

SAN GORGONIO PASS WATER AGENCY
1210 Beaumont Avenue, Beaumont, CA
Board of Directors Engineering Workshop
Agenda
September 9, 2019 at 1:30 p.m.

1. **Call to Order, Flag Salute and Roll Call**
2. **Public Comment:** Members of the public may address the Board at this time concerning items relating to any matter within the Agency's jurisdiction. To comment on specific agenda items, please complete a speaker's request form and hand it to the board secretary. Speakers are requested to keep their comments to no more than five minutes. Under the Brown Act, no action or discussion shall take place on any item not appearing on the agenda, except that the Board or staff may briefly respond to statements made or questions posed for the purpose of directing statements or questions to staff for follow up.
3. **Review of Costs for Fiesta Recharge Projects* (p. 2)**
4. **Review of Costs for Noble Connection Enlargement* (p. 3)**
5. **Sites Reservoir Update* (p. 4)**
6. **Discussion of Potential Banning/Cabazon Pipeline**
7. **Announcement:**
 - A. Regular Board Meeting, September 16, 2019 at 1:30 p.m.
 - B. Finance and Budget Workshop, September 23, 2019 at 1:30 p.m.
 - C. Joint Board Meeting, September 25, 2019 at 1:30 p.m.
- Location: 380 E. Vanderbilt Way, San Bernardino
 - D. San Gorgonio Pass Regional Water Alliance, September 25, 2019,
at 5:00 pm - Banning City Hall
8. **Adjournment**

***Information included in Agenda Packet**

(1) Materials related to an item on this Agenda submitted to the Board of Directors after distribution of the agenda packet are available for Public inspection in the Agency's office at 1210 Beaumont Avenue, Beaumont during normal business hours. (2) Pursuant to Government Code section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Agency's office, located at 1210 Beaumont Avenue, Beaumont, California 92223, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Web site, accessible at <http://www.sgpwa.com>. (3) Any person with a disability who requires accommodation in order to participate in this meeting should telephone the Agency (951 845-2577) at least 48 hours prior to the meeting in order to make a request for a disability-related modification or accommodation.

San Gorgonio Pass Water Agency
 Fiesta Recharge Facility aka Beaumont Avenue Recharge Facility
 Expenditure Review
 As of 8/13/19

Expenditure Category	Amount
Preparation and Design	
CEQA and Permitting:	144,805.13
Design and Engineering	468,799.02
Other Expenses:	<u>42,350.75</u>
Total:	655,954.90
DWR Review	80,000.00
Pipeline Construction	
Construction:	1,633,302.16
Post-design:	<u>131,262.07</u>
Total:	1,764,564.23
Recharge Basin Construction to Date	
Construction:	3,617,418.00
Post-design:	<u>538,171.74</u>
Total:	4,155,589.74
Mt. View Connection Design	145,287.17
Total Project Expenditures to Date (Does not include land):	6,801,396.04
Pro-Craft Contract:	3,771,000.00
Change order:	-175,000.00
Change order:	98,000.00
Pro-Craft Contract Net:	3,694,000.00
Expenditures to date:	<u>3,617,418.00</u>
Remaining:	76,582.00
Expected Future Costs	
Pro-Craft Change Order (Max):	357,236.00
Estimated Post-Design - Fiesta and Mt. View:	60,000.00

San Geronio Pass Water Agency
 Noble Connection Expansion
 Expenditure and Revenue Summary
 As of 8/13/19

SGPWA Expenditures:

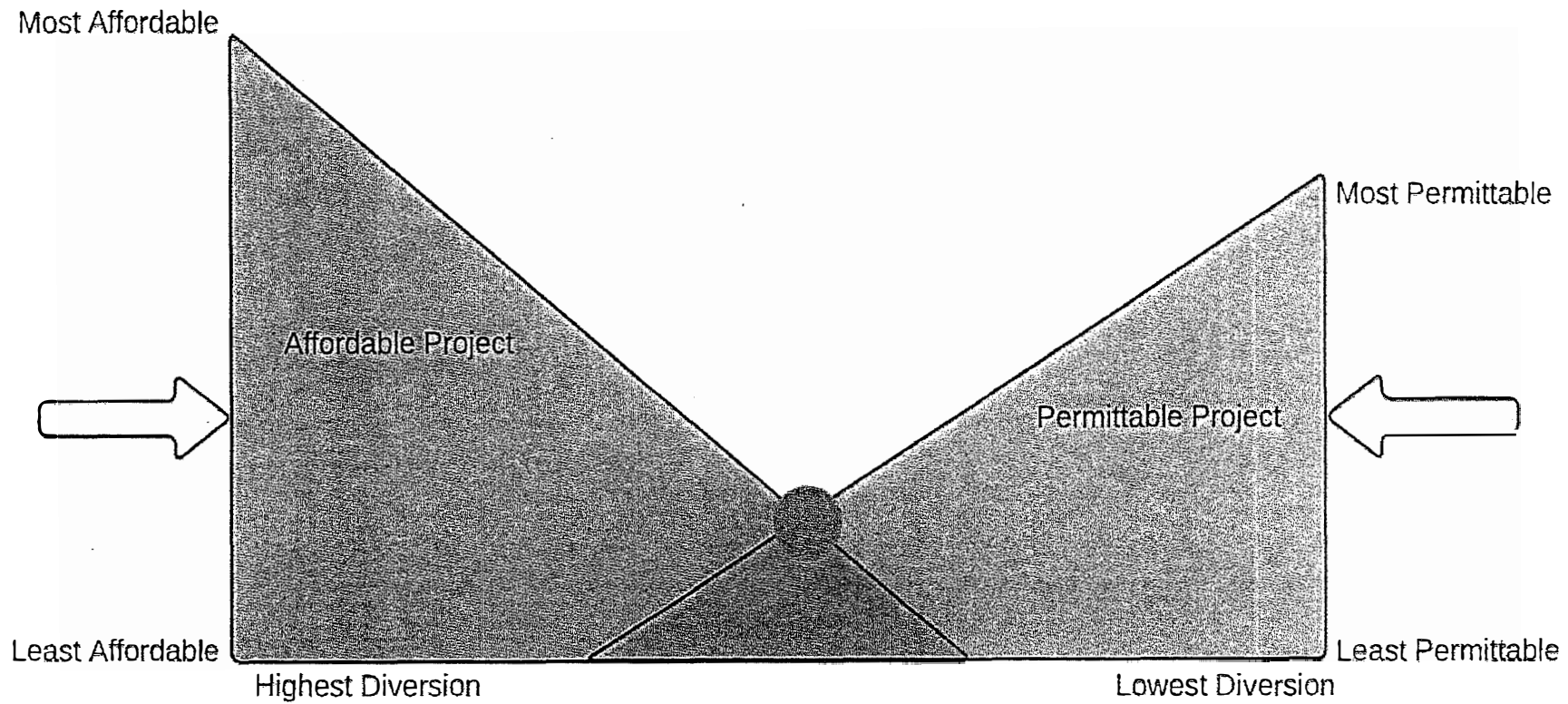
Planning/CEQA/Permits:	7,017.43
Design and Engineering:	33,376.30
DWR Review:	60,000.00
Planning and Bidding:	1,201.85
Construction:	403,750.00
Post-Design:	27,033.28
Total Expenditures:	532,378.86

Revenue from BCVWD:	569,812.45
Revenue less Expense:	37,433.59

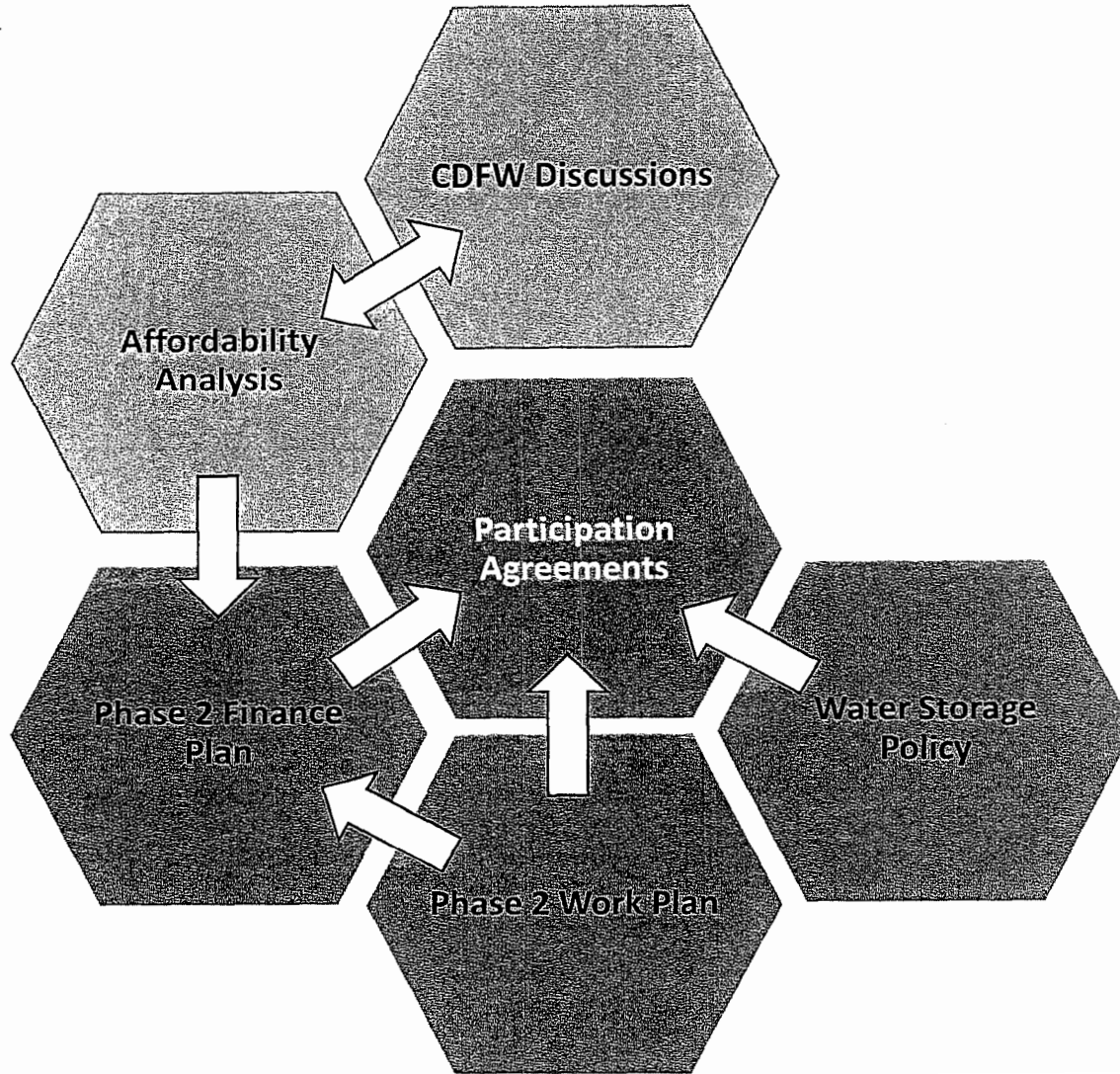
Construction Contract with Pro-Craft:	425,000.00
Paid to date:	403,750.00
Remaining:	21,250.00

Affordable and Permittable

4 / 2 1



Work Plan Integration



5 / 21

Affordability Analysis - Purpose

Estimate annual repayment and operational costs to participants associated with changes:

- Facility sizes and costs
- Future operations – including climate change,
- Participation
- Future market conditions
- Financial market & access to WIFIA &/or RIFIA
- Construction market (competition), Supplier, and bulk material costs

Updated Financial Modeling Assumptions

- Interest rate - Same as forecasted loan
- Bond rates for 2022-2030 have not changed significantly from late 2018 forecasts
- Federal WIIN Act funds: 12.5 and 25% of total cost (max \$1.6 billion)
- Construction costs Updated to 2018 basis then escalated
- Risk Mitigation cost escalator reduced from 4.2% to 3.9%

7 / 21

Affordability: Assumptions

Flexibility built in for scenario analysis:

- Cost based on reservoir size and options
- Interest rate
- WIFIA / RIFIA funding amount
- \$/AF value based on water releases

Facility Scenarios

- Diversion/Pumping: 5,900 to 3,900 cfs max
- Reservoir Storage: 1.8, 1.5, 1.3, 1.0 and 0.8 MAF
- Delevan facility: Inlet/Outlet or Outlet only
- Pipelines: 2 vs 1
- Diversion Limits: Bypass at Wilkins Slough, Fremont Weir Notch
- Pump-storage facilities: Installed or deferred

9 / 21

Purpose

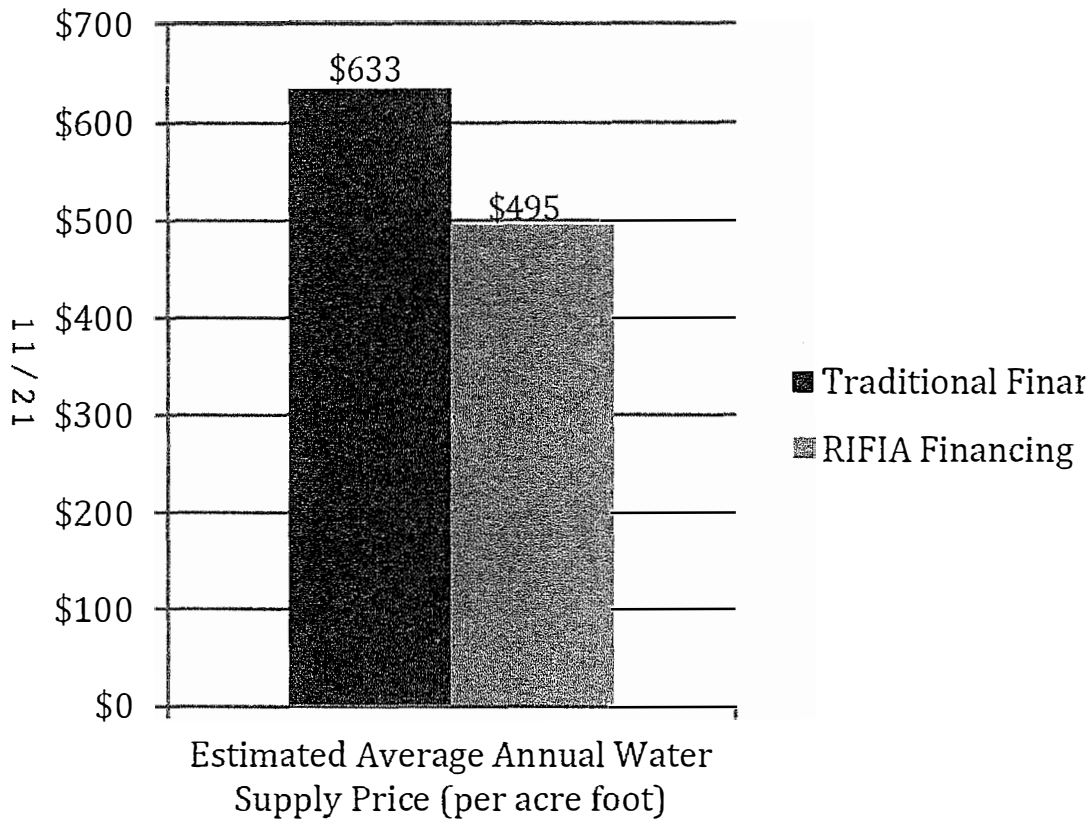
Estimate annual repayment and operational costs to participants associated with changes in:

- Facility sizes and costs
- Future operations – including climate change,
- Participation
 - a. Sacramento Valley
 - b. Beyond Sacramento Valley (Exports)
 - c. State of CA (Prop 1, WSIP)
 - d. Federal government (Dept. of Interior, WIIN Act)
- Future market conditions
 - a. Financial market & access to WIFIA &/or RIFIA
 - b. Construction market (competition), Supplier, and bulk material costs

10/21

2015 Analysis

Average Annual Water Supply Price



Assumptions:

- Project Cost = \$4.2 Bn (2015 dollars)
- WSIP funding = \$1.25 Bn
- Participation = 300,000 AF/Yr
- Bond funds available in year 2020
- Rate for Traditional: 4.31%
- Repayment starts in year 2026
7 for 30-years
- No annual OM&R costs

End of Phase 1 (Dec 2018) Analysis

Common Assumptions

- Pay Interest only until completion, then principal and interest
- USDA loan at 3.875%
- Semi-annual interest payments in Jun/Dec, principal payment in Dec
- Level Debt Service

	Assumed Future Bond Rates (5.0%)	Bonds if Issued at Current Rates (4.2%)	Bonds at Current Rates (4.2%) plus WIFIA Loan (3.3%)
	(\$ millions)	(\$ millions)	(\$ millions)
Project Costs	6,464,317,786	6,464,317,786	6,464,317,786
Prop 1 Funds	816,000,000	816,000,000	816,000,000
WIIN Act Funds	1,300,000,000	1,300,000,000	1,300,000,000
USDA Loan Proceeds	438,728,982	438,728,982	438,728,982
WIFIA Loan Proceeds	-	-	1,100,000,000
Project Fund	4,275,728,982	4,277,728,982	4,239,276,206
CAPI Fund	-	-	-
Debt Service Reserve Fund	139,869,790	128,146,735	119,048,643
Underwriters Discount	19,964,170	19,915,310	14,010,511
Cost of Issuance	6,500,000	6,500,000	5,500,000
Principal	4,442,062,942	4,432,291,028	4,377,835,361
Interest Paid	5,510,997,191	4,621,029,534	4,239,483,697
Debt Service	9,953,060,132	9,053,320,562	8,617,319,058

12/21

End of Phase 1 (Dec 2018) Analysis

PRELIMINARY RESULTS: CURRENT COST ESTIMATE of \$6,464 million (future \$)

	Assumed Future Bond Rates (5.0%)		Bonds Issued at Current Rates (4.2%)		Bonds at Current Rates (4.2%) plus \$1.1 Bn WIFIA loan (3.3%)		
	\$	\$/AF 250,000 AF	\$	\$/AF 250,000 AF	\$	\$/AF 250,000 AF	
Annual Net Debt Service (Note 1)							
in 2018 Dollars	183,978,345	736	168,787,718	675	156,998,493	628	Fixed payment
in 2032 Dollars	278,283,755	1,113	255,306,568	1,021	237,474,308	950	
Annual O&M (Note 2)							
in 2018 Dollars	21,621,836	86	21,621,836	86	21,621,836	86	Escalates over time
in 2032 Dollars	28,529,554	114	28,529,554	114	28,529,554	114	
Annual Revenue							
in 2018 Dollars	(10,168,428)	(41)	(10,168,428)	(41)	(10,168,428)	(41)	Variable over time. Reduces payments
in 2032 Dollars	(13,367,172)	(53)	(13,367,172)	(53)	(13,367,172)	(53)	
Total Net Cost							
in 2018 Dollars	195,431,753	782	180,241,126	721	168,451,902	674	
in 2032 Dollars	293,446,136	1,174	270,468,949	1,082	252,636,690	1,011	

Note 1: Net debt service is debt service less interest earned on debt service reserve fund investments

Note 2: Annual O&M is for delivery at Holthouse. Delivery to Sacramento River adds \$17/AF in 2018\$ (\$22/AF in 2032\$)

Range of Facility Sizes & Costs

- Range of facility sizes
 - a. Reservoir: 1.8 MAF - 0.8 MAF
 - b. Delevan facility: Inlet/Outlet or Outlet only
 - c. Pipelines: 2 vs 1
 - d. Construction schedule's effect on Interest During Construction (IDC)
- Range of construction costs
 - a. Cost estimate: Appraisal level (dollars in 2018)
 - b. Construction schedule's effect on Interest During Construction (IDC)
 - c. Mitigation for construction effects is scaled by footprint size
 - d. Mitigation for operations does not decrease proportionately with smaller project (i.e. not linear)
- Range of operating costs (OM&R)
 - a. Includes seasonal hydropower (releases)
 - b. Excludes pumped-storage hydropower

14/21

Range of Participation, State of California

- Current Prop 1, WSIP
 - a. Current MCED = \$816 million
 - b. Dollars in 2015 (Amount does not escalate)
 - c. Capital Only. Can't be converted to cover OM&R costs
 - d. Deduct recreation benefits (50% cost-share with federal)
 - e. Deduct flood risk reduction benefits (35% cost-share, 65% federal)
 - f. Convert remaining dollars into a storage account (Cost of Production)
 - g. Reserve a fraction to sell water to cover OM&R costs

- Release water to comply with Water Commission's current priorities
 - a. Augment water for wildlife refuges (Incremental Level 4)
 - b. Release water to flow into Cache Slough for Delta smelt
 - c. Water flowing through Cache Slough is eventually counted towards Delta outflow
 - d. Current working assumption is annual deliveries

15/21

Range of Participation, Federal (interior)

- Storage Investment through WIIN Act < 25%
 - a. Dollars escalate, but can't be converted to cover OM&R costs
 - b. Deduct recreation & flood risk reduction (cost-share with State)
 - c. Convert remaining dollars to storage account (Cost of Production)
 - d. Water to augment wildlife refuges (Incremental Level 4)
OM&R: Requires annual appropriations or use existing source (e.g. CVPIA)
 - e. Water to provide "Operational Flexibility"
For flow stabilization & coldwater pool: OM&R is not reimbursable to CVP Contractors. Requires annual appropriations or other funding mechanism
For Export: OM&R is reimbursable to CVP Contractors receiving water benefits

Or, reserve a fraction to sell water to cover OM&R costs
- Cooperative Operations (No storage investment)
 - a. Annual exchange of "Local" water with Shasta (and potentially Folsom) and no carryover
 - b. "Local" water takes risk of spill
 - c. Limitations on fall release flows and maximum exchange volume

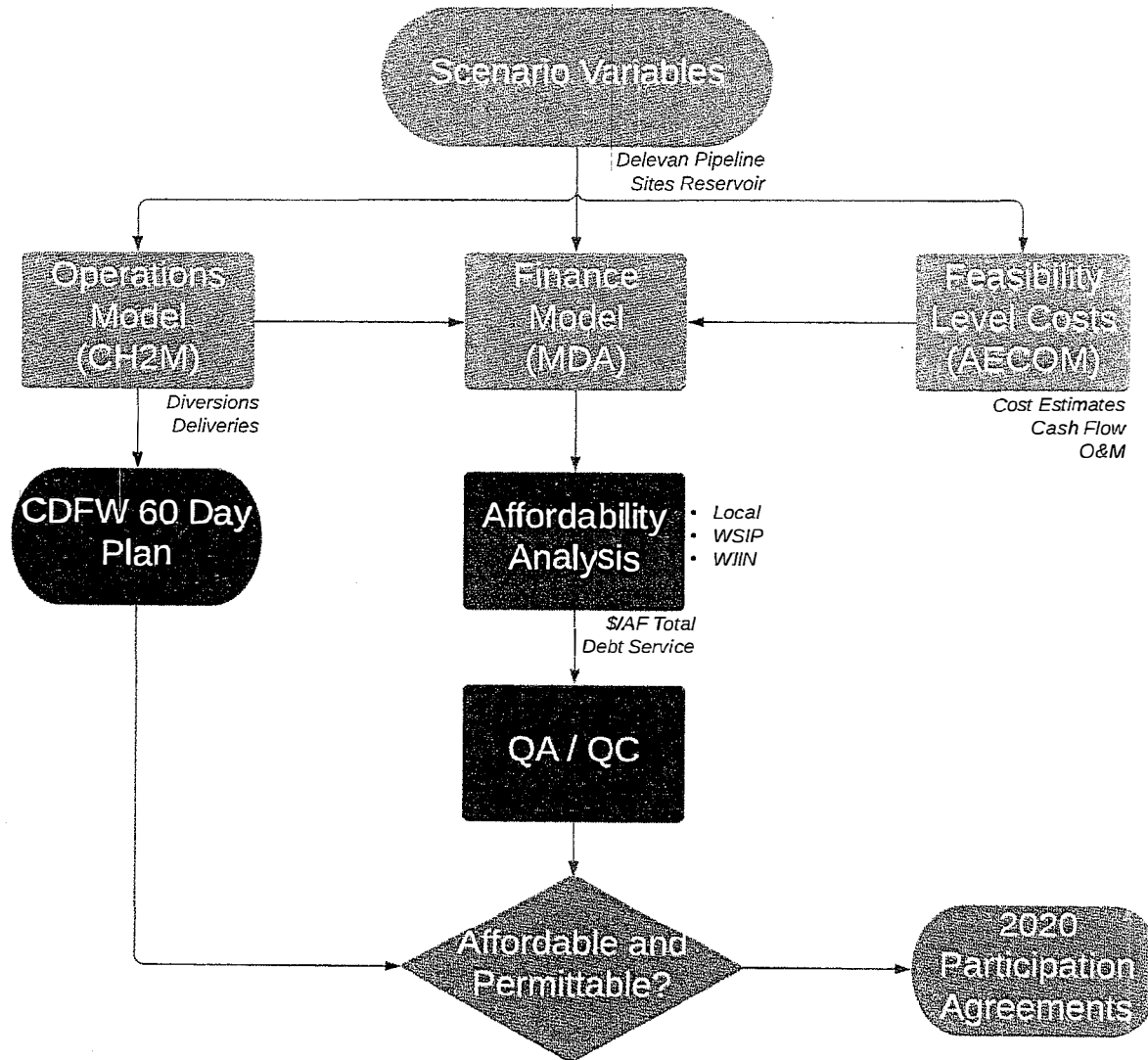
16 / 21

Range of Participation, Local / Public WA

- Common
 - a. Convert deliveries into storage volumes using pro-rata share of the Cost of Production
 - b. Apply current participation first
 - c. When needed, estimate additional participation needed to be fully subscribed
 - d. Apply conditional USDA Loan
 - e. Evaluate combination of WIFIA &/or RIFIA up to 49% of total non-federal costs
- Releases for use in Sacramento Valley (CVP)
 - a. Ag Service Contractors
 - b. Settlement contractors
- Releases for use beyond Sacramento Valley (SWP)
 - a. Southern CA
 - b. Bay Area
 - c. North Bay
 - d. San Joaquin Valley

17/21

Process



18/21

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Results: General Take Aways

1. Finance: WIFIA loan reduces cost on average by ~\$60 / AF
2. Changing Operations: Hypothetical future conditions increases repayment cost per by ~\$130 / AF
3. Value Engineering: Reducing project cost has biggest impact on reducing repayment (up to \$110 / AF)
4. Delevan Pipeline: Is key to maximize deliveries south of Delta
5. Participation: For a given project size, reduced State or Federal funding creates an opportunity for additional participation, but the shift in capital cost to participants increases IDC and repayment on \$/acre-ft.
6. Storage Policy: Value is not included. This establishes a flexible asset that facilitates water transfers

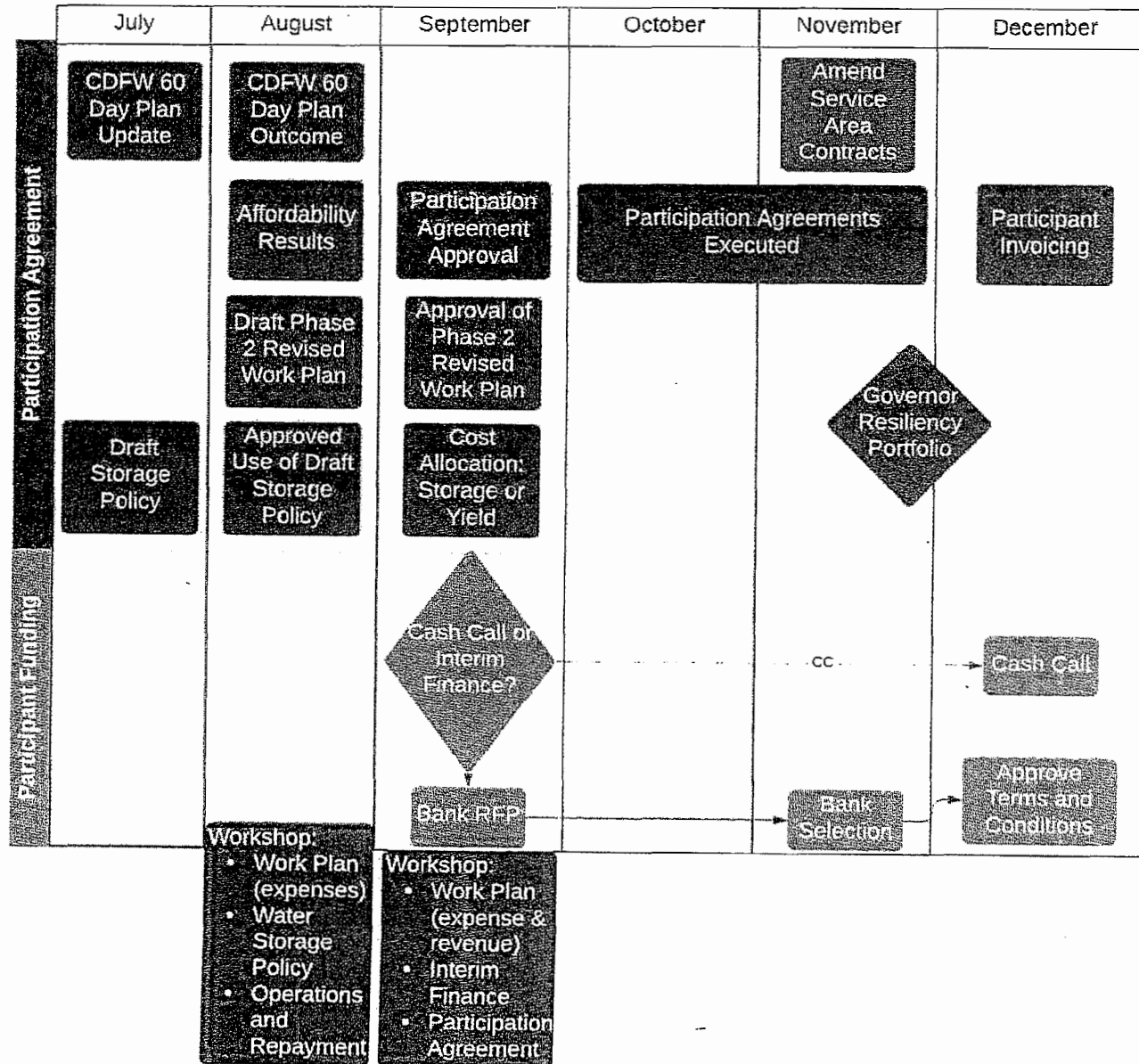
19/21

Next Steps

1. Evaluate additional permit-limited conditions
2. Include climate change (diversions improve)
3. Evaluate alternative federal (Interior) participation
3. Incorporate cost reduction strategies (optimization)
4. Further evaluate effects of future market changes
5. Address other actions
(CWC funding, future water bond, interest during construction)

20/21

2020-2021 Participation Agreement Schedule



21 / 21