



Kaweah Subbasin Water Marketing Strategy

Strategy Committee Meeting
May 24, 2022

Agenda

1. Welcome and Previous Meeting Recap
2. Legal Team Update
3. Calif. Water Commission White Paper
4. Update to Existing Markets Chapter
5. Key Decision Points
6. Next Steps
7. Public Workshop No. 2 Scheduling



Welcome & Previous Meeting Recap



Legal Team Update

4.0 ANALYSING WATER RIGHTS

4.1 California Water Law and SGMA

4.1.1 Background and History

4.1.2 Surface Water vs Groundwater Systems

4.1.3 Central Valley Project

4.1.4 State Water Project

4.1.5 Pre-1914 Water Rights

4.1.2 Summary of Groundwater Rights and Case Law

4.1.3 SGMA

4.1.6 Authorities Regarding Transfers of Allocations

4.2 Kaweah Subbasin

4.2.1 Water Accounting Framework

4.2.2 GSA-specific Considerations for Accounting Framework



Calif. Water Commission | Groundwater Trading White Paper

California Water Commission White Paper

Delivered to California Water Commission on May 19, 2022
CWC approved the White Paper
CWC Established a Technical Advisory Committee

- Ag
- DAC
- Environmental
- GSA



California
WATER COMMISSION

**A State Role in Supporting Groundwater Trading
with Safeguards for Vulnerable Users:
Findings and Next Steps**

January 19, 2022

Background & Overview

Water Resilience Portfolio – Action 3.6

- DWR, SWRCB, CDFW, CDFA to work together to create flexibility through groundwater markets
- California Water Commission was asked to use their public forum process to explore how the State could support water markets in California

California Water Commission Process

- Commission staff held interviews with stakeholders – 13 small group discussions
- Met with entities and folks outside of California working on water markets (22 interviews)
- Hosted Panel discussions (4 total)
- Attended local workshops and meetings on SGMA and Water Markets

White Paper

- Provides the results of the outreach and recommendations
- Cross Cutting Themes
 - Trust
 - Time and Information
 - Accurate Data and a sound GSP
 - Just one tool in the Toolbox
 - State does have a role to play
- Considerations for safeguarding
 - Natural Resources
 - Small and Medium Farms
 - DACs

Background & Overview

Findings

1. Safeguards for Vulnerable Users
2. Identification and involvement of small and medium sized farms
3. Identification and involvement of DACs
4. Characteristics of well managed local groundwater trading (BMPs)
5. Proactive Management
6. Stakeholder Engagement
7. Accurate and reliable data
8. Market Power
9. Oversight and Enforcement
10. Start Small
11. Scale Up

Next Steps – Group 1

1. Develop a workplan for implementation
2. Conduct SGMA related oversight
3. Convene stakeholders to share information
4. Identify and assess GSA needs
5. Engage and support vulnerable users
6. Create digital resources and catalog available trading information
7. Develop Best Management Practices (BMPs)
8. Incentivize well managed groundwater trading
9. Evaluate incentives for wetlands
10. Support groundwater technical assistance programs for small and medium farms

Next Steps – Group 2

1. Examine existing authorities
2. Create Standard Principles and rules
3. Create oversight mechanisms

Calif. Water Commission – White Paper

“Without good governance in place and a thoughtful approach, trading programs run the risk of not meeting their goals and creating negative, third-party impacts.”

Groundwater Trading Best Practices

Transparent Process

Clearly articulated goals

Inclusive stakeholder engagement

Locally relevant mechanisms and rules

Safeguards for vulnerable users

Evaluation using an iterative process

Shortcomings of the White Paper

“Transparency vs. Confidentiality”

“Measuring Water Use”

“Status of Groundwater Trading Programs in California”



Update to Existing Water Markets Chapter

Evaluated Water Markets

8 California Adjudicated Basins with Trading Institutions

Central	Puente	Tehachapi
Goleta	Santa Paula	W San Bernardino
Mojave	Scott River	

9 Additional Markets from around the Western United States & Australia

Buena Vista, California	Central Kansas Water Bank
Pajaro Valley*, California	Edwards Aquifer, Texas
Westlands Irrigation District	Oregon Freshwater Trust
Eastern Tule, Tulare County	Twin Platte District, Nebraska
Fox Canyon, Ventura County	Murray-Darling Basin, Australia

*Pajaro Valley is in planning stage and has not been implemented

Existing Water Markets – Allocation

	Market Origin			Method of Allocation		Allocation Flexibility				Monitoring of Water Use				
	CA Adjudicated Basin	Legal Settlement	SGMA	Historical Use	Equal Shares	Carryover	Borrowing	Rolling Average	Well/Parcel Aggregation	Metering			Aerial Imaging	Satellite Remote Sensing
										metering w/self-report	metering or pump test & electrical rec.	metering w/ telemetric monitoring		
Central	•			•		•	•							
Goleta	•			•										
Mojave	•			•							•			
Puente	•			•	•									
Santa Paula	•			•				•		•				
Scott River	•			•	•									
Tehachapi	•			•			•							
W San Bernardino	•			•				•						
Buena Vista				•										
Pajaro Valley*				•										
Westlands				•										
Fox Canyon			•	•		•			•			•		
Eastern Thule			•		•	•								•
Twin Platte		•			•								•	
Central Kansas						•				•				
Edwards Aquifer		•		•										
OR Freshwater Trust														
Murray-Darling				•						•				

*Note: Pajaro Valley fallowing auction is in planning stage and has not been conducted

Existing Water Markets – Exchange Type

	Exchange Type						Price Information			Term of Transfers	
	Formal		Informal				None	Transaction specific	Aggregate Prices	Temporary	Permanent
	Clearinghouse	Auction	Coffee Shop	Bulletin Board	Brokerage	Co-Op					
Central			•				•			•	•
Goleta			•				•				•
Mojave			•					•		•	•
Puente			•				•			•	•
Santa Paula			•			•	•			•	•
Scott River	•		•				•			•	•
Tehachapi			•				•			•	
W San Bernardino			•				•			•	•
Buena Vista		•							•	•	
Pajaro Valley*		•						•		•	
Westlands		•					•			•	
Fox Canyon	•								•	•	
Eastern Thule				•			•			•	
Twin Platte	•	•	•	•	•				•		•
Central Kansas	•								•	•	
Edwards Aquifer			•	•	•		•			•	•
OR Freshwater Trust	•						•			•	•
Murray-Darling	•		•	•	•			•		•	•

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Existing Water Markets – Adverse Impacts

	Mitigation of Adverse Impacts					Market Testing
	Geographic Boundaries	Directional Restrictions	Exchange Rates	Screening of transfers	Reducing Market Power	Pilot Markets
Central						
Goleta						
Mojave	•					
Puente						
Santa Paula				•		
Scott River				•		
Tehachapi				•		
W San Bernardino				•		
Buena Vista						
Pajaro Valley*						
Westlands						
Fox Canyon	•	•			•	•
Eastern Thule						
Twin Platte	•		•		•	
Central Kansas			•			
Edwards Aquifer		•				
OR Freshwater Trust						
Murray-Darling	•					

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Key Decision Points

Existing Water Markets

Relevant Principles

- Flexibility
- Transparency
- Equity & Inclusion

	Market Structure						Price Information			Term of Transfers	
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Water Market Guiding Principles

- **Flexibility**
Provide water users with the flexibility to comply with new regulations and to respond to changing water availability
- **Adaptability**
The WMS should promote adjustments in practices, rules and procedures as conditions change and as the experience of market participants grows and new information becomes available.
- **Transparency**
The process of developing the WMS and for conducting market activities should be visible and understandable to interested stakeholders. Transparency includes the availability of accurate and reliable water use data and the timely reporting of water market activity.
- **Do No Harm**
The WMS strategy should anticipate and avoid adverse impacts to water users and uses (add SGMA citation).
- **Equity & Inclusion**
The WMS should be developed with an open process that includes the full range of potential market participants and other interested parties. Implementation of the WMS should be relatively simple and understandable to interested parties.
- **One Basin-wide Strategy**
The WMS will develop a common framework available to all Kaweah Subbasin GSAs.

Market Structure – Exchange Type

Market Structure refers to all of the mechanisms that facilitate transfers between buyers and sellers. Foundational components determine:

- **how a participant learns the status of their own pumping**
- **how they validate the availability of another participant's allocation**
- **how they submit bids and offers and agree to a price for a transfer**
- **how they receive regulatory approval for a particular transfer**



Existing Water Markets

Relevant Principles

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- Equity & Inclusion

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Twin Platte	•	•	•	•	•				•		•
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Existing Water Markets

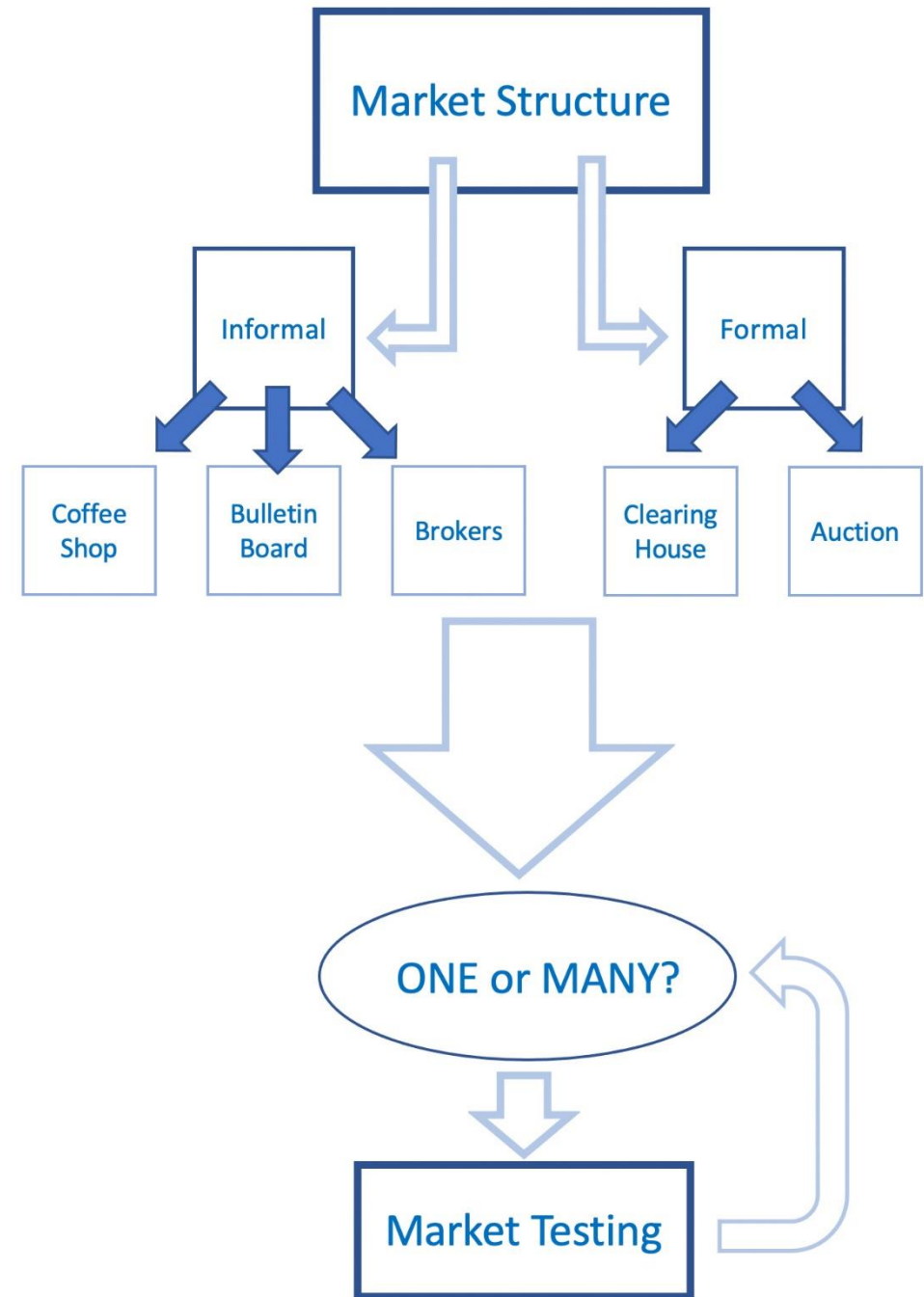
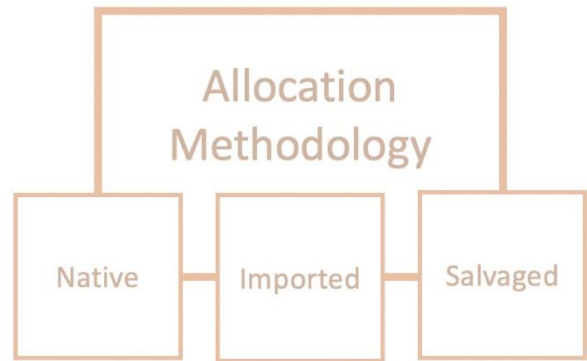
Relevant Principles

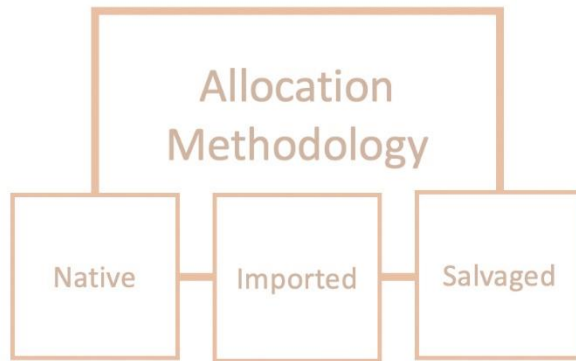
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- Equity & Inclusion

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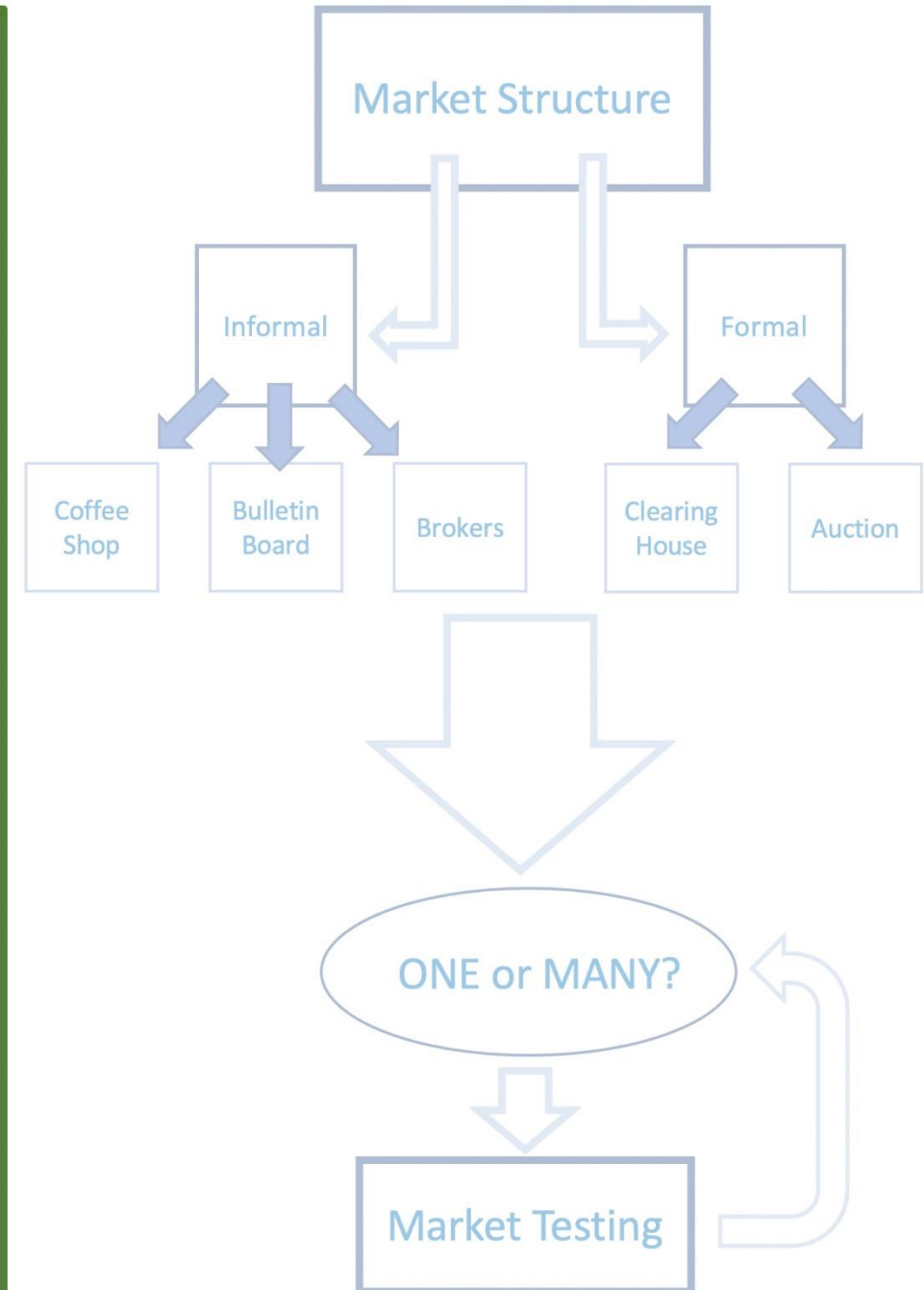
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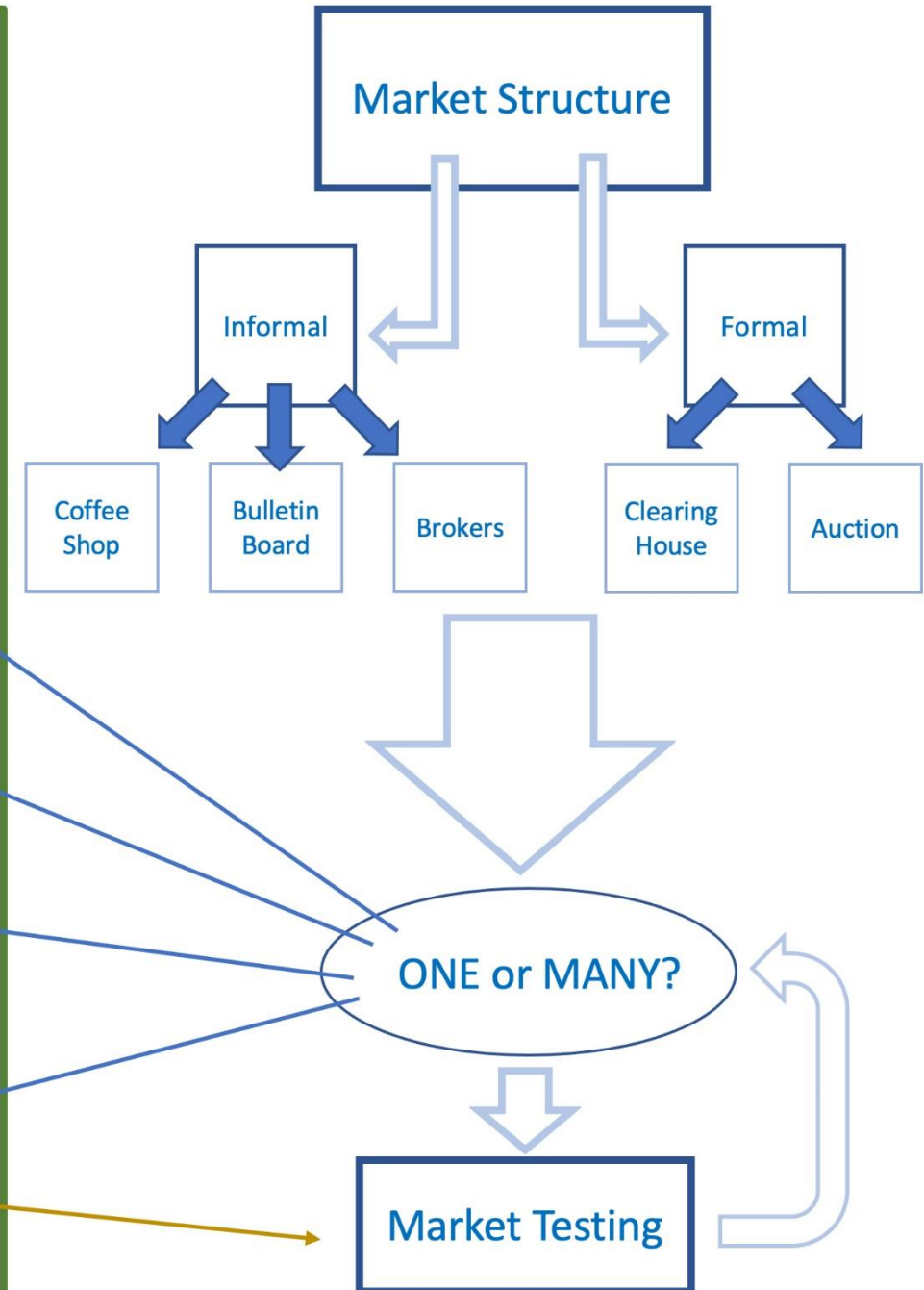
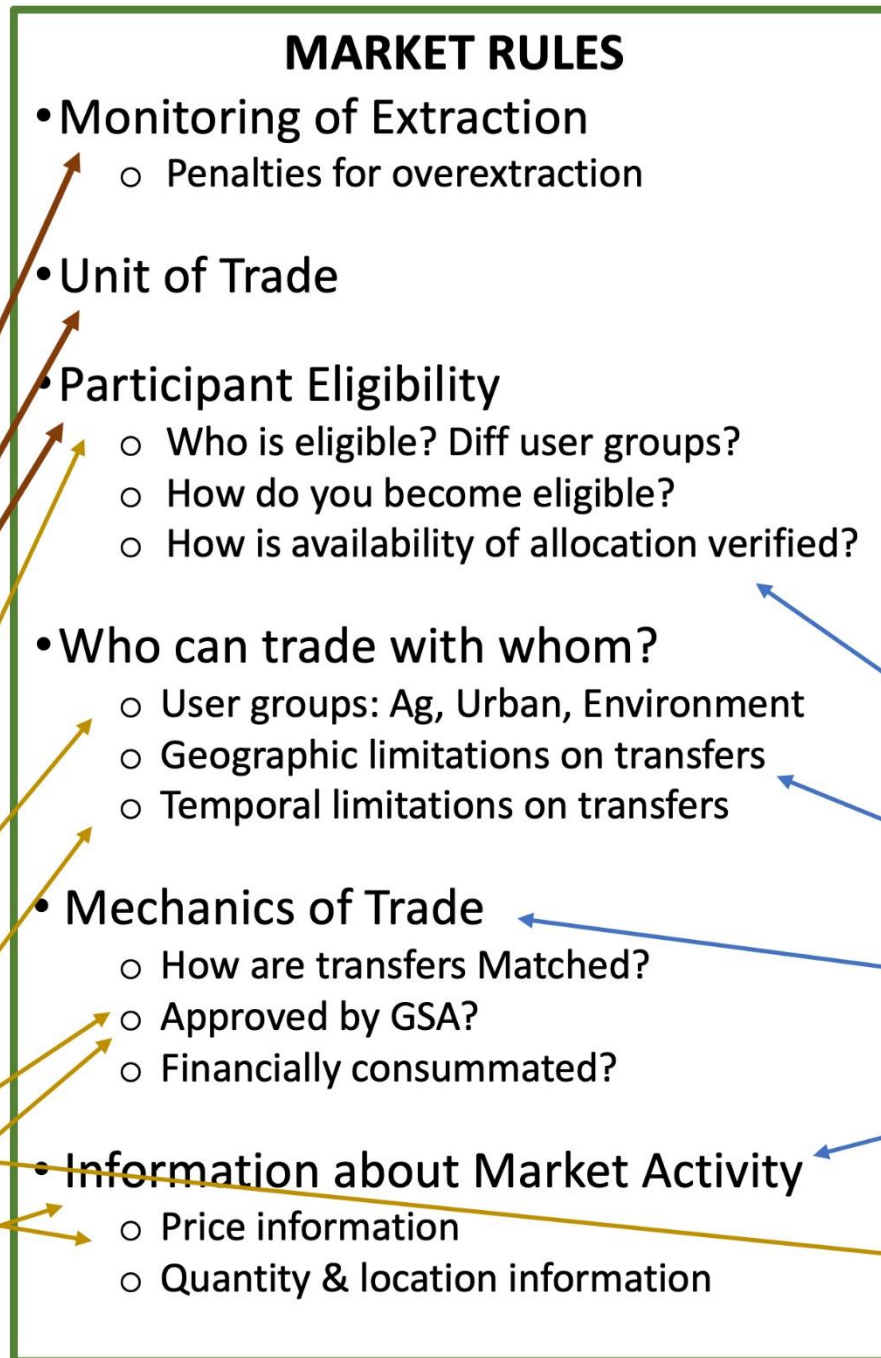
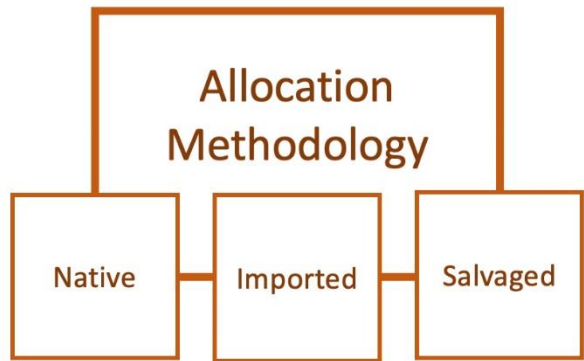
WMS Development – Flow Chart





- ### MARKET RULES
- **Monitoring of Extraction**
 - Penalties for overextraction
 - **Unit of Trade**
 - **Participant Eligibility**
 - Who is eligible? Diff user groups?
 - How do you become eligible?
 - How is availability of allocation verified?
 - **Who can trade with whom?**
 - User groups: Ag, Urban, Environment
 - Geographic limitations on transfers
 - Temporal limitations on transfers
 - **Mechanics of Trade**
 - How are transfers Matched?
 - Approved by GSA?
 - Financially consummated?
 - **Information about Market Activity**
 - Price information
 - Quantity & location information







Next Steps



Public Workshop No. 2 | Scheduling