Recycled Water Seasonal Storage Facility Plan of Action

Comprehensive Water Resource Strategy

JPA

Individual	Orientation	Interviews
Small Group	Workshop #1 Context	PESTLE
“The Team”	Workshop #2 Convergence	BPAT
MWH	Analysis	
“The Team”	Workshop #3 Affirmation	Elements of the Roadmap
	Implementation “Road Map”	

GO TIME

MWH

Workshop 2 - Agenda

Time	Item
4:00 – 4:15	Welcome and Recap, presented by Dr. Steve Weber
4:15 – 4:45	Introduction and Water Quality, presented by Dave Pedersen
4:45 – 5:00	Technical Presentation: Seasonal Storage, presented by James Borchardt
5:00 - 5:30	BPAT Part 1
5:30 - 5:45	Break, Dinner is served
5:45-6:15	Concept Reuse and Storage Scenarios
6:15 - 6:30	Break
6:30 - 7:30	BPAT Part 2
7:30 - 8:00	Closing and Next Steps, presented by Dave Pedersen

Guiding Principles

- Maximize Beneficial Reuse
- Seek Cost Effective Solutions
- Seek Partnerships beyond the JPA
- Gain Community Support
- Govern with a Partnership
- Be Forward Thinking

Political

- Get out of Malibu Creek
- Re-use 100% of our water
- Leadership
- Board unity/consistent leadership
- Disconnect among rate payers, regulators, & utilities
- Public stakeholder buy-in
- Public support for project
- Stakeholder speak as one
- Support from environmental groups
- Project gets built and not bogged down by regulations
- Regulators support for project
- Changing Public Perception of DPR
- Partnership
- Regional Partnerships
- Public acceptance
- Create a project with large support
- Partnerships?
- Integrate resource concerns
- History of disagreement
- Election timing
- Active public
- Growth/No growth
- External relationships and partnerships
- Land use planning/zoning
- Increase level of reuse
- Reuse, not waste

Economic

- Maximizing resources
- Avoid stranded costs
- How to price recycled water
- Funding
- Maximize the use of an imported and costly resource
- How to pay
- Cost/benefit
- Develop a plan for using reclaimed water that has benefits proportional to its costs
- Qualify for proposition 1 Section 8 money
- Impact on rate payers
- High water rates
- Cost of project
- Equitable cost/revenue sharing between LVMWD:TSD
- Funding and permitting an alternative to the creek
- Government financial support
- Affordable project for rate payers
- Recycled water storage cost
- Timing
- Banking future costs, pricing strategies
- Alternative financing P3
- Do we harden demand by adding purple pipe?
- Viable NPR customers
- Cost
- Financially feasible
- Efficient use of money
- Cost effective
- Bad science drives up costs
- Cost effective
- Project cost $$$$
- Funding
- Affordable water rates
- Pumping cost
- Efficient use of public money
- Beneficial to rate payers
- TMDL compliance/penalties
- Ability to finance
- Land acquisitions and scale
- Land exchanges
- Local job growth
- Trickle down impact of drought
- Aging infrastructure
- USACE funding without earmarks
- Title XVI
- Water bond
- Drought grants/IRWM page.84
- SRF $

Social

- Sustainable
- Sustainable water supply
- Future water supply
- Perpetuating bad habits
- End user reuse gray
- Water literate public
- Public support
- Yuck factor
- Public perception and acceptance
- Include recreation
- Create a water recreation area
- Public recreation reservoir
- Health & safety (env)
- Visual impact of infrastructure
- Timing
- Reduced portable imports
- Public awareness of costs/benefits
- Get community investments buy in
- Public Health
- Project protest public health
- Make DPR possible
- Eliminate unreasonable use and waste of water
- Maximum benefit of waste water
- Building resiliency in time of drought
- Incentives – change behaviors
- Community public support
- Consensus
- Improve conservation awareness of the general public
- Public support
- Public acceptance
- Outreach
- Public perception
- Partnerships
- Transparency
- Community disruptions
- OAC's/Env.justice
- Employment
- Property values
- Rural culture
- Need for education
- Lack of PR plans
- Engage community in process

Technical

- Managing high flows to the plant
- Brine disposal
- Decentralize treatment infrastructure
- Store on existing hardscapes
- Large tanks on LVMWD spreading growth feasible for some storage
- How to best divide NPR/IPR/DPR recycled water use
- Safety (water safe for designated use
- Hybridize soft and hard watersheds
- Pipeline length (getting the water there)
- Hardened recycled demand committed recycle uses
- Innovation
- Available customers for additional RW
- Affordable O &M costs
- Landscape irrigation
- Improved pervious surfaces and storage
- Obsolescence of Technology
- Local conditions verses one solution fits all
- Technology verses practical solutions
- Beneficial reuse
- Reliability (water Supply)
- Local water reliance
- Reliable water
- Resiliency during drought
- Save drinking water
- Piping mistakes---Cross contamination…
- Safe water
- Clean water
- Storm water recharge and reuse as part of portfolio
- Limited recycled water supply
- Can we really get of the creek year-round?
- Settleable solids
- Eliminating dry water run off
- Qualifications of benefits
- Correct mix of storage disposal & DPR
- Deciding on an alternative to the creek
- Modeling realistic solutions to water scarcity
- Seasonal & Diurnal equalization
- Thorough project ideas
- Alternatives to MF/RO/AOP
- Certainty (Actions vs changing regs)
- Balance supply and demand
- Goal=100% beneficial reuse
- TMDL
- No GW storage
- Unique geology
- Seismicity
- Ecosystem
- Constrained alignments
- Topography
- Non-point source solution
- Maint. flow to creek
- Reliance on imported water
- Poor lacking GW
- Storm water
- Reduce discharges to Malibu Creek “O”

Legal

- Regulatory constraints & framework
- Regulations
- Permitting
- Zero discharge to Malibu Creek
- Public health
- Already protected public parklands cannot be default site for reservoir
- Keeping the Tapia plant permits
- TMDL compliance in Malibu Creek and Santa Monica Bay
- Permitting in creek. NPDES
- ESA
- SWRCB/RWQCB
- Voting requirements
- Partnerships with others

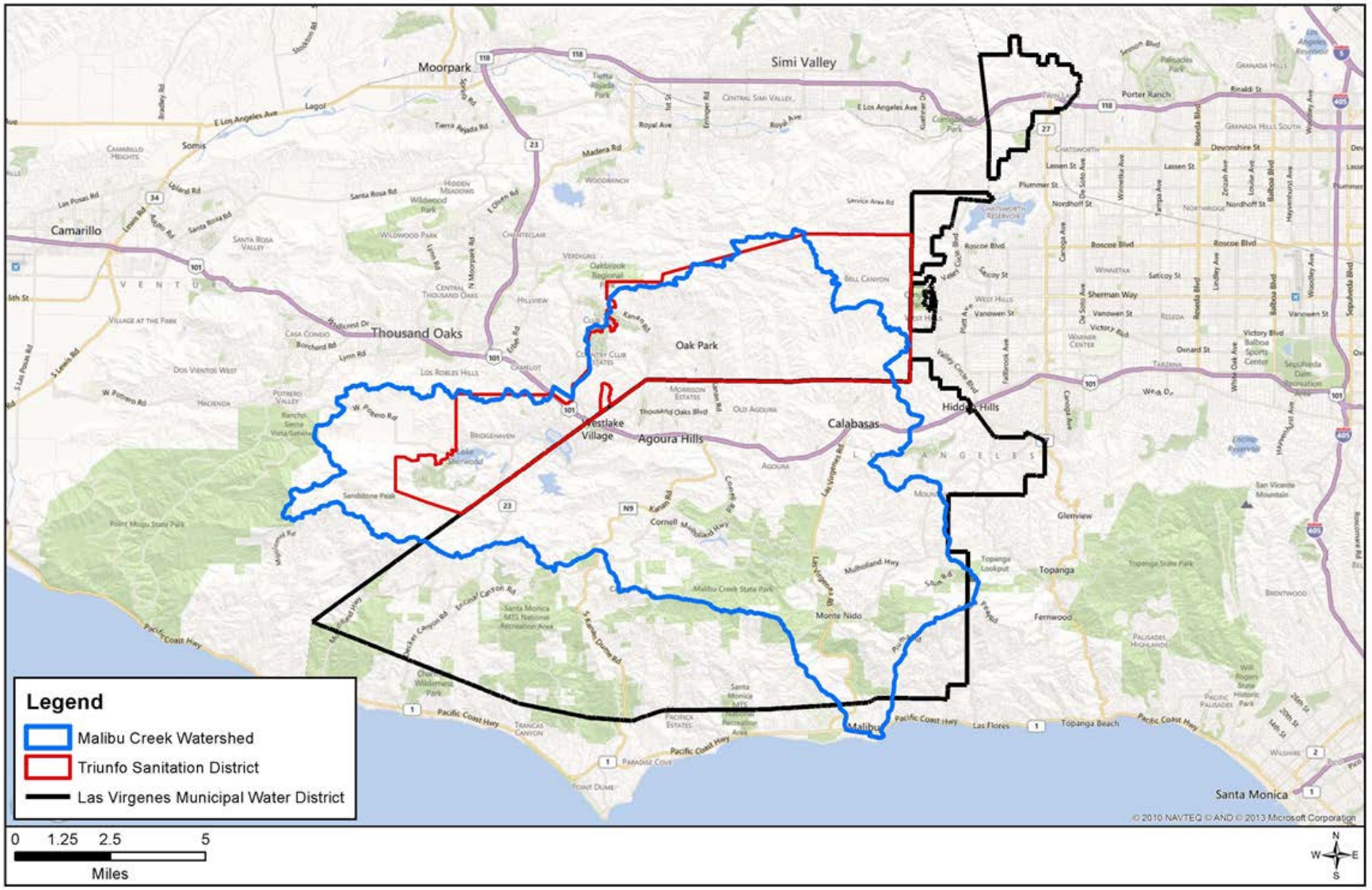
Environmental

- Maintain fish flows
- Ocean water quality is getting/improving better because MS 4 progress
- Maximize resources
- Landscape native plants
- No grass
- Invasive species
- Healthy Malibu Creek ecosystem
- Red legged logs recover in water shed
- Steal head restoration/ protection must not be jeopardized
- Approximate Natural Native Hydrological System
- Improve the Malibu Creek water system
- Environmental stewardship/leadership
- Provide habitat for local Fauna, and Flora
- No water to Pacific
- No water in Malibu Creek
- Dealing with growth
- Resilience
- Regulations (all)
- Permitting requirements
- Take a the long view
- Resilience
- Conservation
- Conservation first
- Clean water in Malibu Creek and Santa Monica Bay
- Greenhouse gas
- Siting of reservoirs and other infrastructure
- Runoff
- Protecting Malibu
- Regulatory Challenges
- Revise ESA no treated H20 in creek
- Protecting beneficial uses of Malibu Creek
- Creek water quality
- Conservation
- Water Conservation
- Need reduction
- Landscape consumption 50%-70% of total
- Minimize runoff
- Unseasonal runoff
- Sustainability
- Clean drinking water
- Consider upstream changes over time (at user) point
- Lessening environmental impacts
- Environmental protection
- Environmental impacts
- Clean water
- Retire with knowing I contributed to the environment
- I believe that WQ in Malibu would improve with “more trees” and “more shad
- CEQA/NEPA
- ESA
- Water Quality in creek
- Fire prone
- Noises
- Wildlife Corridor
- Drought
- Flooding
- Dam failure risk
- Sediment transport
- Odor
- Nearby landfill

Malibu Creek Water Quality

Dave Pedersen, General Manager

Malibu Creek Water Quality



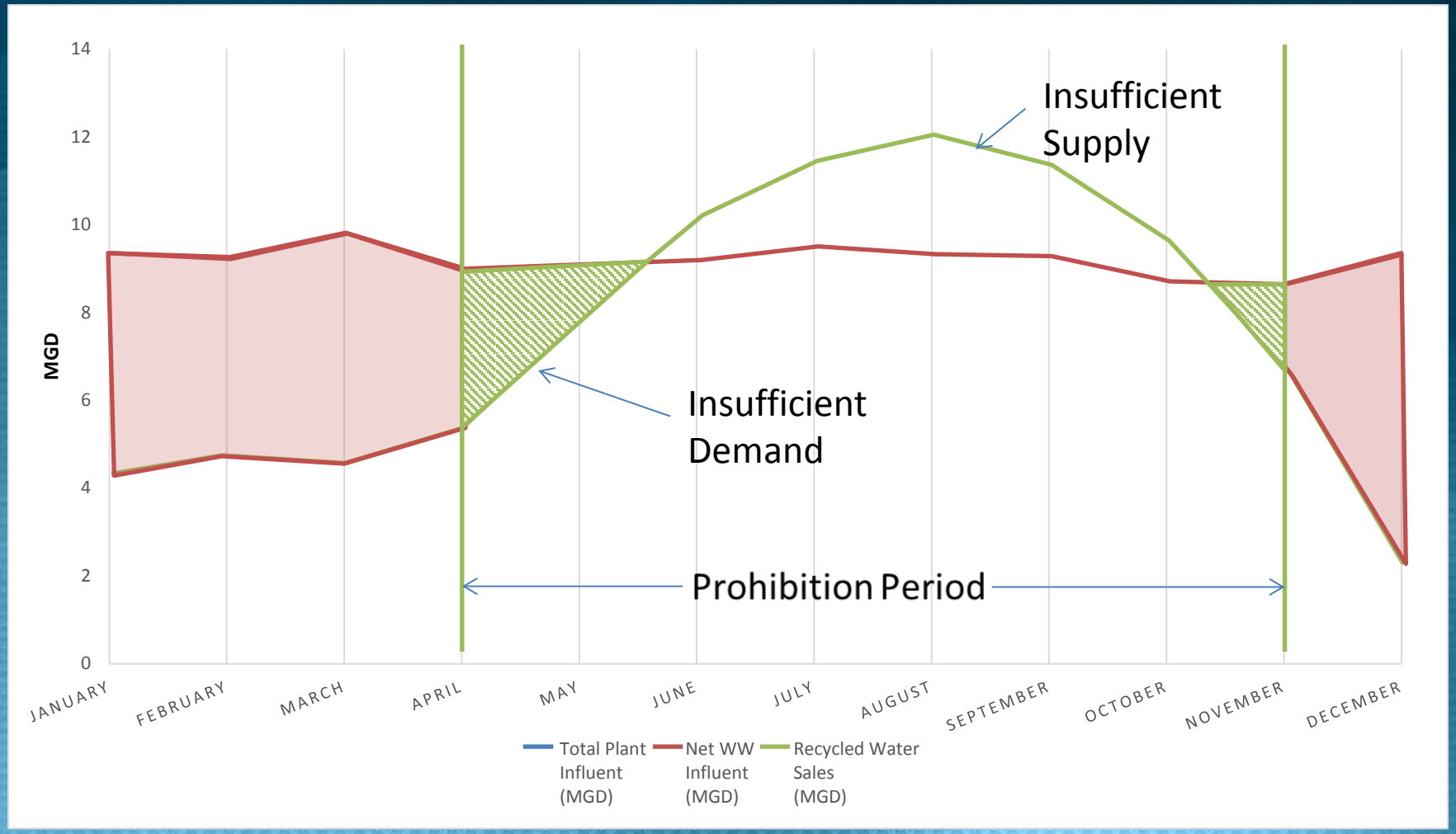
Questions?

Seasonal Storage Presentation

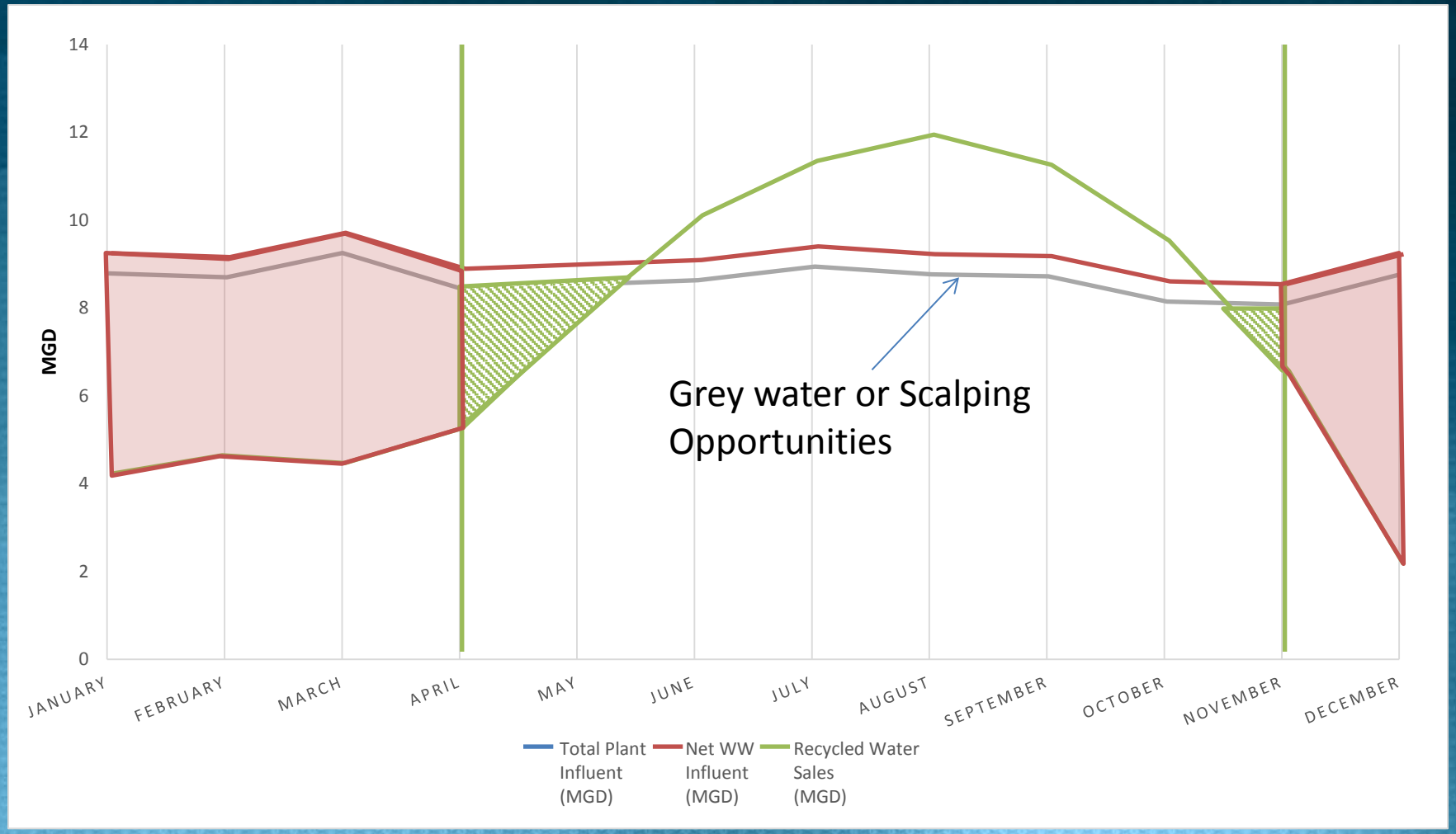
Why is storage needed?

Solution for differences between supply and demand

Storage is Solution for Differences Between Supply and Demand



Storage is Solution for Differences Between Supply and Demand



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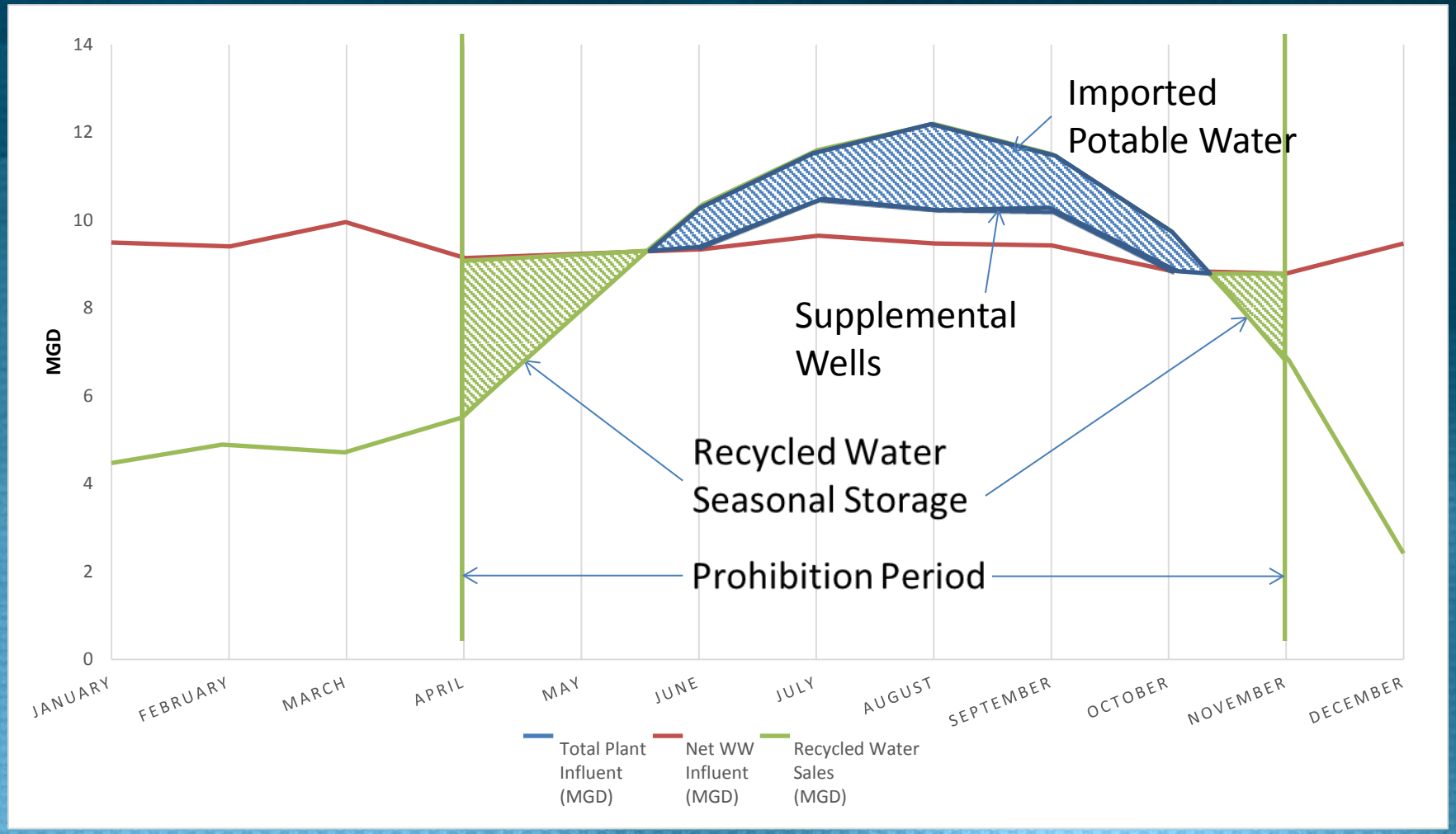

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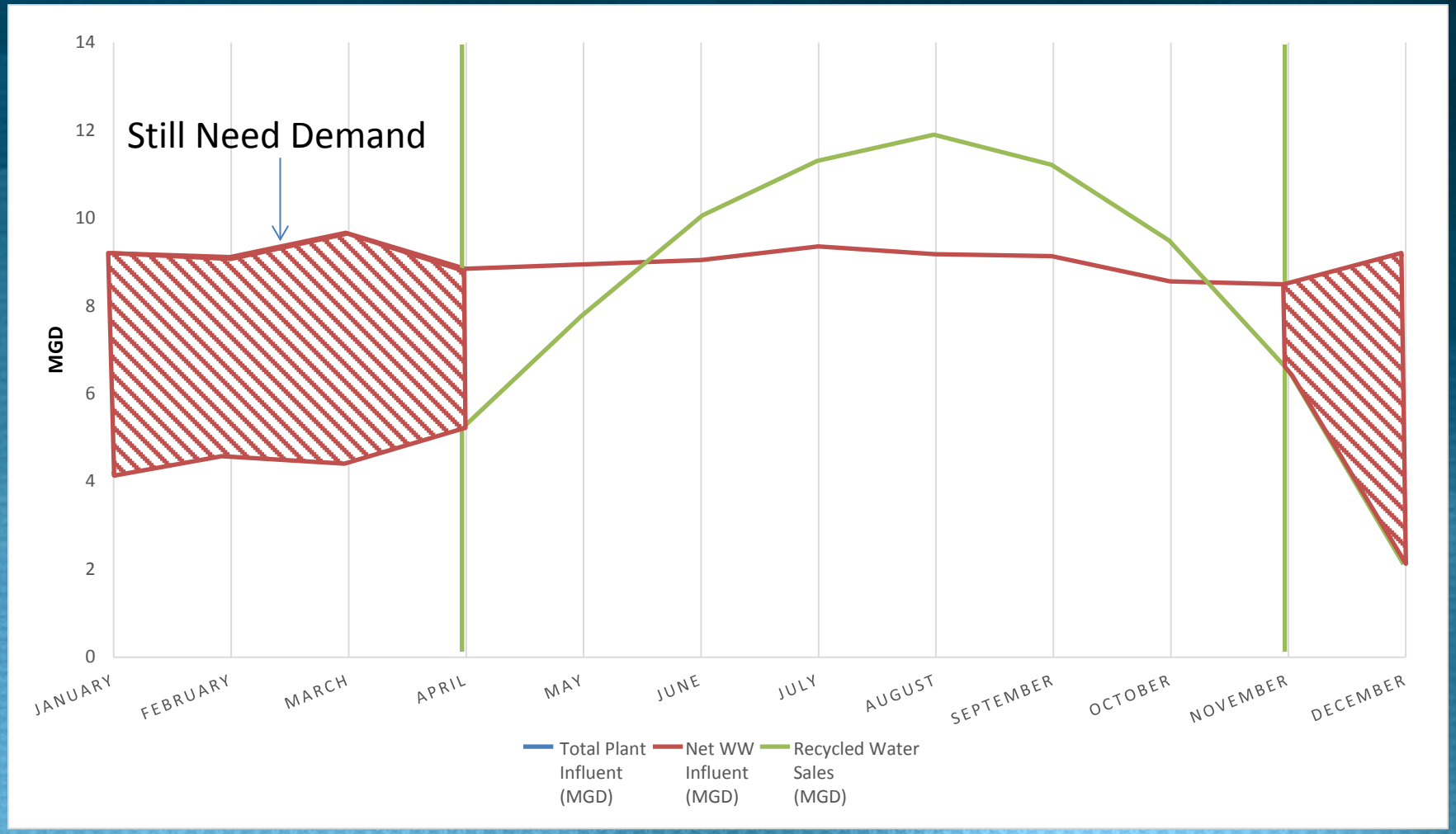


Scenarios to Minimize Discharge to Malibu Creek

- Store more – insufficient
- Grey water or scalping – insufficient
- Reuse Partner(s) to accept extra water
- Use for some other demand

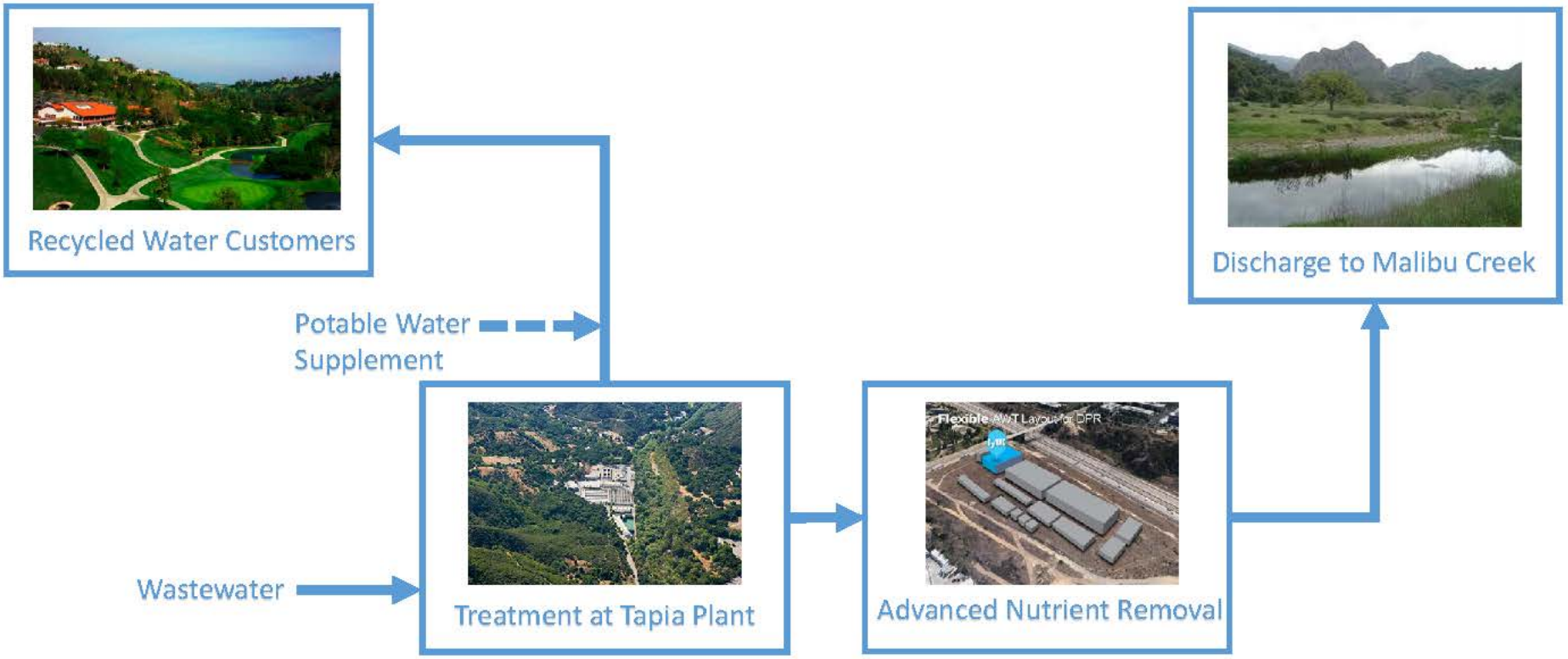
BPAT Part 1

Questions?

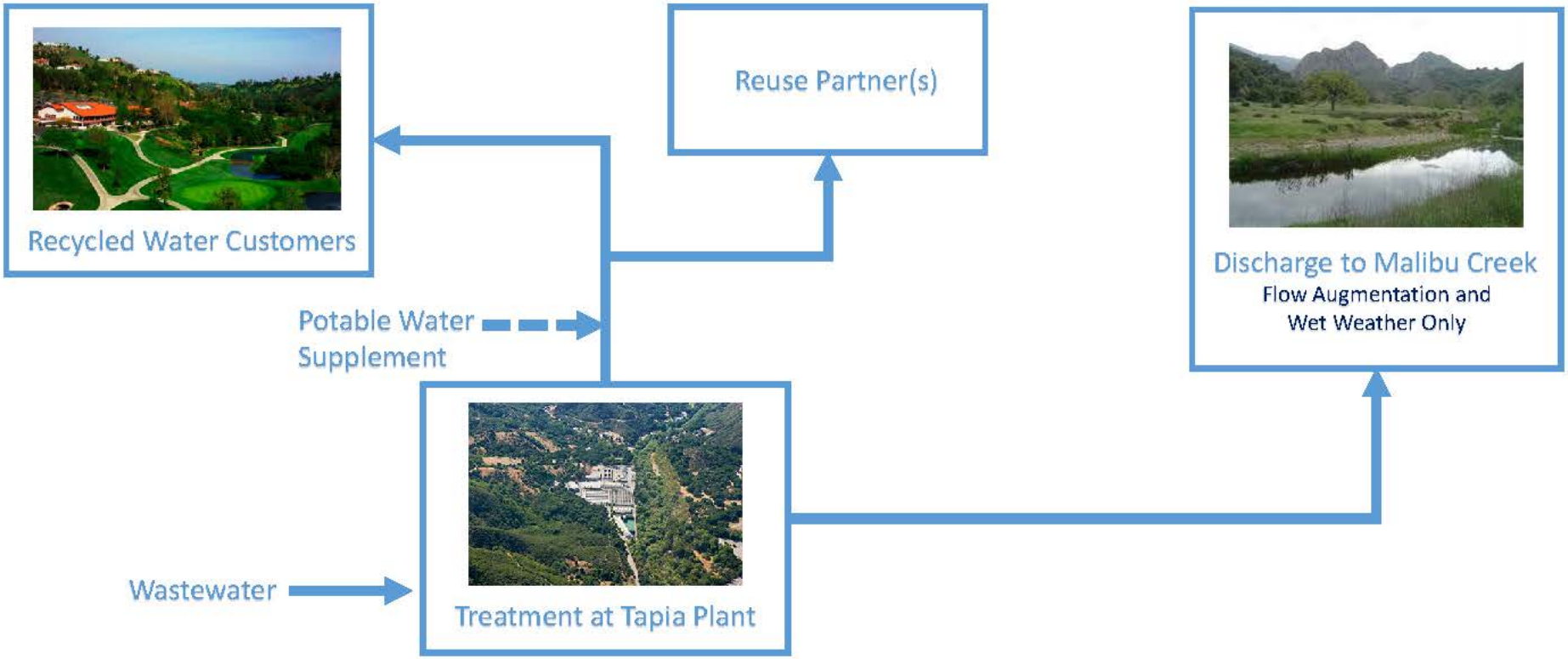
BREAK

Concept Reuse and Storage Scenarios

Scenario Concept #1:
RWQCB TMDL Compliance



Scenario Concept #2:
Recycle and Export



Scenario Concept #3:
Seasonal Storage

Advanced Water Treatment

Treatment & Potable Customers

Recycled Water Customers

B

Seasonal Storage Reservoir

Discharge to Malibu Creek
Flow Augmentation and Wet Weather Only

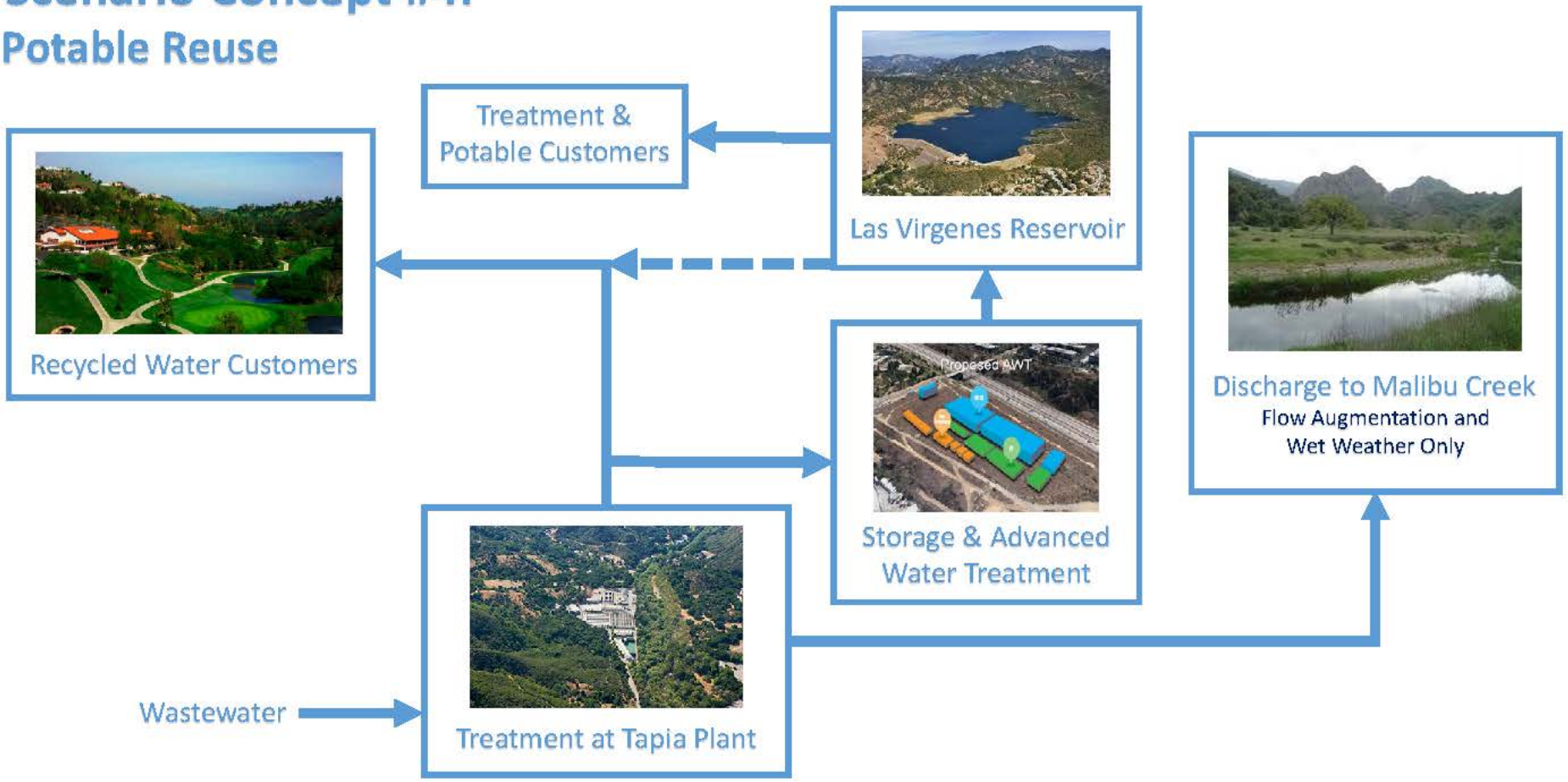
A

Reuse Partner(s)

Treatment at Tapia Plant

Wastewater

Scenario Concept #4:
Potable Reuse



Questions?

BREAK

BPAT Part 2

Questions?

BREAK

NEXT STEPS:

WORKSHOP #3

Tentative Schedule

Interviews with JPA Board Members	December 18-19
Workshop #1	January 29
Workshop #2	February 11
Working Group and Technical Group Meetings	February
Working Group Meeting #2	March 5th
Working Group Meeting #3	March 12th
Workshop #3	March 18th
Board Presentation	April

Questions / Comments / Adjourn