



Kaweah Subbasin Water Marketing Strategy

Strategy Committee Meeting
April 26, 2022

Agenda

1. Welcome and Previous Meeting Recap
2. WMS Document Structure
3. Guiding Principles – Follow-up
4. Existing Water Markets Chapter
5. Public Workshop No. 2 - Scheduling
6. Next Steps



Welcome & Previous Meeting Recap



WMS Document Structure



WMS Guiding Principles | Follow-up

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 Kaweah Subbasin Market Strategy (formerly Structural Consistency)**
The WMS will develop a common framework available to all Kaweah Subbasin GSAs.



Existing Water Markets Chapter

- a. *Overview of Existing Water Markets Chapter*
 - *Key Market Features - Measles Chart*
 - *Decision Points & Guiding Principles*
- b. *Open Discussion/Q&A*

Existing Water Markets Chapter

A Water Market is defined as any Management Strategy that:

- Caps total water use within a defined geographic region
- Allocates a portion of the cap to individual users
- Allows users to transfer allocation to another party for beneficial use

Evaluated Water Markets

8 California Adjudicated Basins with Trading Institutions

Central
Goleta
Mojave

Puente
Santa Paula
Scott River

Tehachapi
W San Bernardino

9 Additional Markets from around the Western United States & Australia

Buena Vista, California
Pajaro Valley*, California
Westlands Irrigation District
Fox Canyon, Ventura County

Central Kansas Water Bank
Edwards Aquifer, Texas
Oregon Freshwater Trust
Twin Platte District, Nebraska
Murray-Darling Basin, Australia

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

Existing Water Markets Chapter

While markets vary based on structure, operating mechanisms and rules, all markets share common components:

- **Allocation**
- **Market Structure**
- **Mitigation of Adverse Impacts**

Existing Water Markets Chapter

While markets vary based on structure, operating mechanisms and rules, all markets share common components:

- **Allocation** - includes different methodologies for assigning a specific quantity of pumping to individual parties as well as approaches to monitoring and enforcing individual allocations
- **Market Structure** - includes different mechanisms for facilitating transfers of allocation as well as the availability of price information
- **Mitigation of Adverse Impacts** - includes various rules which seek to avoid negative impacts to individuals, groups or the environment as well as systems for discovering and responding to unintended consequences

Existing Water Markets – Key Features

	Market Origin		Market Structure						Price Information			Term of Transfers		Mitigation of Adverse Impacts					Market Testing	Method of Allocation		Allocation Flexibility					Monitoring of Water Use				
	CA Adjudicated Basin	Legal Settlement	Formal		Informal				None	Transaction specific	Aggregate Prices	Temporary	Permanent	Geographic Boundaries	Directional Restrictions	Exchange Rates	Screening of transfers	Reducing Market Power	Pilot Markets	Historical Use	Equal Shares	Carryover	Borrowing	Rolling Average	Well Aggregation	Metering			Aerial Imaging	Satellite Remote Sensing	
			Clearinghouse	Auction	Coffee Shop	Bulletin Board	Brokerage	Co-Op																		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				•							•		•						•												
Twin Platte		•		•	•	•	•				•		•				•		•		•			•			•		•		
Central Kansas				•							•		•						•												
Edwards Aquifer		•		•	•	•	•		•			•	•		•				•		•				•						
OR Freshwater Trust				•					•			•	•																		
Murray-Darling				•	•	•	•			•		•	•	•					•							•					

Existing Water Markets – Key Features

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

	Market Origin		Method of Allocation		Allocation Flexibility				Monitoring of Water Use				
	CA Adjudicated Basin	Legal Settlement	Historical Use	Equal Shares	Carryover	Borrowing	Rolling Average	Well 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	•			•									
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Twin Platte		•		•								•	
Central Kansas					•				•				
Edwards Aquifer		•	•										
OR Freshwater Trust													
Murray-Darling			•						•				

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Existing Water Markets – Monitoring Water Use

	Market Origin		Method of Allocation		Allocation Flexibility				Monitoring of Water Use				
	CA Adjudicated Basin	Legal Settlement	Historical Use	Equal Shares	Carryover	Borrowing	Rolling Average	Well Aggregation	Metering			Aerial Imaging	Satellite Remote Sensing
									metering w/self- report	metering or pump test & electrical rec.	metering w/ telemetric monitoring		
Central	•		•		•	•							
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Mojave	•		•							•			
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Twin Platte		•		•								•	
Central Kansas					•				•				
Edwards Aquifer		•	•										
OR Freshwater Trust													
Murray-Darling			•						•				

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Existing Water Markets – Market Structure

	Market Structure						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			•			•	•			•	•
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Twin Platte	•	•	•	•	•				•		•
Central Kansas	•								•	•	
Edwards Aquifer			•	•	•		•			•	•
OR Freshwater Trust	•						•			•	•
Murray-Darling	•		•	•	•			•		•	•

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Existing Water Markets – Market Structure

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 – Market Structure

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Murray-Darling	•		•	•	•			•		•	•

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Existing Water Markets – Term of Transfers

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Existing Water Markets – Mitigating 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				•		
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Existing Water Markets – Market Testing

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OR Freshwater Trust						
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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.
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- **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.
- **(Structural Consistency)**
The WMS will develop a common framework available to the Kaweah Subbasin GSAs.

Existing Water Markets

Relevant Principles

- Flexibility
- Transparency
- Equity & Inclusion

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Buena Vista		•							•	•	
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Fox Canyon	•								•	•	
Twin Platte	•	•	•	•	•				•		•
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Existing Water Markets

Relevant Principles

- Transparency
- Equity & Inclusion

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Existing Water Markets

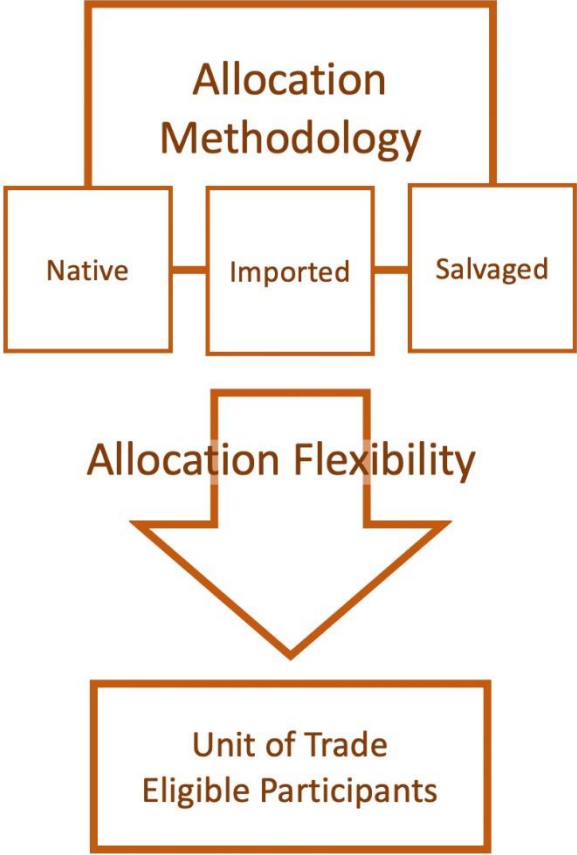
Relevant Principles

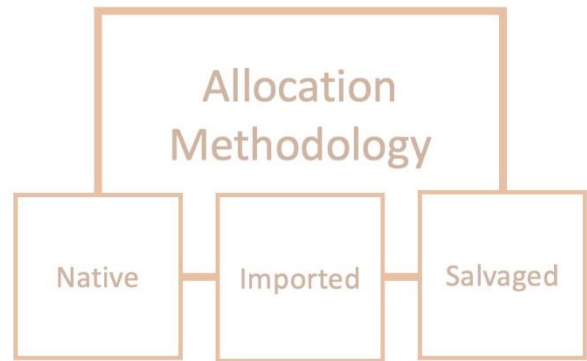
- Flexibility
- Do No Harm

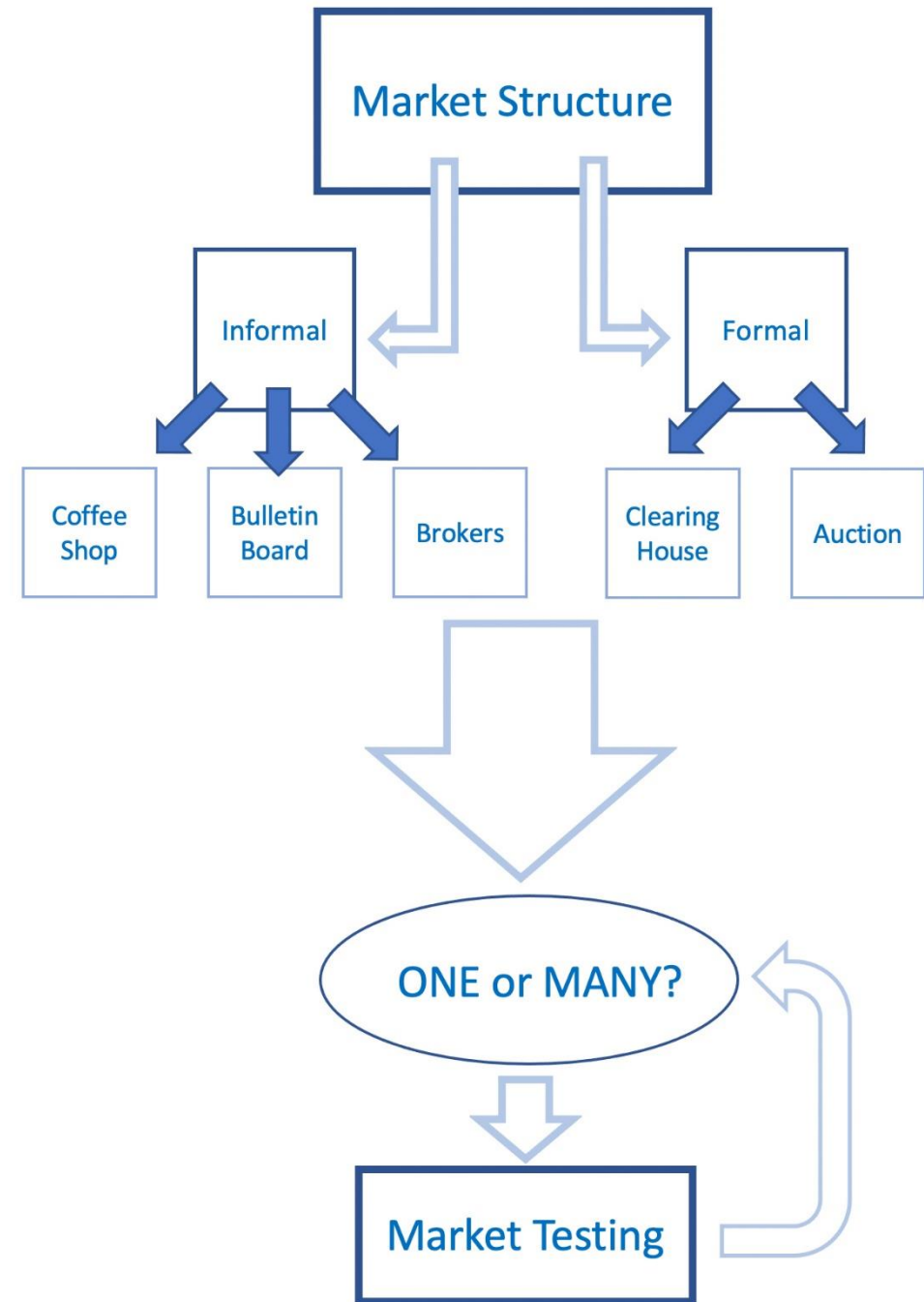
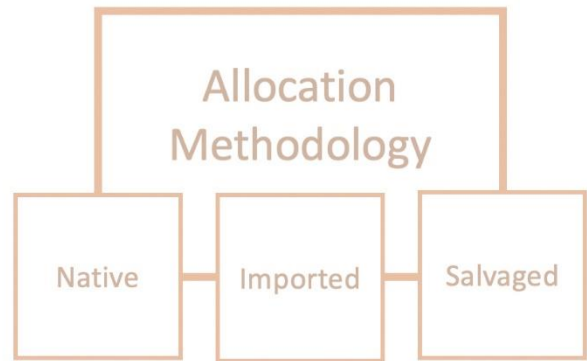
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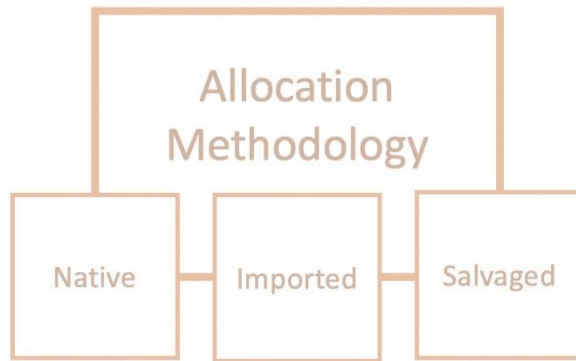
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WMS Development – Flow Chart

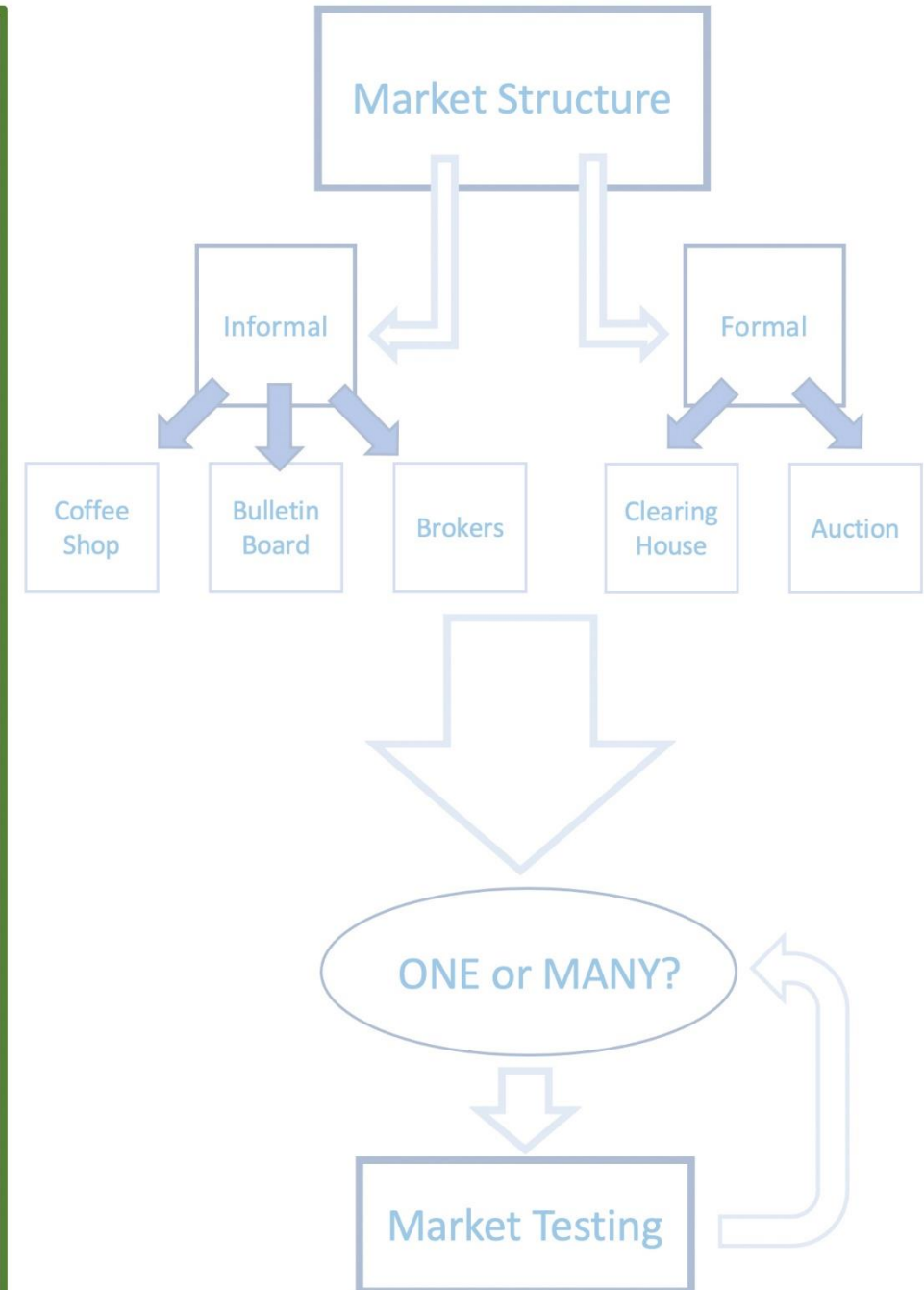


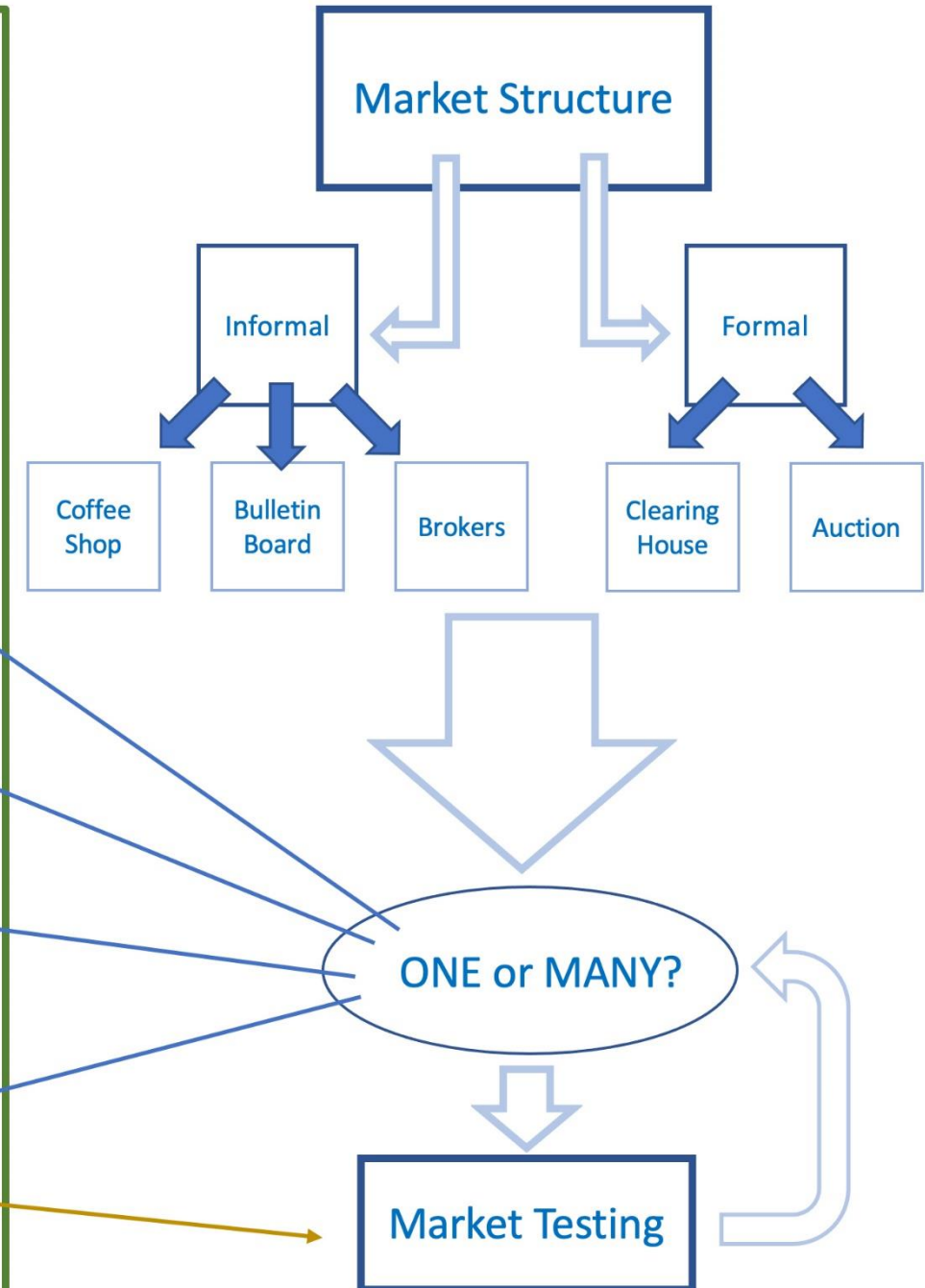
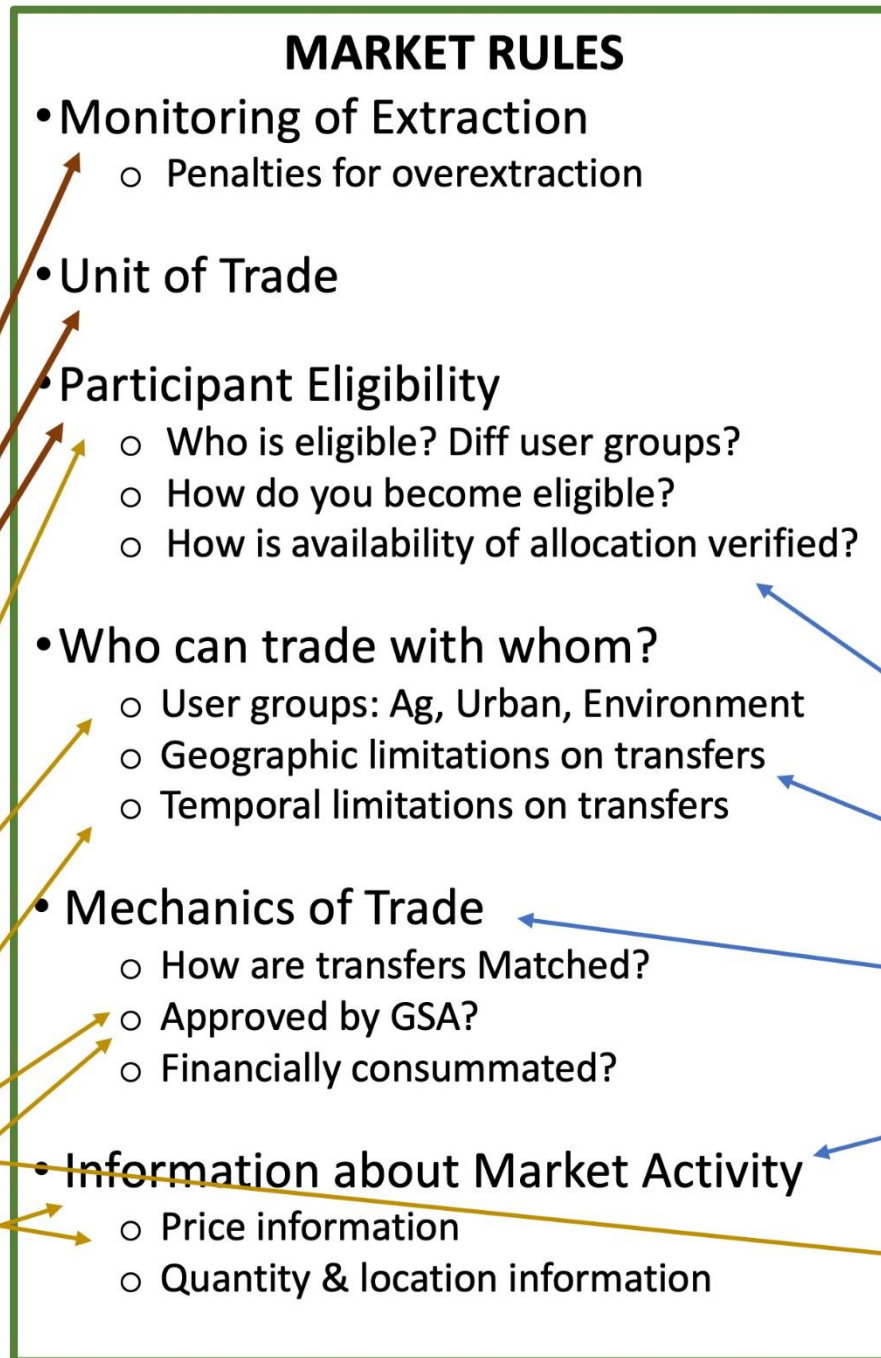
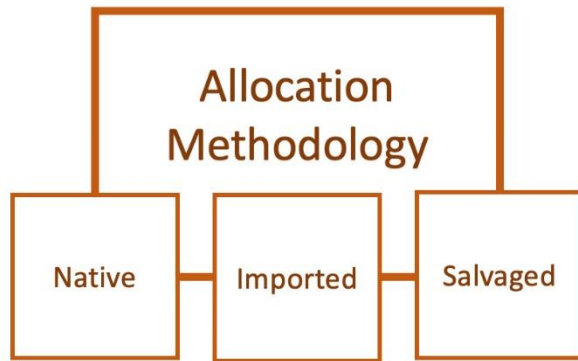






- ### MARKET RULES
- **Monitoring of Extraction**
 - Penalties for overextraction
 - **Unit of Trade**
 - **Participant Eligibility**
 - Who is eligible? Diff user groups?
 - How do you become eligible?
 - How is availability of allocation verified?
 - **Who can trade with whom?**
 - User groups: Ag, 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







Public Workshop No. 2 | Scheduling



Next Steps & Action Items