Salinas Valley Basin GSA

Discussion on Pumping Allocations

Presented to Eastside Subbasin Committee
February 3, 2021

Prepared by

MONTGOMERY & ASSOCIATES

Introduction

Summary of Process

- November 18, 2020 – Pumping Allocations Workshop, where Valerie Kincaid gave an overview of allocation structures
- December 2020 – Survey on pumping allocations
- January/February 2021 – Subbasin Committee Discussions on pumping allocations
- Next Steps:
  - January workshop on financing options
  - March/April discussions on financing options
  - March/April update on projects & management actions, including pumping management

Goal of Today's Discussion

- Review what pumping allocations can be used for
- Discuss what stakeholders view as a fair allocation structure (how to split up the pie)
- Discuss how this fits into GSP

Introduction

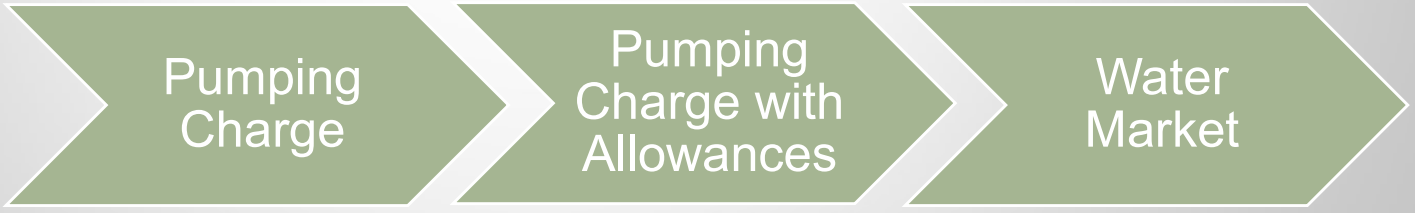
- Under SGMA, each Subbasin must pump within its long-term sustainable yield (amount of water that can be pumped without causing undesirable results).
- The goal of a pumping allocation structure is to figure out how this sustainable yield is divided up amongst beneficial users (who gets what when) to jointly manage groundwater…*and ideally avoid adjudication and the State stepping in.*
- **Key discussion question: how do we equitably divide the available groundwater, whether we need to now or in the future?**
- Think about in two parts:
  - Pumping allocation structure
  - Pumping controls

Key points from the Pumping Allocations Workshop include:

- It is only the native common supply of groundwater that is allocated
- Pumping allocations do not include water that has been diverted from a river, imported, or salvaged/recycled
- Pumping allocations are not water rights and cannot determine a water right
- Options should be established in line with case law
- Pumping allocations are simply a way to acknowledge every pumper has their fair share of the available groundwater
- Allocation structures should create rules that apply to categories of users (irrigators, municipalities, etc.), not individual users
- Factors that should guide the development of allocations include: consensus, guidance from prior adjudications, and basin circumstances
- Caution should be exercised with regard to municipal supply and dormant water rights holders

There are three ways that pumping allocations might be used in the Eastside:

- To help **manage pumping**, now or in the future.
  - Assist with meeting groundwater storage SMCs, and plan for meeting them in the future
  - Pumping allocations could underpin temporary pumping cutbacks, should they become needed during an **extended drought**.
  - We will NOT discuss methods of controlling pumping today
- As a basis for pumping charges to **generate funding** for projects



- To help incentivize implementation of projects that enhance **recharge**.

Projects & Management Actions

- GSP must include projects and management actions with sufficient quantifiable benefits to meet sustainability
- Projects and management actions can be separated into priority vs alternative to show the Subbasin has sufficient options for meeting sustainability for 50 years
- Implementation chapter should include plan for funding projects and management actions
- Need to show DWR that we have sufficient tools

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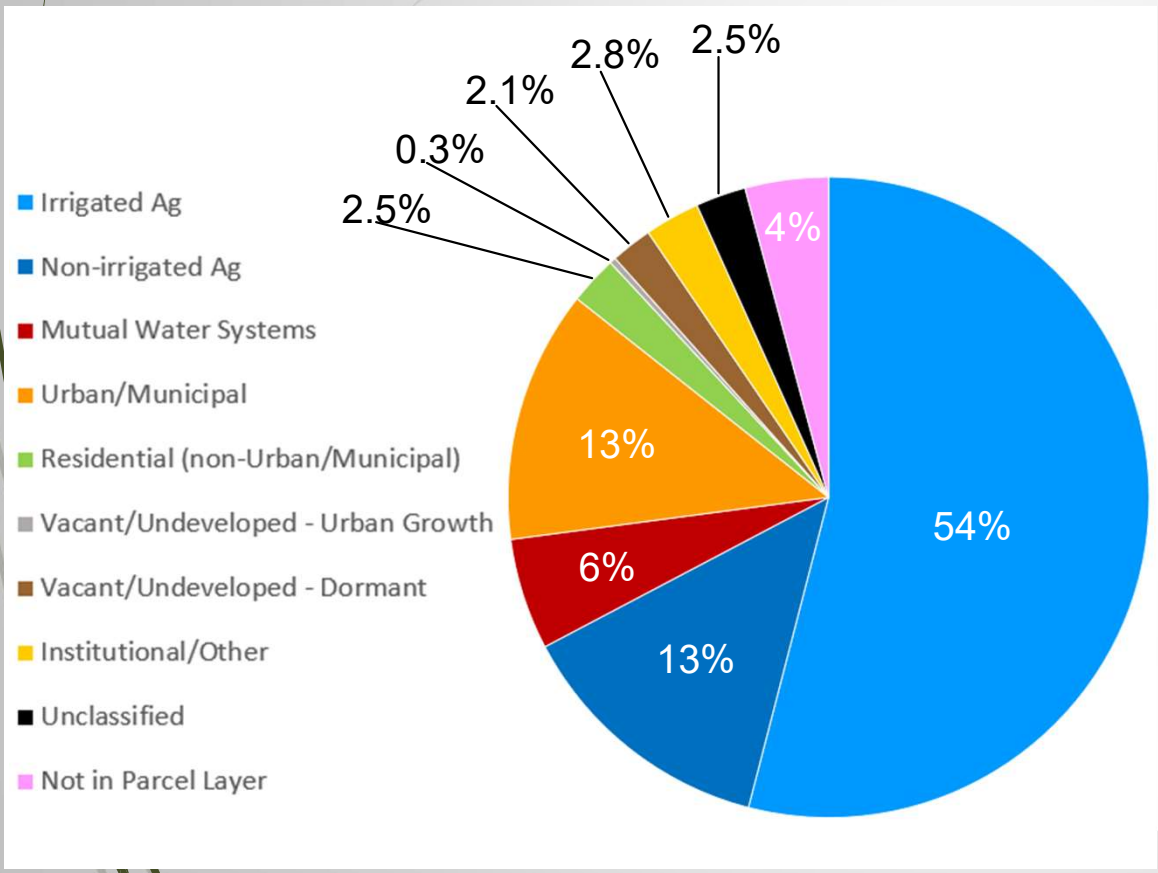
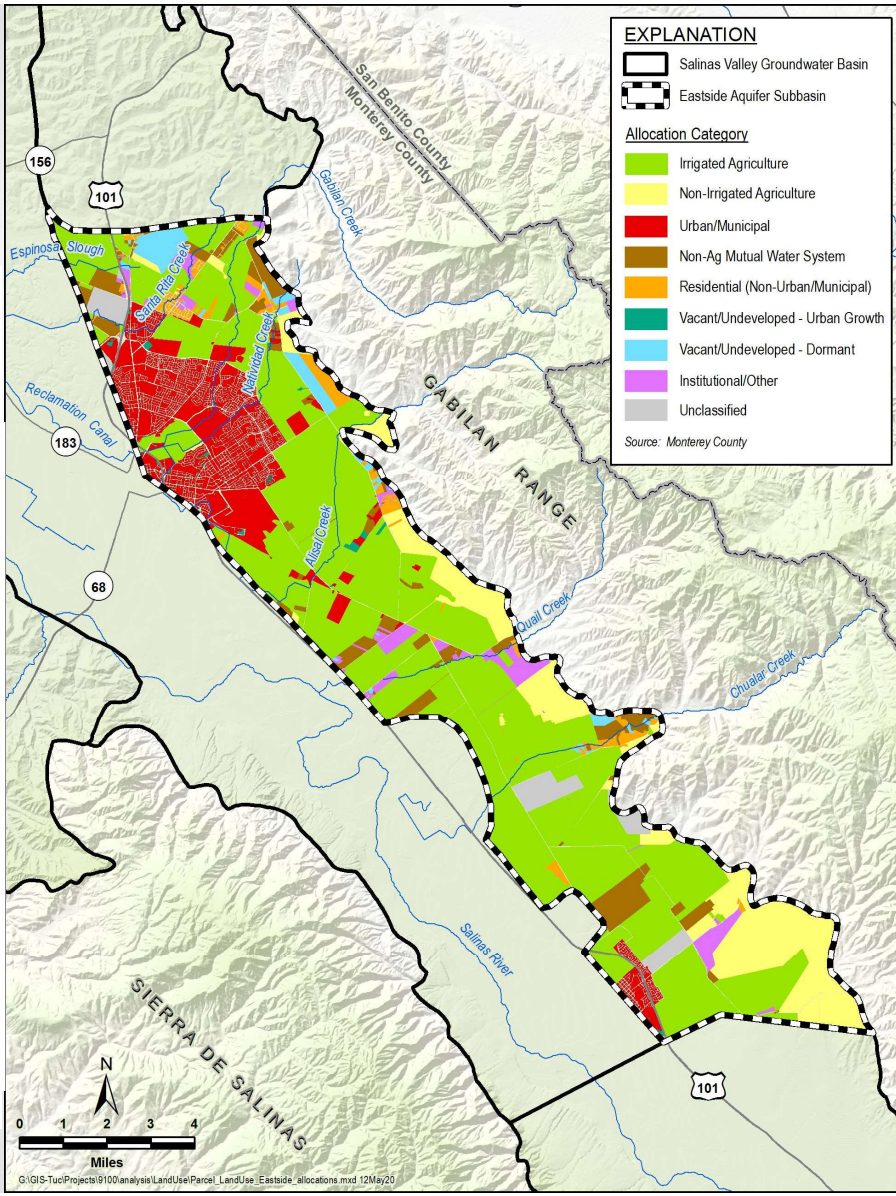
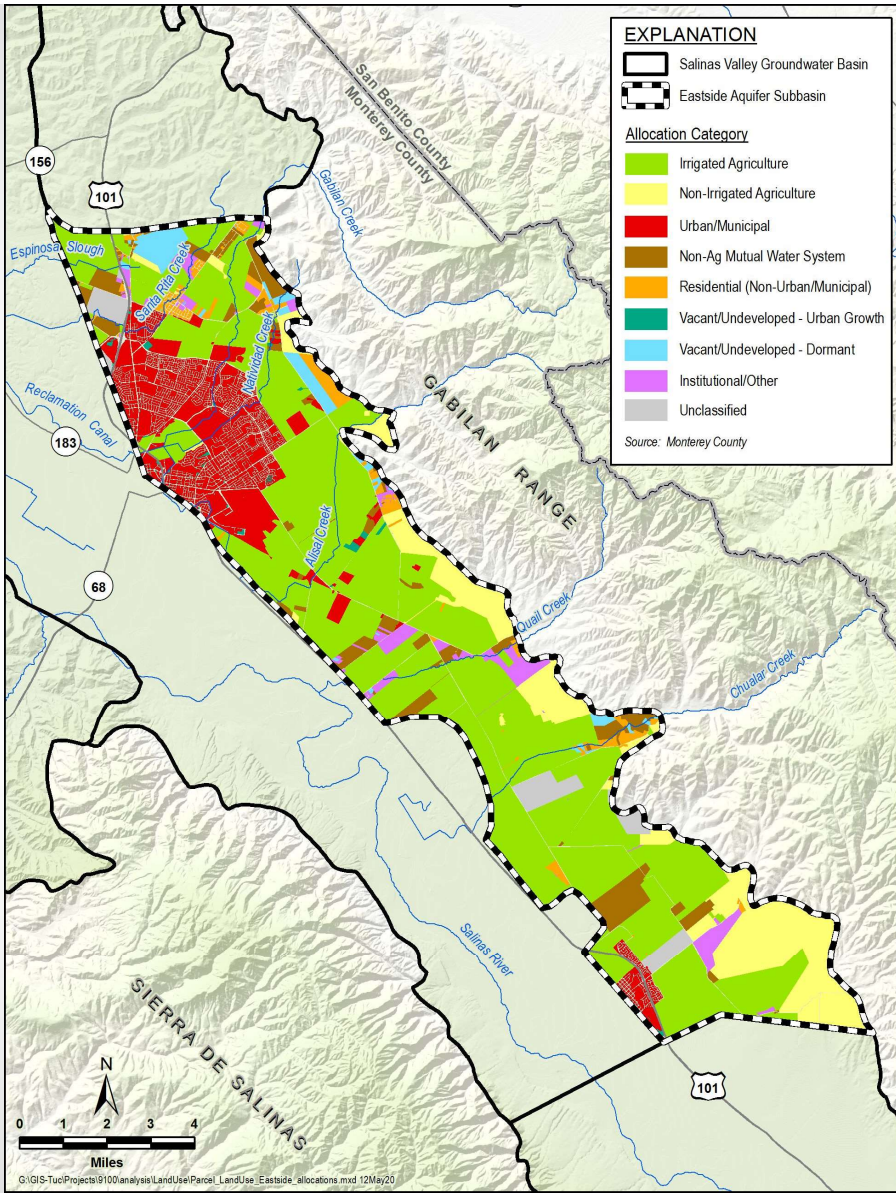
Eastside Land Use



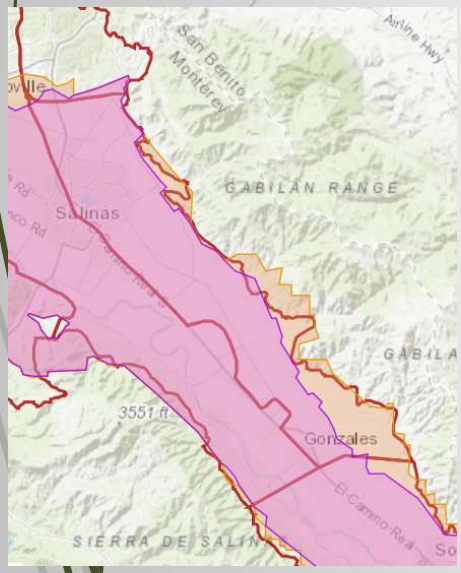


Eastside Land Use

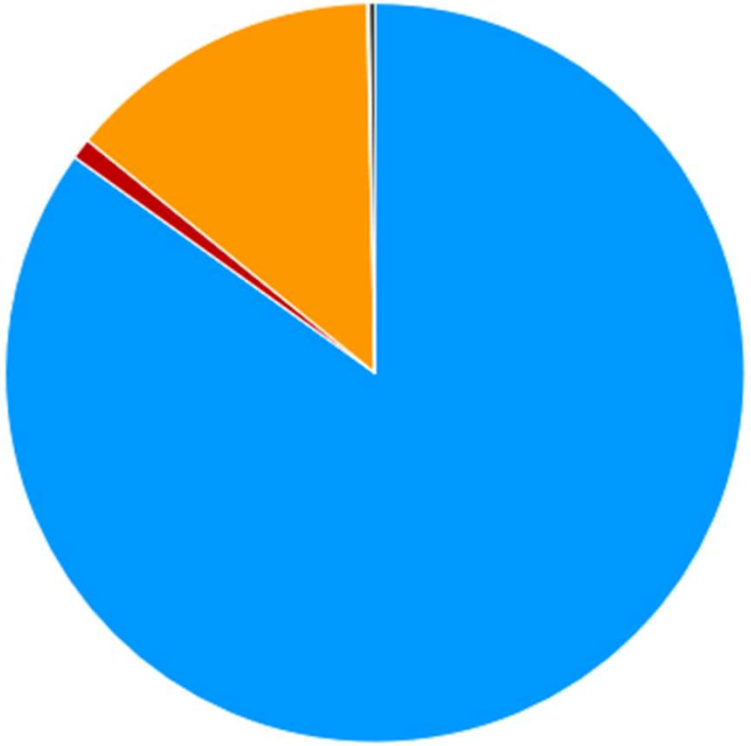
Eastside		
Irrigated Ag	31,045	54%
Dormant (including non-irrigated ag)	8,816	15%
Mutual Water Systems	3,231	6%
Urban/Municipal	7,323	13%
Residential (Non-Urban/Municipal)	1,406	2%
Vacant/Undeveloped - Urban Growth	181	0%
Institutional/Other	1,597	3%
Unclassified	1,454	3%
Not in Parcel Layer	2,414	4%
Total	57,468	100%



Historic Water Use = approximately 97,620 AF/yr (2013 GEMS data in ES MCWRA Zones 2 and 2A)



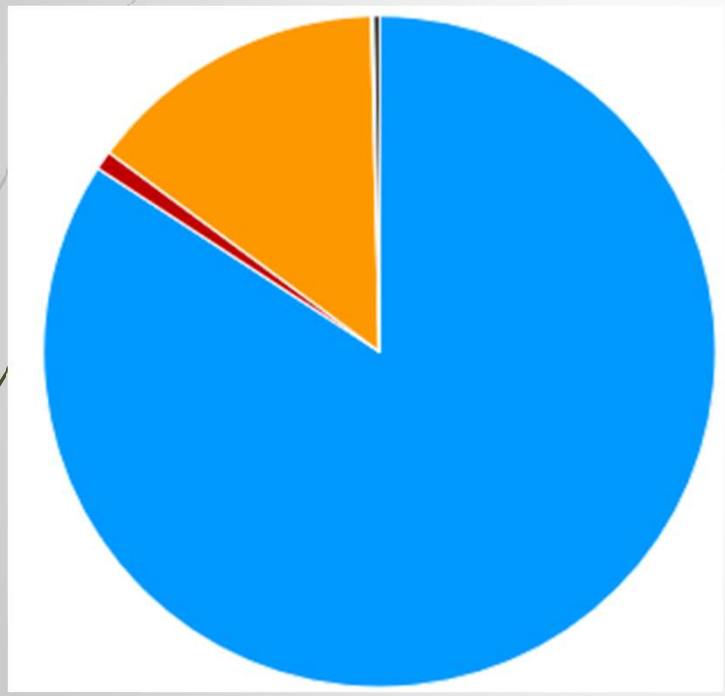
82,900 AF	Overlier: Irrigated Ag
890 AF	Overlier: Mutual Water Systems
13,510 AF	Municipal Water Systems
100 AF	Estimation of de minimis water use
220 AF	Other



Total: 97,620 acre-feet (AF)

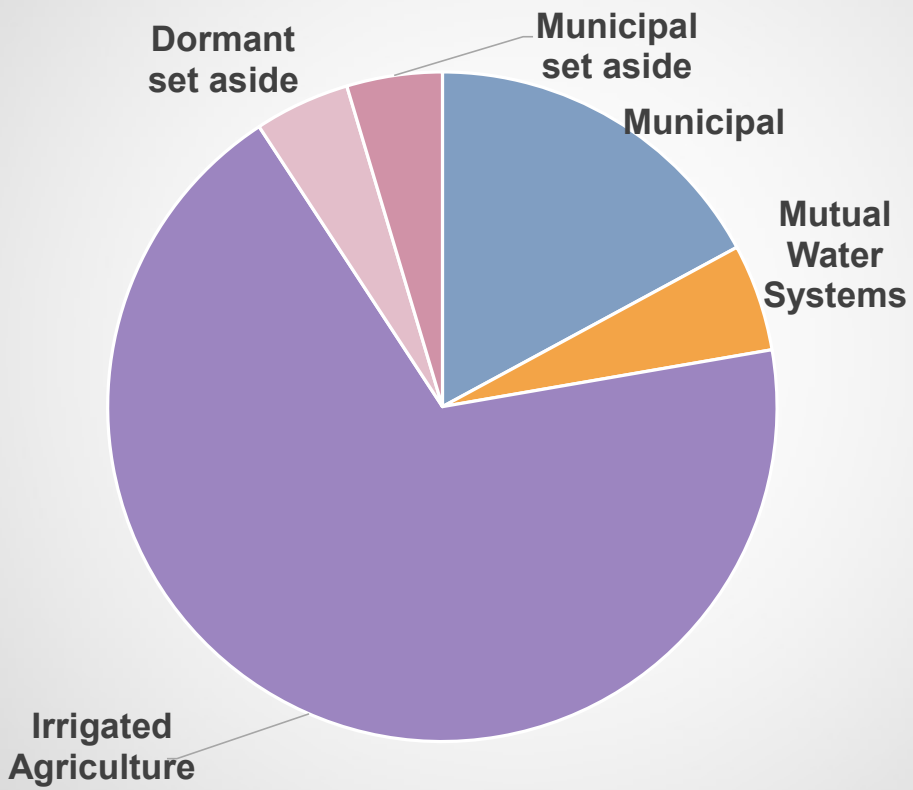
*Mutual water systems, de minimis, other estimates based on 2019 GEMS data

Data – what data do we have/not have?



- Have pumping data for wells with ≥ 3-inch discharge pipe (from GEMS)
- Have pumping data for drinking water systems with ≤ 15 connections or that serve at least 25 people for at least 60 days/year, with data going back to 2013
- Do NOT have pumping data for small state and small local water systems (2-14 connections) or domestic wells
- Do NOT have data outside GEMS area
- Have historical cropping for agriculture

TODAY'S MEETING

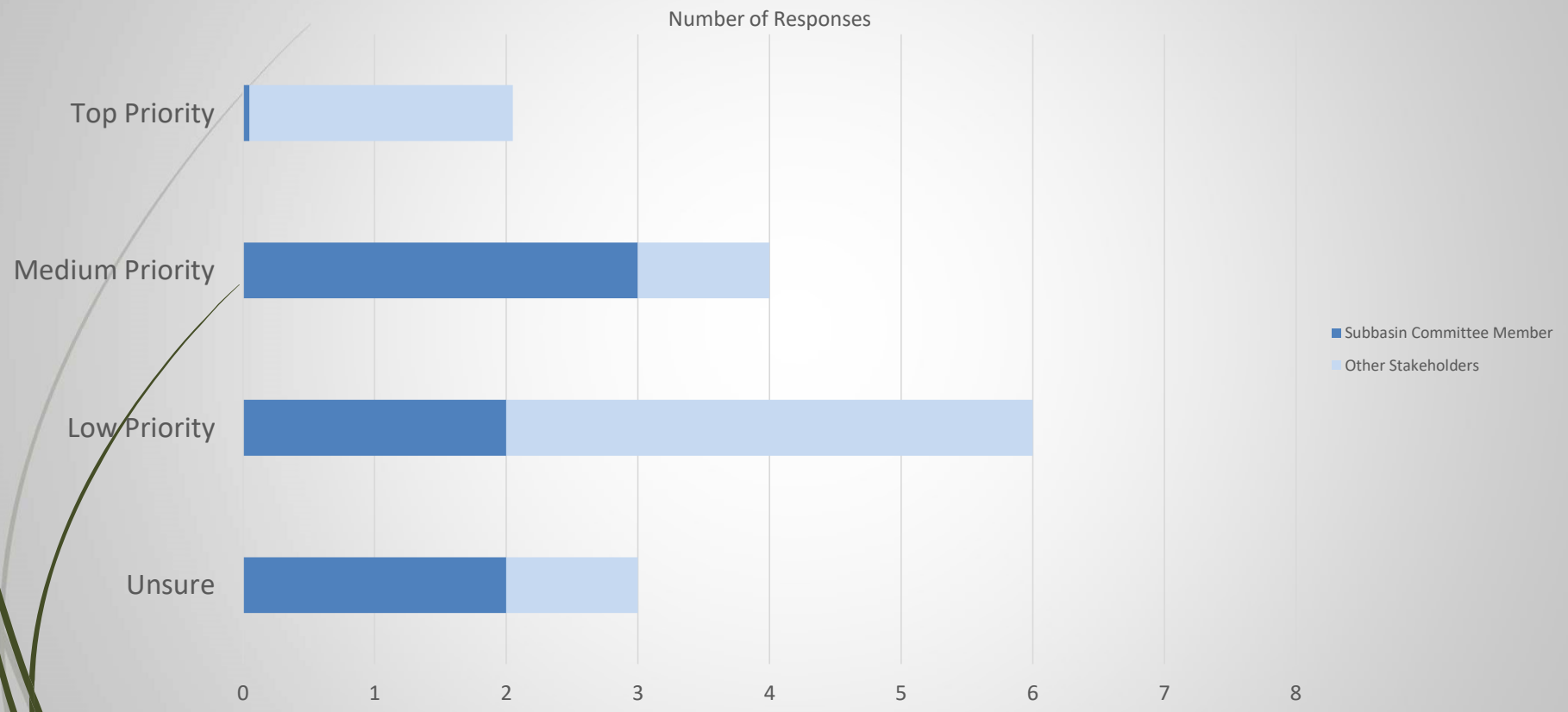


FUTURE MEETING

- Pumping Management
- Project Funding
- Incentivize Recharge

Survey Results

Q1: If allocations are proposed, how should they be prioritized compared to supply-side projects?



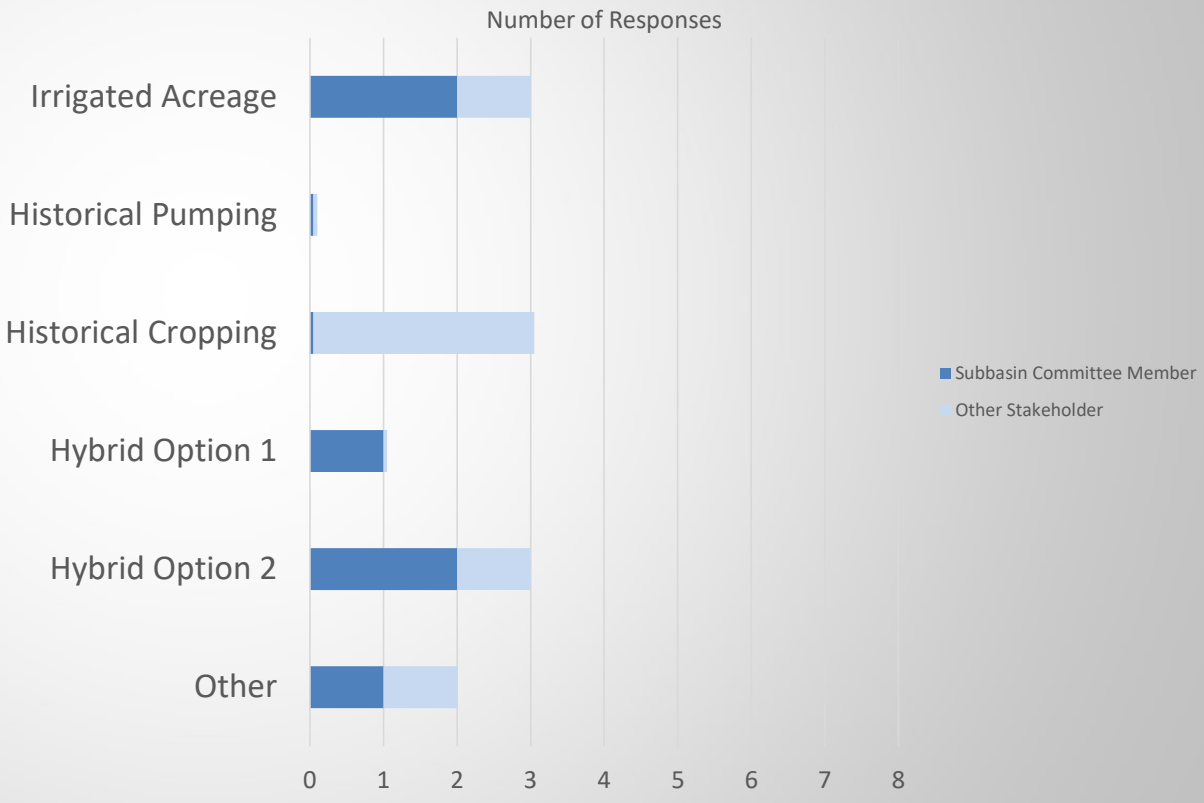
Comments on Q1:

- "How can one answer a prioritization question without having the other variables (projects) adequately determined?
- "It is hard to evaluate proposed allocations outside of a portfolio of projects."
- "Allocation is the stick we must use if we do not take advantage of the carrots (recharge)."

Options for the Pumping Allocation Approach:

- At the Workshop, Valerie Kincaid gave four examples:
  1. **Net Acreage -** Divide sustainable yield by the total acres in the subbasin
  2. **Irrigated Acreage -** Divide sustainable yield by the irrigated acres in the subbasin
  3. **Historic Pumping -** Divide sustainable yield by historic pumping ratios
  4. **Hybrid**, such as:
     - Allocation based on irrigated acreage, with a set aside for dormant land uses and a pre-set for historic municipal use
     - Half the allocation based on historic pumping and the remaining half is based on total acreage, with a market that allows non-irrigated acres to market allocation

Which allocation option is best for the subbasin?



Hybrid Option 1:
50/50 historical pumping
and total acreage

Hybrid Option 2:
Irrigated acreage
with setaside for dormant land uses
and a pre-set for historical municipal uses

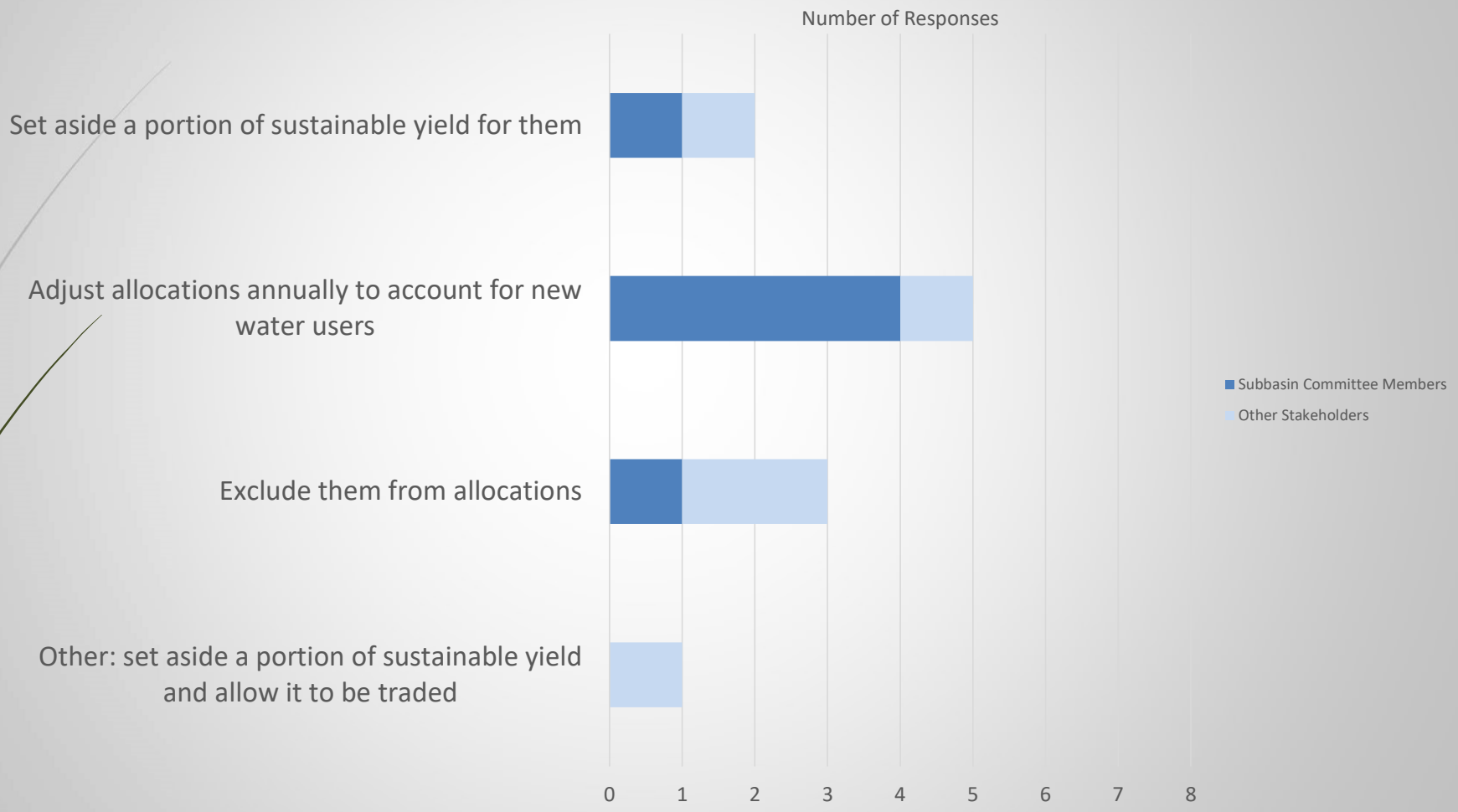
Other allocation options in response to Q2:

- "Hybrid that utilized irrigated acreage, as well as historic pumping...but also considers future land use/growth."
- "Depends. Who got least benefit for most cost in taxes for zone 2c, 2x, a, b"
- Irrigated acreage with "allocation credits/bonuses for those that support infiltration projects on their property"
- Irrigated acreage, but "would need to revisit every X number of years in order to factor in any changes to acreage and/or use patterns."

Q3. Explain your response to the previous question

- Irrigated acreage is the best way to incentivize landowners to participate in other programs to increase supply.
- Irrigated acreage is best because historical cropping or pumping can change, and net acreage might include unirrigated land.
- Irrigated acreage is fairest because it rewards growers who have water-efficient crops and irrigation techniques.
- Historical cropping takes crop type into account, which is good because different crops have different water needs.
- We need to know total volume extracted by each well, and each well should be categorized by its usage and depth.

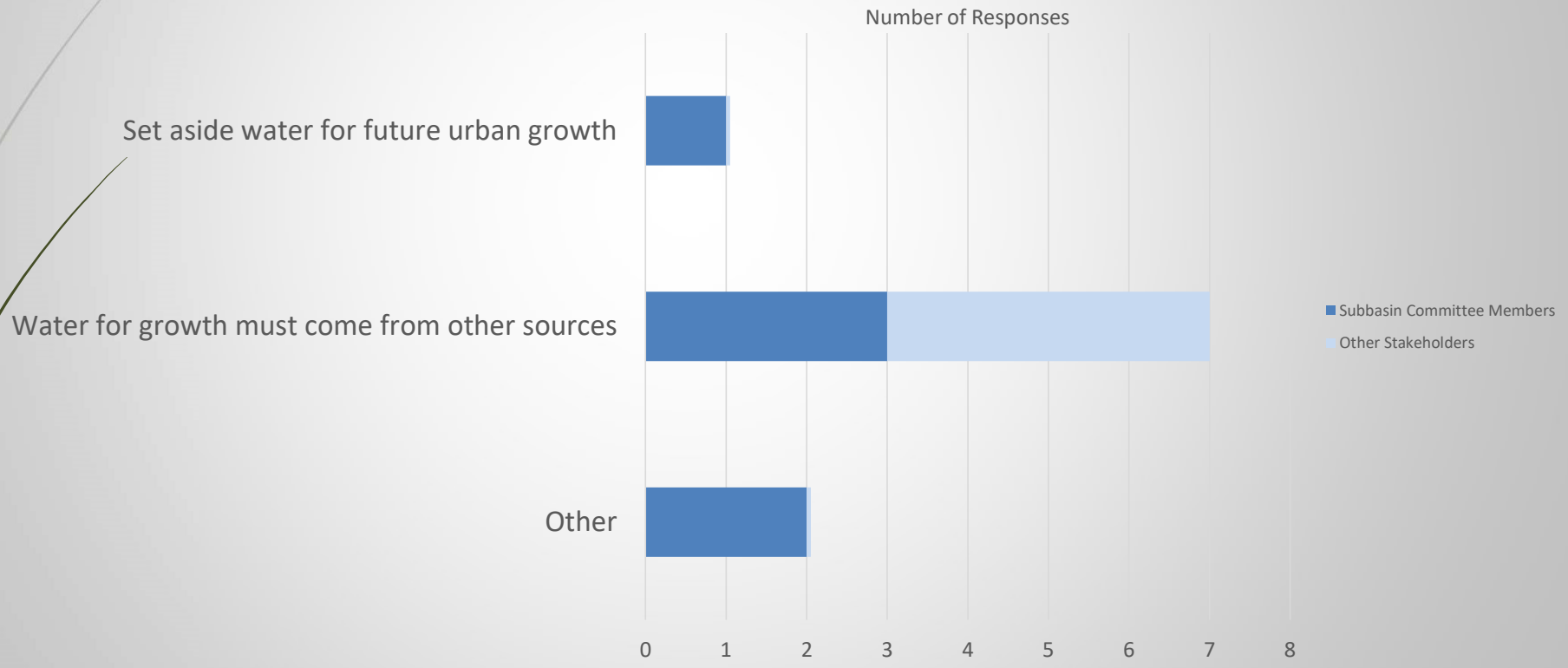
Q4. How should dormant overliers be treated?



Comments on Q4:

- "Set allocations by wells that dormant land."
- There could be a "fee for apportionment to support conservation and recharge projects."
- There "needs to be carefully delineated protocol for adding new irrigated acreage."
- Identify land that is currently unirrigated and keep it fallow instead of forcing irrigated land to become fallow

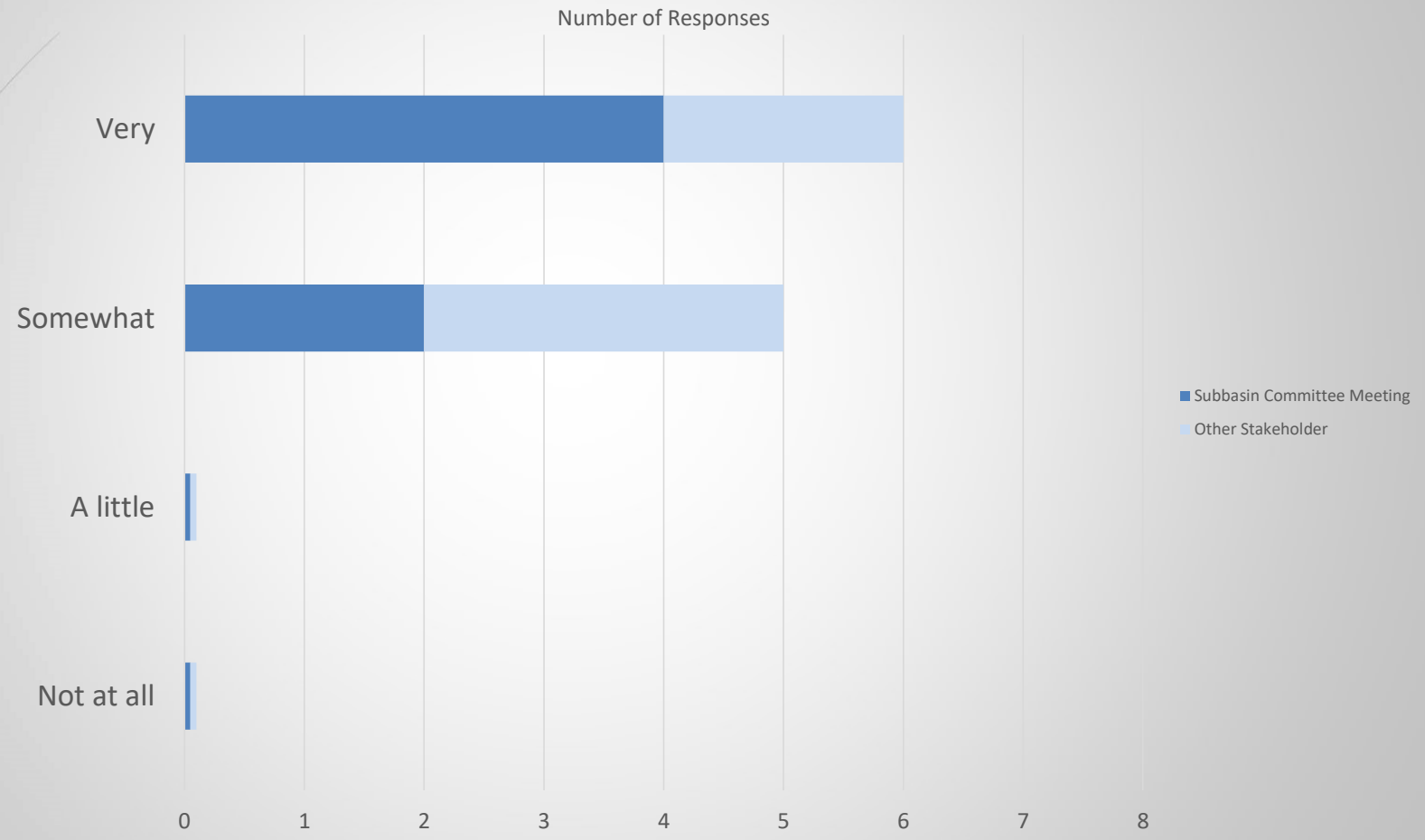
Q5. How should urban growth be treated?



Comments on Q5:

- Other: Increment municipal use monthly, quarterly, semiannually, or annually
- Other: Continue to seek out new water sources so that urban allocations can be increased over time
- Developers could purchase water from farmers, but at a higher rate to make up for the impervious surfaces that typically accompany new development.
- If developers are unable to find new water sources, then they should be limited to whatever the previous allotment was for the land they are developing.

Q6. How flexible should allocations be?



Comments on Q6:

- "The better the water data, the better the allocations can be implemented"
- "Flexibility that can support recharge options and be verified is a valuable strategy."
- "If an irrigated acre does not use all of its allotment then that allotment should be available for others to use."
- There should be a lot of flexibility, "but only from within the same sub-basin, not across sub-basin boundaries."

A few key points/examples on pumping allocations

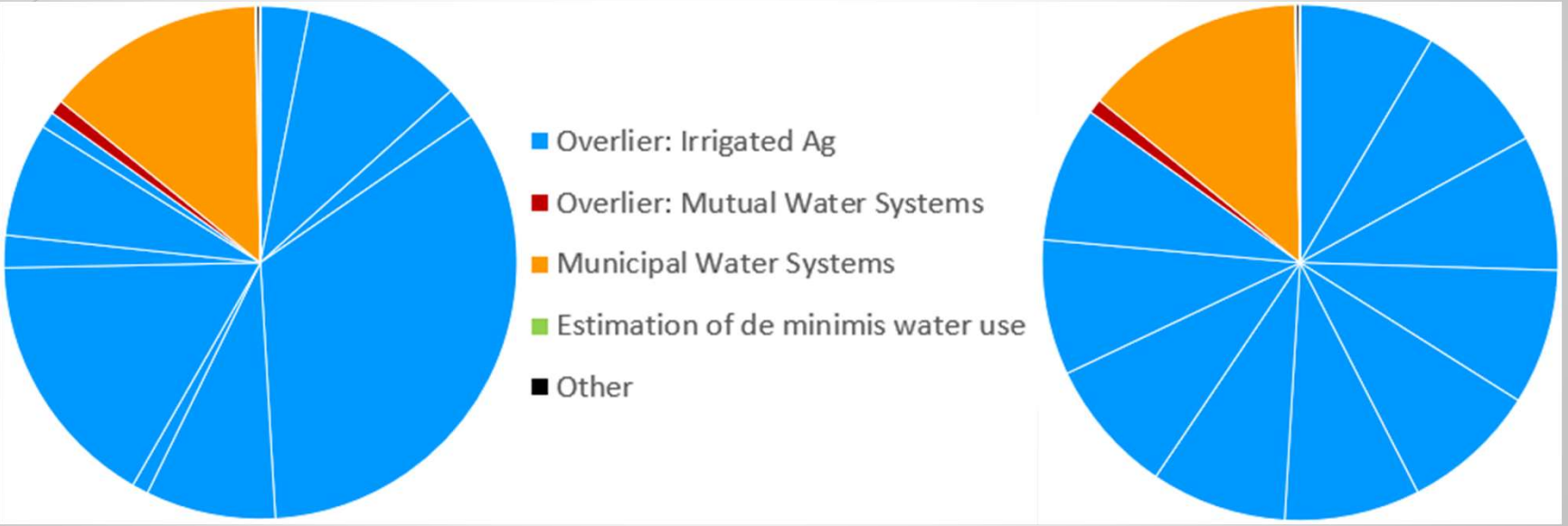
- The following slides are examples and intended to help stakeholders understand the concepts
- They are based on data, but data would be refined if/when allocations are developed

If pumping needs to be reduced to meet the sustainable yield

The second pie chart adjusts the allocations down to a smaller projected sustainable yield.

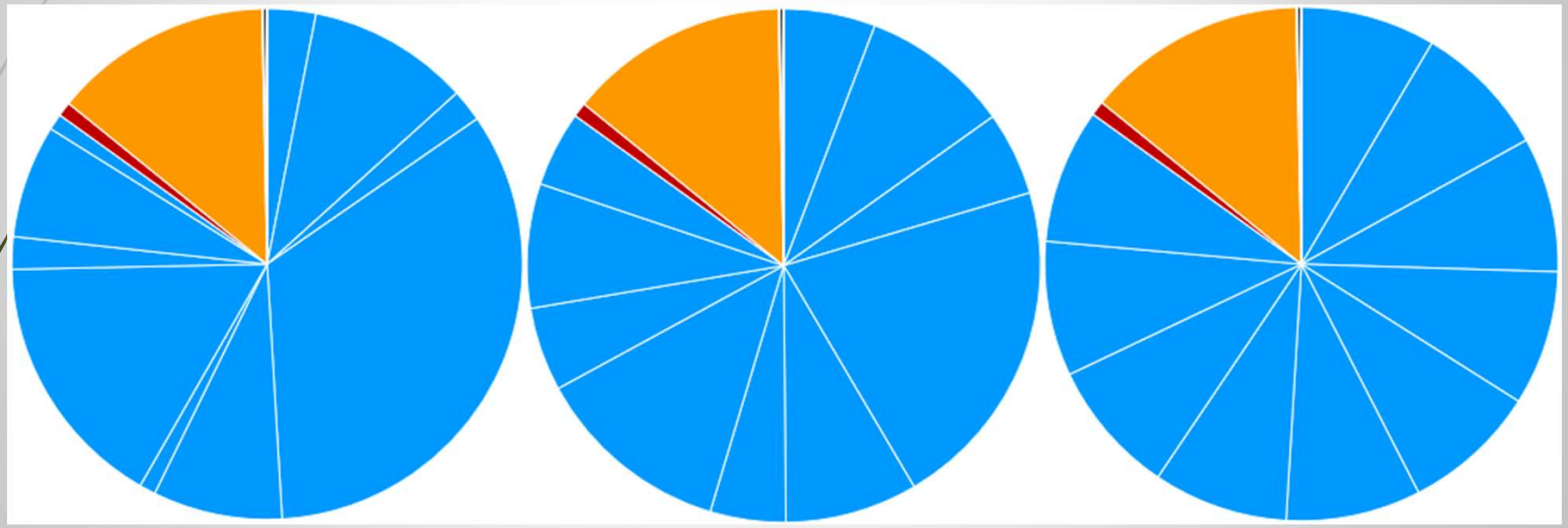
Historic Pumping vs Irrigated Acreage Approach

Within the irrigated agriculture category,
the pumping per acre differs for these two approaches.



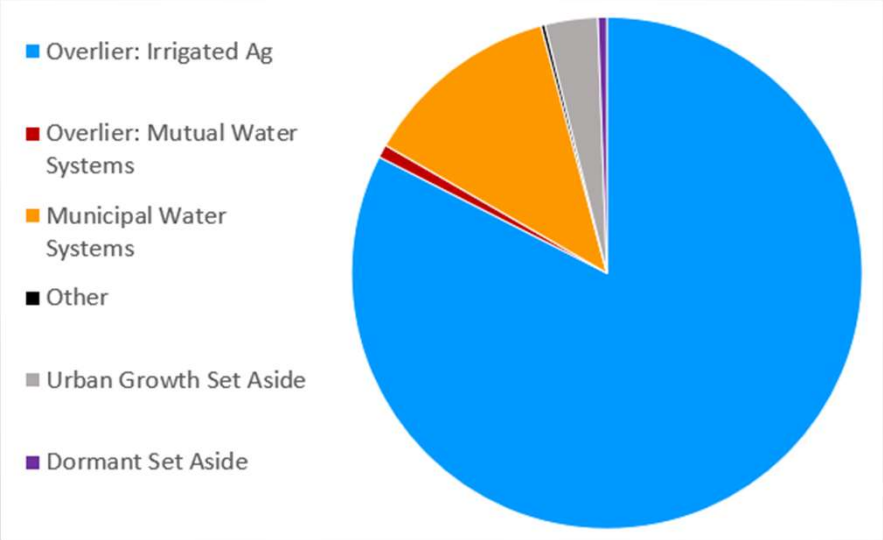
Hybrid Approach: 50/50 Historic Pumping and Irrigated Acreage

The middle pie chart represents a 50/50 compromise between historic pumping (left) and irrigated acreage (right).



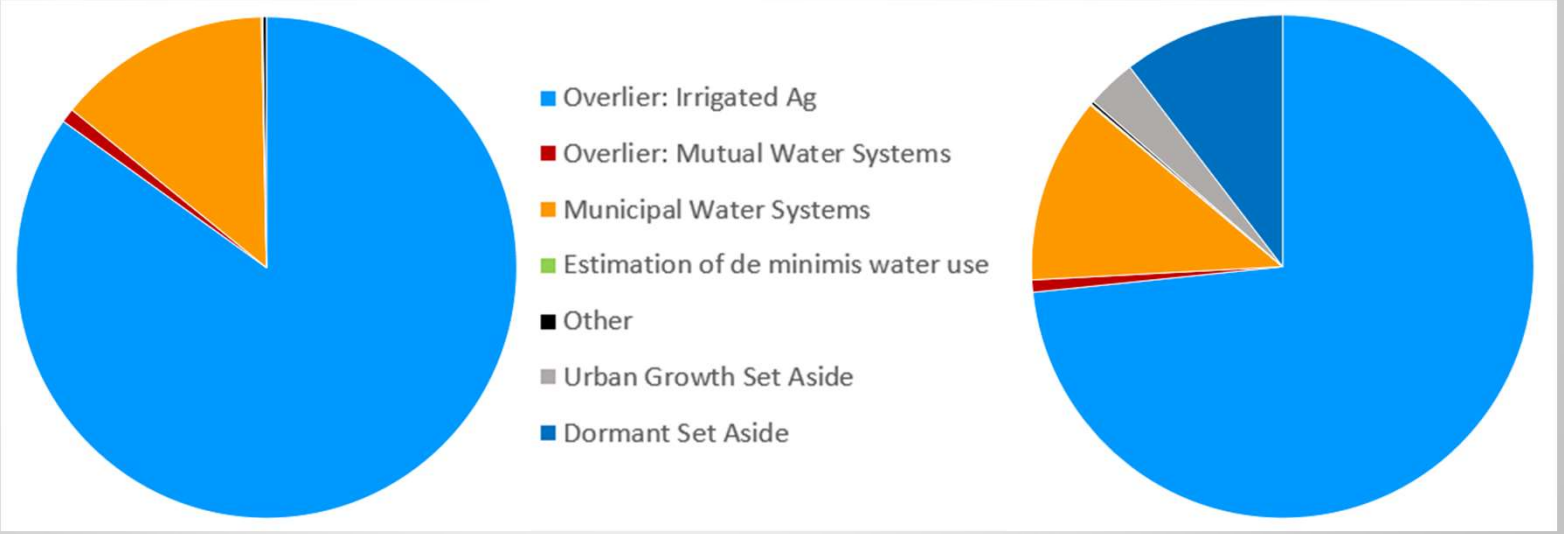
Options for how **municipal growth** can be addressed

- No allocation for municipal growth – provide or require alternative water source for municipal growth (Valerie Kincaid cautioned against this)
- Set aside for municipal growth
  - At the same or different proportions? What portion of the pie?
- Allocations adjusted as growth occurs



Three options for how **dormant land** can be addressed

- No allocation for dormant land (Valeria Kincaid cautioned against this)
- Set aside for dormant land use
  - At the same or different proportions? What portion of the pie?
- Allocations adjusted as it comes into production



Discussion on Prioritization of Pumping Controls

- Think about in two parts:
  - Pumping allocation structure
  - Pumping controls
- Should pumping allocations be included in the GSP?
- Should a pumping allocation structure be established for use now or in the future?
- Should pumping controls be enacted immediately? If not, when? Or what should trigger them?

Discussion on Allocation Structure

- Should the **allocation structure** be based on historic pumping, net acreage, or irrigated acreage?
- Should **dormant land** have a set-aside or will irrigated acres be adjusted as new land comes into production?
- How should **urban growth** be treated – set aside or require relying on new water sources?

Next Steps

- Get water budget results with historical, current, and future sustainable yield
- Draft pumping allocation framework for GSP (if agreed to)
- Review water budget and all projects and management actions together
- Discuss if or how allocations should be used in projects and actions or financing options

Questions