

6-AVEK-2

Exhibits

Charles W. Binder

Opinions

- Proposed physical solution results in groundwater production being reduced to an amount equal to the native safe yield, resulting in the groundwater basin being in hydrologic balance.
- Native safe yield plus available supplemental supplies are sufficient to meet the total current water requirements.

Opinions

- Proposed physical solution provides a functional structure to administer the judgment and manage the groundwater basin. Key elements of the proposed physical solution include:
 - Management structure organized through a Watermaster and Watermaster Engineer.
 - Financial plan to fund the management structure and implement the physical solution.
 - Flexible management tools to implement the judgment and manage the groundwater basin.
 - Continuing Court jurisdiction for enforcement and modification of provisions of the judgment.

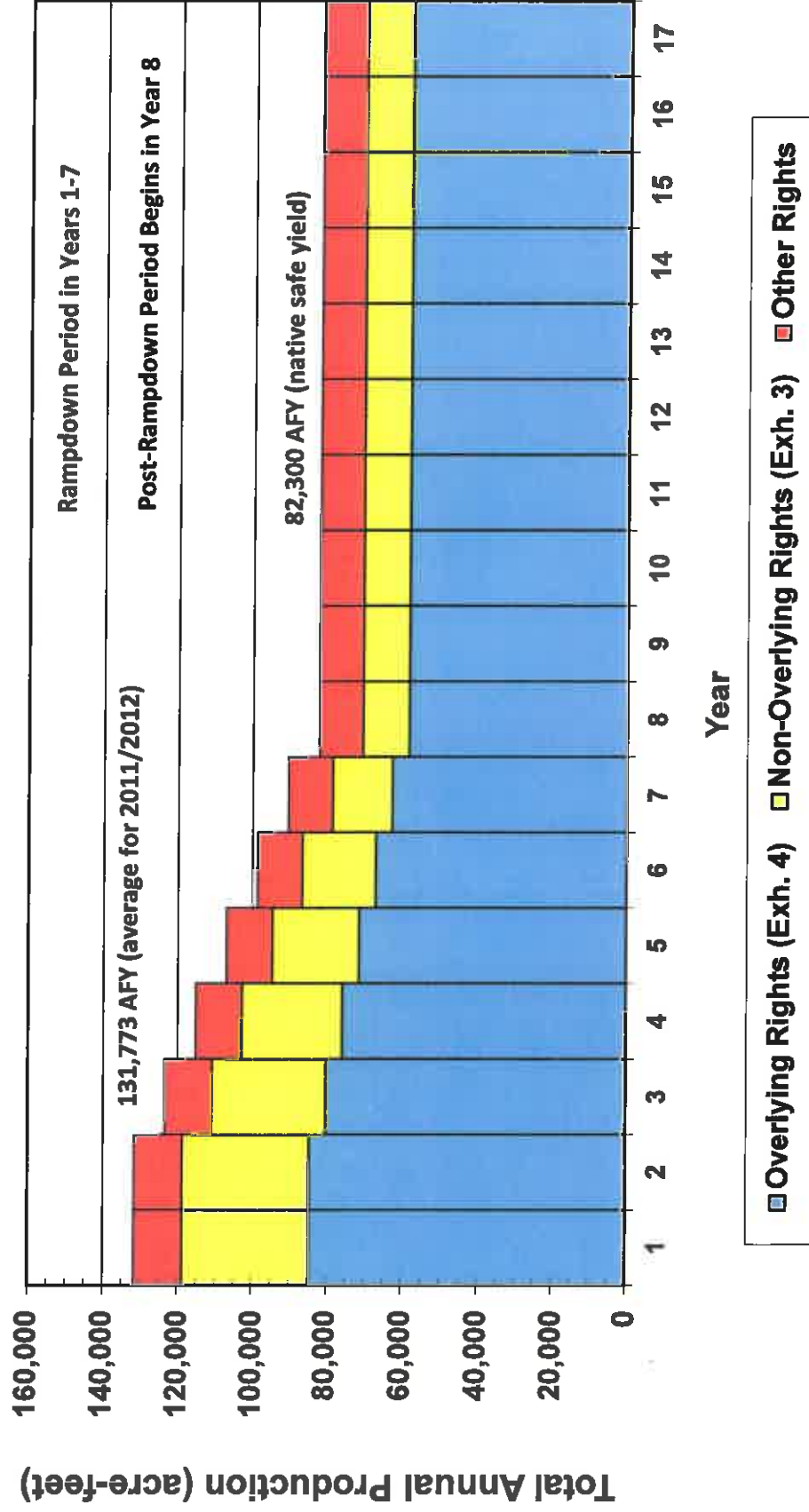
Objectives of the Proposed Physical Solution and Stipulated Judgment

- Achieve Safe Yield and Stabilize Groundwater Levels
- Develop Structure to Administer Judgment and Manage Groundwater Basin
- Develop Financial Plan for Administration of Judgment and Management of Basin
- Provide Flexible Management Tools for Functional Physical Solution
- Provide Continuing Court Jurisdiction for Enforcement and Modification of Physical Solution and Judgment

Balance Groundwater Production with Native Safe Yield

- Total Safe Yield Determined by Court
 - Native Safe Yield = 82,300 AFY
 - Supplemental Safe Yield = 27,700 AFY
 - Total Safe Yield = 110,000 AFY
- Groundwater Production Equals Native Safe Yield to Bring Groundwater Basin into Hydrologic Balance

Illustration of Annual Groundwater Production During Rampdown and Post-Rampdown Periods



Total Current Water Requirements
Average Uses for 2011 and 2012
(values in acre feet per year)

Groundwater Uses

Rural Residential (Small Pumpers) Groundwater Production	9,748	(1), (2)
Edwards AFB and Plant 42 (Federal Rights)	1,348	(3)
State of California	279	(1)
Public Water Suppliers	34,198	(1)
Overlying Landowners	84,650	(3), (4)
City of Lancaster	506	(3)
Phelan Pinon Hills CSD	1,044	(3)

Subtotal--Groundwater Uses	131,773	
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Supplemental Water Uses

Local Surface Water Supplies	4,000	(5)
Recycled Water	15,400	
Environmental Uses	3,500	(6)
Agricultural Uses	11,900	(7)
M&I Uses	0	(8)
State Water Project Supplies	67,000	
Agricultural Uses	18,400	(9)
M&I Uses	48,600	(9)

Subtotal--Supplemental Water Uses	86,400	
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TOTAL CURRENT WATER REQUIREMENTS	218,173	
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Notes:

- (1) Page 42, Exhibit 1 from September 23, 2015 deposition of Dennis E. Williams.
- (2) Based on GSI Water Solutions, Inc. Technical Report, July 2015.
- (3) Amended Statement of Partial Decision for Phase IV Trial, June 29, 2013.
- (4) Proposed Judgment, Exhibit 4, March 3, 2015.
- (5) Palmdale Water District 2010 Urban Water Management Plan, June 2011.
- (6) Page D-23; Phase 3 Expert Report.
- (7) Average for Period 2005-2009, Appendix G, Phase 3 Expert Report.
- (8) Assumed value.
- (9) DWR Bulletin Nos. 132-12 and 132-13; and AVEK Customer Water Use Reports.

Comparison of Total Current Water Requirements and Water Supplies

- Total Current Water Requirements = 218,173 AFY
- Water Supplies
 - Native Safe Yield
 - Supplemental Supplies
- Native Safe Yield plus Supplemental Supplies Sufficient to Meet Total Current Water Requirements

Supplemental Water Supplies

- Local Surface Water Supplies = 4,000 AFY
- Present Recycled Water Supplies = 23,800 AFY
- Table A Imported Supplies from SWP = 168,444 AFY
 - AVEK = 144,844 AFY
 - Littlerock Creek ID = 2,300 AFY
 - Palmdale WD = 21,300 AFY
- Total Present Supplemental Supplies = 196,244 AFY

**Illustration of Average Water Supplies Provided by Physical Solution
With SWP Supplies Limited to Embedded Amount in Supplemental Safe Yield
(values in acre feet per year)**

A. TOTAL SAFE YIELD

Natural Safe Yield

Overlying Production Rights (Exhibit 4)	58,342	(1), (2)
Non-Overlying Production Rights (Exhibit 3)	12,345	(1)
Federal Reserved Right (Paragraph 5.1.4)	7,600	(1)
State of California Production Rights (Paragraph 5.1.5)	207	(1)
Small Pumper Class Production Rights (Paragraph 5.1.3)	3,806	(1)
Subtotal--Natural Safe Yield	82,300	

Supplemental Safe Yield

Agricultural Return Flows from 9,400 AF SWP Deliveries	3,200	(3)
M&I Return Flows from 62,800 AF SWP Deliveries	24,500	(3)
Subtotal--Supplemental Safe Yield	27,700	

Subtotal--Total Safe Yield	110,000	(4)
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B. LOCAL SUPPLEMENTAL SURFACE WATER SUPPLIES	4,000	(5)
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C. RECYCLED WATER

Environmental Purposes		3,500	(6)
Paiute Ponds	3,300		
Apollo Lakes	200		
Delivery to Agricultural Users		11,900	(7)
Delivery to M&I Users		8,400	(8)
Subtotal--Recycled Water		23,800	

D. SUPPLEMENTAL DIRECT DELIVERIES FROM SWP

SWP Deliveries to Agricultural Users (Embedded in Supplemental Safe Yield)	9,400	(9)
SWP Deliveries to M&I Users (Embedded in Supplemental Safe Yield)	62,800	(10)
Subtotal--Supplemental Direct Deliveries from SWP	72,200	
(Percentage of Table A Amount of 168,444 AFY)	43%	(11)

TOTAL WATER SUPPLIES	210,000
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Notes:

- (1) Stipulation Exhibit 1--Proposed Judgment and Physical Solution (PJPS).
- (2) Amount for Overlying Production Rights adjusted upward to result in total of 82,300 AFY.
- (3) Split derived from Appendix F, Table F.4-1; Phase 3 Expert Report.
- (4) Court set total safe yield at 110,000 AFY per Statement of Decision Phase Three Trial.
- (5) Palmdale Water District 2010 Urban Water Management Plan, June 2011.
- (6) Page D-23; Phase 3 Expert Report.
- (7) Total 23,800 AFY minus 3,500 AFY equals 20,300 AFY; assume current use for Ag.
- (8) Total 23,800 AFY minus 3,500 AFY equals 20,300 AFY; assume remainder for M&I.
- (9) 3,200 AF/0.34; Agricultural Return Flow Percentage per Paragraph 5.2.1, PJPS.
- (10) 24,500/0.39; M&I Return Flow Percentage per Paragraph 5.2.1, PJPS.
- (11) Percentage equals 72,200 AFY divided by 168,444 AFY.

**Illustration of Average Water Supplies Provided by Physical Solution
With Additional SWP Supplies to Meet Current Water Requirements (Average for 2011 and 2012)
(values in acre feet per year)**

A. TOTAL SAFE YIELD

Natural Safe Yield

Overlying Production Rights (Exhibit 4)	58,342	(1), (2)
Non-Overlying Production Rights (Exhibit 3)	12,345	(1)
Federal Reserved Right (Paragraph 5.1.4)	7,600	(1)
State of California Production Rights (Paragraph 5.1.5)	207	(1)
Small Pumper Class Production Rights (Paragraph 5.1.3)	3,806	(1)
Subtotal--Natural Safe Yield	82,300	

Supplemental Safe Yield

Agricultural Return Flows from 9,400 AF SWP Deliveries	3,200	(3)
M&I Return Flows from 62,800 AF SWP Deliveries	24,500	(3)
Subtotal--Supplemental Safe Yield	27,700	

Subtotal--Total Safe Yield **110,000** (4)

B. LOCAL SUPPLEMENTAL SURFACE WATER SUPPLIES

4,000 (5)

C. RECYCLED WATER

Environmental Purposes

Paiute Ponds	3,300		3,500	(6)
Apollo Lakes	200			

Delivery to Agricultural Users 11,900 (7)

Delivery to M&I Users 8,400 (8)

Subtotal--Recycled Water **23,800**

D. SUPPLEMENTAL DIRECT DELIVERIES FROM SWP

SWP Direct Deliveries to Agricultural Users (Embedded in Supplemental Safe Yield) 9,400 (9)

SWP Direct Deliveries to M&I Users (Embedded in Supplemental Safe Yield) 62,800 (10)

Additional SWP Direct Deliveries to Satisfy Unmet 2011/2012 Water Requirements 6,099 (11)

Subtotal--Supplemental Direct Deliveries from SWP **78,299**

(Percentage of Table A Amount of 168,444 AFY) **46%** (12)

E. ADDITIONAL SUPPLEMENTAL SUPPLIES FROM PUMPING

2,074 (13)

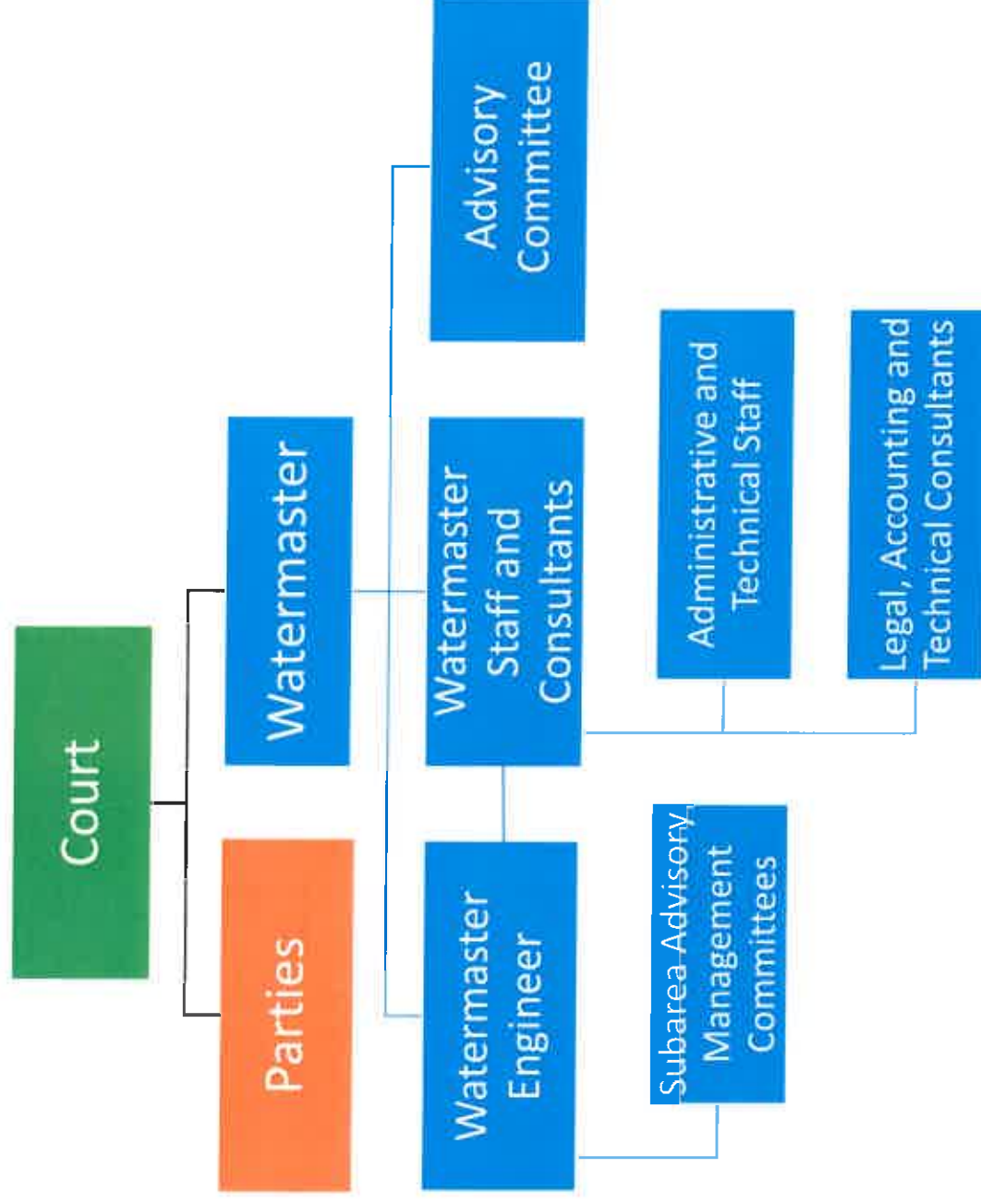
OF IMPORTED WATER RETURN FLOWS NOT PART OF SAFE YIELD

TOTAL WATER SUPPLIES **218,173**

Notes:

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- (3) Split derived from Appendix F, Table F.4-1; Phase 3 Expert Report.
- (4) Court set total safe yield at 110,000 AFY per Statement of Decision Phase Three Trial.
- (5) Palmdale Water District 2010 Urban Water Management Plan, June 2011.
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- (7) Total 23,800 AFY minus 3,500 AFY equals 20,300 AFY; assume current use for Ag.
- (8) Total 23,800 AFY minus 3,500 AFY equals 20,300 AFY; assume remainder for M&I.
- (9) 3,200 AF/0.34; Agricultural Return Flow Percentage per Paragraph 5.2.1, PJPS.
- (10) 24,500/0.39; M&I Return Flow Percentage per Paragraph 5.2.1, PJPS.
- (11) Unmet water requirements not distinguished between agricultural, M&I, and small pumper categories.
- (12) Percentage equals 78,299 AFY divided by 168,444 AFY.
- (13) Pumped from wells; assume return flow credit equals 34 percent.

Management Structure for Judgment and Physical Solution



Financial Plan

- Annual Watermaster Budget and Assessments Approved by Court
- Assessments Administered by Watermaster
 - Administrative Assessments
 - Replacement Water Assessments
 - Balance Assessments
- Watermaster Has Ability to Borrow Money

Direct Measures to Balance Water Supplies and Water Requirements

- Seven-Year Rampdown for Groundwater Production to Reach Native Safe Yield
- Rights to Imported Water Return Flows
- Provide Supplemental Imported Supplies from State Water Project
- Provide Recycled Water as Source of Supplemental Supplies

Management Tools for Coordinated and Conjunctive Use of Native and Supplemental Water Supplies

- Rights to Imported Water Return Flows
- Carryover Water
 - In Lieu Production
 - Imported Water Return Flows
 - Production Rights
- Groundwater Storage (Banking)
- Transfers
- Change in Point of Extraction

Monitoring Program for Management of Groundwater Basin

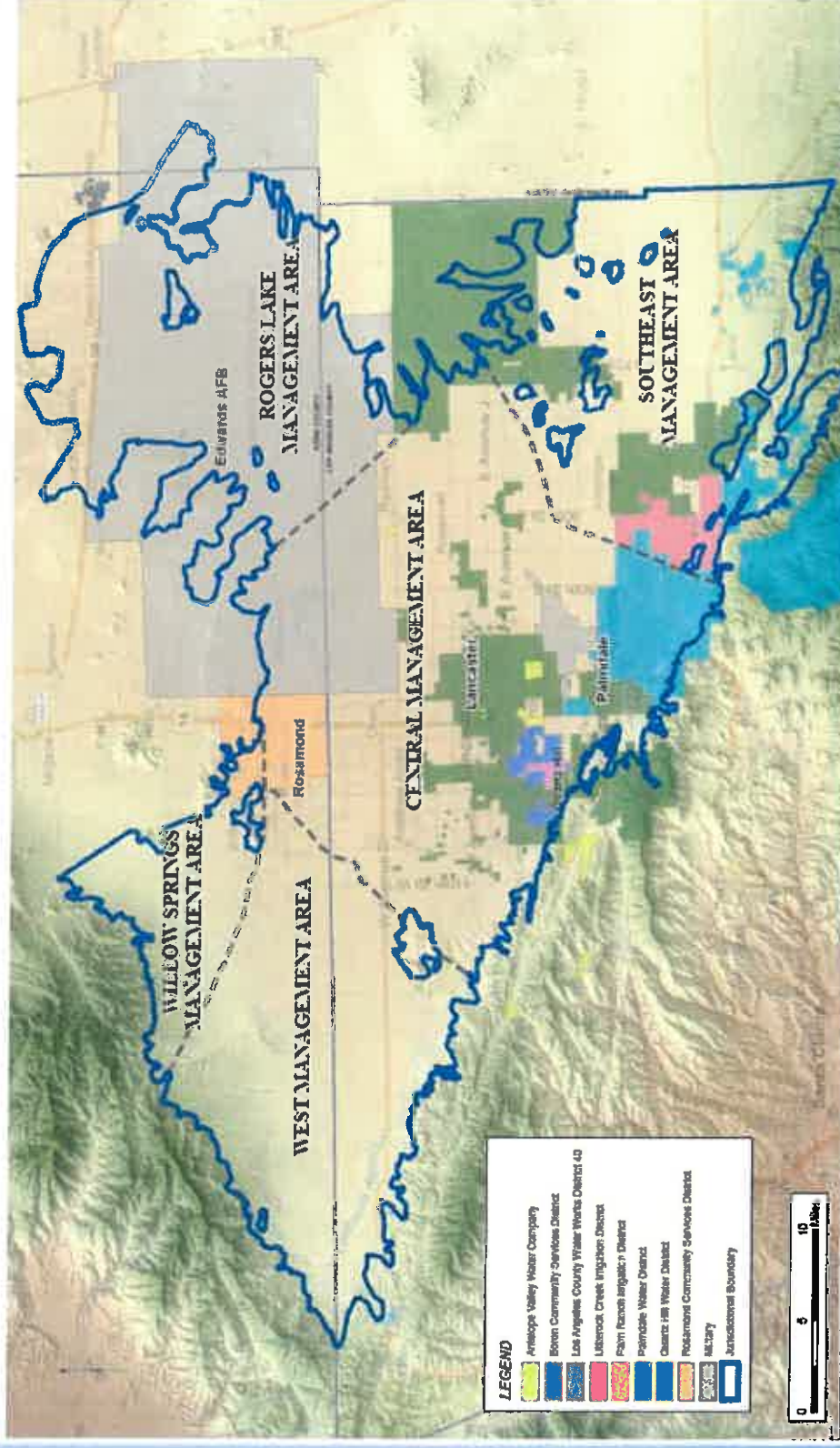
- Annual Watermaster Report Submitted to Court
- Monitoring Program
 - Water Use
 - Groundwater Levels
 - Subsidence
 - Precipitation
 - Water Quality
- Flow Meters for all Producers Except Small Pumper Class
- Production Reports Submitted by all Producers Except Small Pumper Class
- Monitoring Use by Small Pumper Class through Physical Inspection and Estimates Using Power Records

Five Management Subareas

- Five Management Subareas
 - Central Antelope Valley Subarea
 - West Antelope Valley Subarea
 - South East Subarea
 - Willow Springs Subarea
 - Rogers Lake Subarea
- Subarea Advisory Management Committees to Advise Watermaster Engineer
- Map Provided as Exhibit 10 to Proposed Judgment

Five Management Subareas

SUBAREAS



1-05-CV-049053

Judgment and Physical Solution

EXHIBIT 10



Overview of Watermaster

- Administer Judgment and Physical Solution
- Five Member Board Comprised of Various Water Users
- Duties Performed in Impartial Manner
- Adopt Watermaster Rules and Regulations for Conduct under Judgment
- Select Watermaster Engineer
- Consult with Advisory Committee

Key Duties of Watermaster

- Maintain Current List of Parties
- Administer Annual Budget, Investments, and Assessments
- Maintain Record of Carryover and Transfers
- Consider and Approve Applications for New Production
- Bring Actions or Motions to Enjoin Conduct Prohibited under Judgment

Duties and Responsibilities of Watermaster Engineer

- Prepare Watermaster Rules and Regulations
- Implement Monitoring, Flow Meter, and Production Reporting Programs
- Prepare Annual Report for Filing with the Court
- Review Native Safe Yield for Recommendations to Court
- Review Imported Water Return Flow Percentages for Recommendations to Court
- Administer Replacement Water and Assessment Program
- Administer Balance Assessment Program

Duties and Responsibilities of Watermaster Engineer (continued)

- Administer Application Procedure for Watermaster to Approve New Groundwater Production
- Review Proposed Transfers of Production Rights for Approval by Watermaster
- Administer Storage Agreements between Watermaster and Parties
- Administer Carryover Programs
- Conduct Analyses for Material Injury Determinations

Actions Subject to Material Injury Determination by Watermaster Engineer

- Exercise of Production Rights
- Storage Agreements
- Carryover
- Transfers
- Change in Point of Extraction
- New Production Applications

Continuing Jurisdiction of Court

- All Watermaster and Watermaster Engineer Actions Subject to Review by Court
- Court Review and Modification upon Petition by Party or Watermaster
- Ongoing Approval of Watermaster Assessments and Budget
- Ongoing Approval of Annual Watermaster Report
- Enjoin any Conduct Prohibited by Judgment