		WRA008	5870	6,269.68
119	9300	8267		WRA009	5870	3,785.80
120	9300	8267		WRA010	5870	333.86
121	9300	8267		WRA011	5870	3,404.98
122	9300	8267		WRA012	5870	30,129.60
123	9300	8267		WRA013	5870	498.17
124	9300	8267		WRA014	5870	4,021.37
126	9300	8267		WRA016	5870	285.28
127	9300	8267		WRA017	5870	1,568.08
128	9300	8267		WRA018	5870	3,725.69
129	9300	8267		WRA019	5870	739.13
130	9300	8267		WRA022	5870	56,387.05
131	9300	8267		WRA020	5870	11,021.38
134	9300	8267		WRA028	5870	112,494.16
134	9300	8267		WRA028	5870	560.06
TOTAL:						764,557.00

Discussion

- The recommended FY 2015-16 Budget requested to borrow approximately $400,000 from the RSR.
- The recently received $764,557 Cal-Am settlement eliminates the need to borrow from the RSR.

Discussion (cont.)

- The budget amendment in this Board Order augments $712,415 of the total $764,557 to the following funds:
  - Fund 113 **$227,114**
  - Fund 114 **$123,874**
  - Fund 115 **$107,199**
  - Fund 116 **$55,218**
  - Fund 122 **$30,129**
  - Fund 130 **$56,387**
  - Fund 134 **$112,494**

Summary

- Next steps: the Agency is currently in the process of requesting from the County Auditor-Controller to move the remaining Cal-Am settlement amount of $644,290 from an escrow account to the Agency.
- The outcome of this request will be presented at the August Finance Committee and BOD meeting.

TODAY'S ACTION

Approve and Recommend that the Monterey County Water Resources Agency Board of Supervisors Approve Budget Amendment No. 1 Authorizing the Auditor-Controller to Amend the Monterey County Water Resources Agency's FY 2015-16 Adopted Budget to Include the Regional Desalination Settlement Received from Cal-am in the Amount of $764,557 and Increase Appropriations by $712,415 in the Following Agency Funds: 113, 114, 115, 122, 130 and 134 that Were Needed to Support Hydrology and Water Quality Programs and Increased Legal Expenses


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving a Professional Services Agreement with Obermeyer Hydro, Inc. in the Amount of $35,216 for Modification to the Nacimiento Dam Inflatable Spillway Gates and the Salinas River Diversion Facility Inflatable Gates; and, Authorizing the General Manager to Execute the Agreement

Prior BOD Action

- None

Committee Action

- None

Financial Impact

Maximum amount payable: $35,216

- $27,716 payable from Fund 116 – Nacimiento Dam O&M
- $1,500 payable from Fund 134 – Salinas River Diversion Facility O&M
- Up to $6,000 may be payable from Fund 116 and/or Fund 134 for as-needed services at either location over the two-year Agreement term

Discussion

- The Calif. Dept. of Water Resources, Division of Safety of Dams (DSOD) requires nine modifications to the Nacimiento Dam inflatable spillway gates
- Resulting from lessons learned by DSOD from incidents at other dams
- There have been no operational or structural problems with the Nacimiento Dam inflatable spillway gates
- DSOD and MCWRA want to ensure safe operability of the Nacimiento Dam inflatable spillway gates
- This action addresses two DSOD requirements

Discussion (cont.)

- The inflatable gates and controls for both Nacimiento Dam and SRDF originally provided by Obermeyer Hydro, Inc.
- Consistency of work with the original manufacturer desired
- Modifications to the Nacimiento Dam inflatable spillway gate system:
  - Furnish and install one additional reservoir water level transducer
  - Revise control programming to:
    - Incorporate use of two reservoir water level transducers
    - Provide secure remote data monitoring and alarm transmission
    - Add additional alarms
    - Provide alarm transmission to remote devices
  - Calibrate the spillway gate flow equation
  - Determine and install means of regulating the gate descent rate
  - Incorporate existing non-Obermeyer alarms into remote data and alarm monitoring & transmission
  - Conduct system start-up and provide operator training

Discussion (cont.)

- Modification to the SRDF inflatable gate system:
  - Add alarms to notify operators of maximum water level and flow limitations

- Two year Agreement term (ending June 30, 2017)

- $6,000 included for as-needed services for other repairs or modifications that may arise. Up to this amount would be payable from Fund 116 (Nacimiento Dam O&M) and/or Fund 134 (SRDF O&M), but does not exceed $6,000 total.

TODAY'S ACTION

Approve a Professional Services Agreement with Obermeyer Hydro, Inc. in the Amount of $35,216 for Modification to the Nacimiento Dam Inflatable Spillway Gates and the Salinas River Diversion Facility Inflatable Gates; and, Authorize the General Manager to Execute the Agreement


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving and Recommending that the Monterey County Water Resources Agency Board of Supervisors Approve $250,000 an Initial Payment Identified In the Federal Cost Share Agreement (FCSA) Executed by this Agency, U.S. Army Corps of Engineers (Corps) and Santa Cruz County Flood Control and Water Conservation District to Complete the General Reevaluation Report/Environmental Impact Statement (GRR) for the Pajaro River Flood Risk Reduction Project; and Request Said Funds be Transferred Directly to the U.S. Army Corps of Engineers (Corps)

Prior BOD Action

- Recommended to the Board of Supervisors to negotiate and re-enter into a Federal Cost Share Agreement (FCSA) with the Corps and Santa Cruz County Flood Control and Water Conservation District at the April 28, 2014 meeting.
- Recommended that the Board of Supervisors jointly approve the FCSA and authorize the General Manager to execute said agreement at the March 24, 2015 meeting.

Committee Action

- None

Financial Impact

- Fund 112, Appropriation Unit WRA002

Discussion

- In November 2007 the Non-Federal Sponsors (NFS) entered into a Design Agreement with COE to conduct preliminary engineering and design and economic and environmental analyses as part of the General Reevaluation Report (GRR).
- The maximum total design costs were $10.8 million, cost shared at a 75 percent federal to 25 percent ratio. A total of $2.7 million has been paid by the Agency and County directly and with in-kind services. All costs have been reimbursed through Propositions 1E and 50.

Discussion

- NFS determined that the economic analysis and level of protection in certain reaches identified were inadequate and required additional analysis.
- Maximum amount committed by NFS in the original agreement has been met thus any additional analyses would require a Federal Cost Share Agreement (FCSA) under COE regulations or would be borne solely by the NFS.

Summary

- In May 2015 the Agency entered into a Federal Cost Share Agreement (FCSA) with the U.S. Army Corps of Engineers (Corps) and Santa Cruz County Flood Control and Water Conservation District (co-Local Sponsor), to complete the GRR at a 50-50 cost ratio. Total project cost is $2.0 million.
- Agency's overall financial commitment is $500,000 over two Fiscal Years which is fully reimbursable by Proposition 1E grant.
- Recently $700,000 was approved in the Corps 2015 work plan.

Summary

- Agency is seeking approval of the initial payment of $250,000 for this Fiscal Year and will submit a reimbursement claim shortly thereafter..
- A Tentatively Selected Project is being evaluated along with a Locally Preferred Project that is community based and supported.
- Regulatory agencies have been engaged throughout this feasibility development phase.
- GRR will be available for public comment this fall.

TODAY'S ACTION

Approve and Recommend that the Monterey County Water Resources Agency Board of Supervisors Approve $250,000 an Initial Payment Identified in the Federal Cost Share Agreement (FCSA) Executed by this Agency, U.S. Army Corps of Engineers (Corps) and Santa Cruz County Flood Control and Water Conservation District to Complete the General Reevaluation Report/Environmental Impact Statement (GRR) for the Pajaro River Flood Risk Reduction Project; and Request Said Funds be Transferred Directly to the U.S. Army Corps of Engineers (Corps)


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Receiving an Update on Castroville Seawater Intrusion Project (CSIP) Supplemental Well Status

Committee Action

- N/A

Prior BOD / BOS Action

- N/A

Financial Impact

- Currently ± $ 41,000 to Fund 131

Summary

Currently 11 of the CSIP system's 15 supplemental wells are online. Total daily pumping capacity is 21,935 gpm or 96 acre feet. Total daily CSIP system capacity is ±155 acre feet. Well 15C2 went offline on June 30, 2015 and repairs are underway. Installation of a pipeline to clean up pump New Well #2 was delayed; but, has been resumed. Pumping of New Well #2 is expected to begin in early August.

Discussion

New Well #2

- located on the Molera 1 Ranch
- offline for approximately 2 years.
- Two patches have been installed
- Chloride levels in the well were 1050 mg/L (08/27/2014)
- Conductivity is 3760 ohm/cm (08/29/2014).

Discussion

- New well #2 has 3,000 l.f. 4,000 l.f. of pipe installed needed to pump the well
- Initial installation began in June 2014 but was halted at grower request
- Installation was restarted after a redesign of access crossings
- Clean up pumping is expected to begin in early August.

Discussion

CSIP supplemental well 15C2

- located on the Orcutt Ranch
- went offline June 30, 2015 after investigation of a low flow alarm at the site revealed no water was being pumped on.
- Salinas Pump Co pulled the pump and column at well 15C2 and determined that the pump shaft had sheared and the pump bowls were worn out.
- Agency staff is in the process of receiving an estimate for, and ordering a new pump.
- Well is expected to be offline for a minimum of one month.

Discussion

- Currently 11 of the CSIP system's 15 supplemental wells are online.
- Total daily supplemental pumping capacity is 21,935 gpm or 96 acre feet.
- Total daily CSIP system capacity is ±155 acre feet.

TODAY'S ACTION

Receive an Update on Castroville Seawater Intrusion Project (CSIP) Supplemental Well Status


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Approving Amendment No. 1 to the Professional Services Agreement with Rain for Rent in the Amount of $10,000 to Allow Pumping of Castroville Seawater Intrusion Project Well 09D04 (New Well No. 2) to Improve Water Quality; to Extend the Terms of the Agreement through June 30, 2016; and, Authorizing the General Manager to Execute the Amendment

Committee Action

- None

Prior BOD / BOS Action

- January 26, 2015 the Board of Directors authorized a service agreement between Monterey County Water Resources Agency (MCWRA) and Rain for Rent

Financial Impact

- Fund 131-$10,000

Discussion

- The amended contract termination date is needed due to delays causing the project to carry over into FY 15/16.
- An option for an additional month of pipe rental is included in this contract at a cost of $6,272 is still in the contract.
- This would bring the total amended contract for installation and pipe rental with Rain for Rent to a new, not to exceed cost of $41,000.

Discussion (cont.)

Original Agreement	$	31,000
Amendment No. 1	$	10,000
Total:	$	41,000

Summary

MCWRA would like amend a Professional Services Agreement with Rain for Rent in the amount of $10,000, for a new not to exceed amount of $41,000, and to extend the term of the contract from June 30 2015 to June 30, 2016, for rental and installation of 4,000 linear feet of pipe.

Timing differences and delayed installation, due to grower operations and concerns have increased material and labor costs, and require an amendment to the original service agreement.

TODAY'S ACTION

Approve Amendment No. 1 to the Professional Services Agreement with Rain for Rent in the Amount of $10,000 to Allow Pumping of Castroville Seawater Intrusion Project Well 09D04 (New Well No. 2) to Improve Water Quality; to Extend the Terms of the Agreement through June 30, 2016; and, Authorize the General Manager to Execute the Amendment


MONTEREY COUNTY WATER RESOURCES AGENCY
1947

TODAY'S ACTION

Consider Receiving a Report Regarding the Possible Formation of an *Ad Hoc* Committee to Advise the Appropriate Water Resources Agency Standing Committee(s) on the Issues Identified in the Salinas Valley Water Coalition Letter Dated June 29, 2015; and Provide Direction to Staff

Committee Action

- None

Financial Impact

- Unknown at this time – level of effort has yet to be determined

- Funding Source has not been identified

Discussion

- SVWC, in a June 29, 2015 letter to the Agency, requested the formation of an *ad hoc* committee to review and discuss five issues:
  - Modeling
    - Related to County's Basin Study
  - Salinas Valley Water Project
    - Information / misinformation
  - Reservoir Operations
  - Agency Assessments for various Zones
  - Channel Maintenance

Discussion (cont.)

- Currently, Agency has five Standing Committees:
  - Basin Management Planning
  - Finance
  - Personnel and Administration
  - Planning
  - Reservoir Operations

- These committees meet regularly in open, public meetings

Discussion (cont.)

- Considerations regarding the formation of an *ad hoc* Committee:
  - Duplication with existing Standing Committees
  - Would *ad hoc* Committee report to another Standing Committee, or the BOD directly?
  - Will the committee be chartered?
  - How will membership be determined:
    - Size of committee
    - Organizations represented – include labor and environmental
    - Involvement in litigation against Agency
  - Increased Staff workload consideration
  - Will the process have / need an outside facilitator?

Discussion (cont.)

- Proposed Way Forward
  - Bring item to Planning Committee in August for further input
  - Bring results of Planning Committee discussion(s) to Strategic Planning Session tentatively scheduled for November

TODAY'S ACTION

Receive a Report Regarding the Possible Formation of an *Ad Hoc* Committee to Advise the Appropriate Water Resources Agency Standing Committee(s) on the Issues Identified in the Salinas Valley Water Coalition Letter Dated June 29, 2015; and Provide Direction to Staff