Indio Water Authority

Water Rate Structure Advisory Committee

Meeting 2

May 20

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Today's Agenda

- Introductions
- Regional rate comparison
- Recent work
- Rate options
- Water budget rate details
- Review upcoming meeting topics
- Questions
- Adjourn

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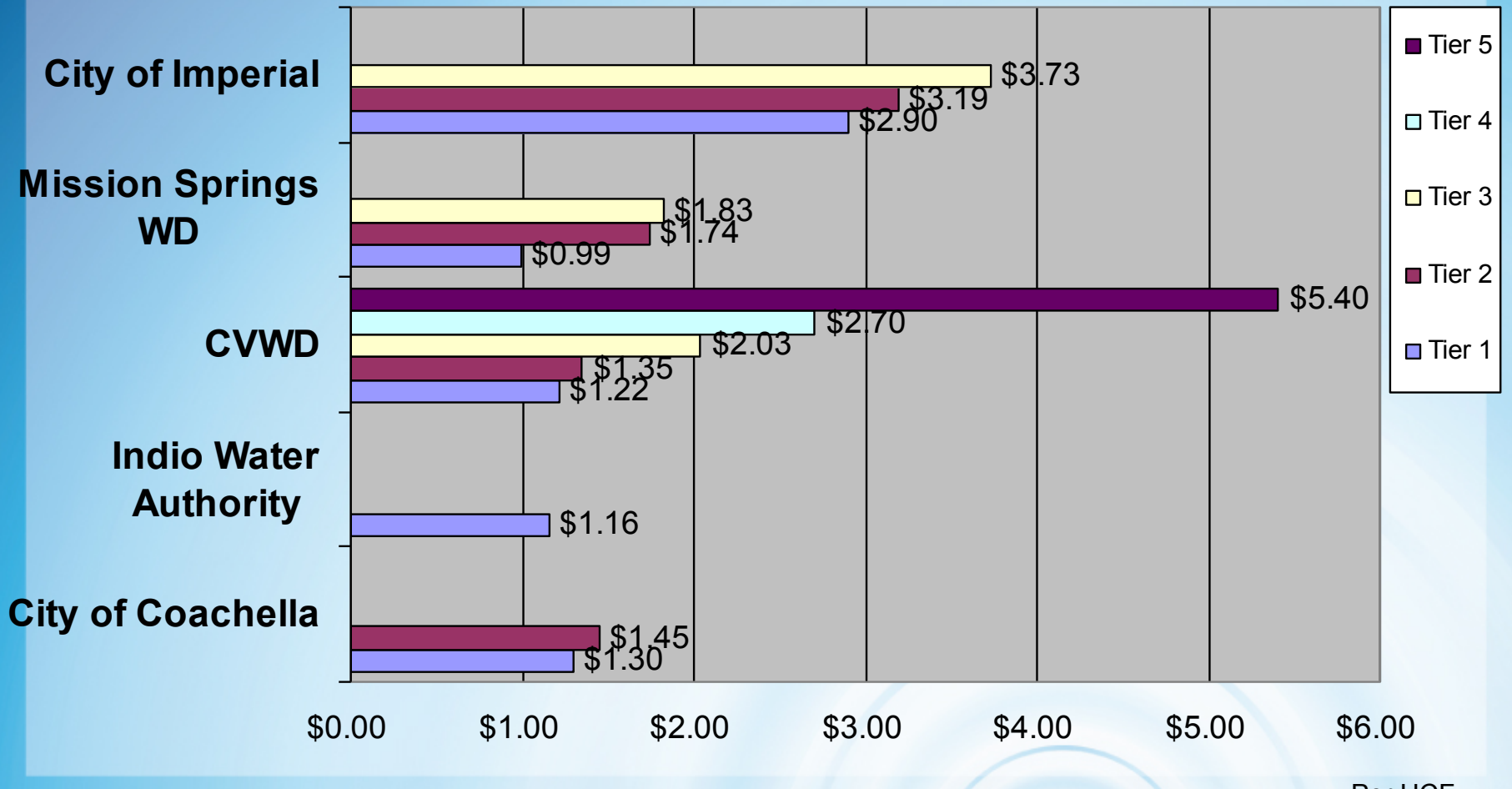
Rate Comparison



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Billing Unit

Current flat rate:
$1.16

Local Average Across Tiers:
about $2.00

1 HCF = 1 Billing Unit = 748 Gallons, Average usage 20-30 units/month




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Long Range Financial Plan

- Completed in 2012
  - Results presented to Board
- Current effort
  - Report and forecast model submitted
  - Update operating budget
  - Examine budget-tiered rate structure

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Rate Study

- Rate study analyzes different options for rates that fit both agency and customer needs.

Current efforts *(in coordination with WRSAC)*

- Confirm and complete design details
- Develop roll-out schedule
- Finalize model
- Update billing data
- Write final report
- Presentations as needed

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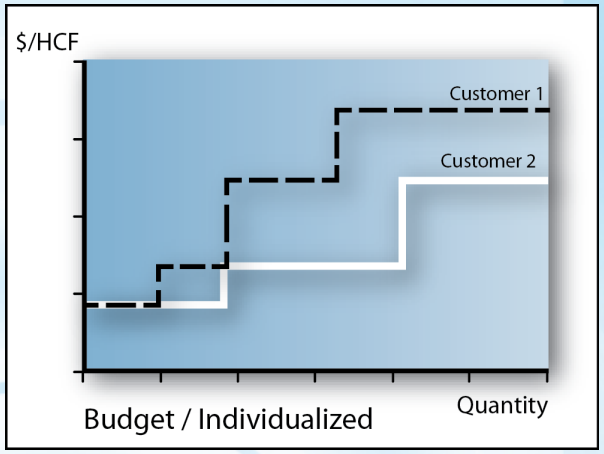
Water Budget Rate Structure

- A ***type*** of tiered rate structure
- Blocks are individualized to each account based on need

Advantages

- Fair for customers
- Individualized customer allocations
- Affordable for basic needs
- Reduces water waste
- Creates revenue stability
- Meets mandated conservation levels



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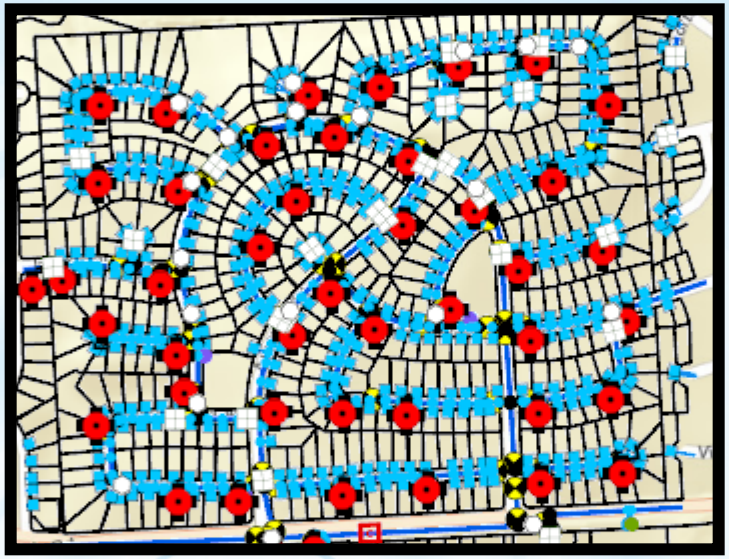
Water Budget Rate Structure

Disadvantages

- Higher administrative cost to start
- Implementation can be time consuming



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Water Budget Successes

- Developed in the early 1990's by Irvine Ranch Water District
  - 61% reduction in landscape water use
  - District growth paralleled by increasing success in conservation
- Budget-based rates now regarded as best practice
- Used locally with success in saving water

WATER DISTRICT

DESERT WATER

MSWD
Mission Springs Water District

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Learning from Others

- IWA was not the first on the bandwagon
- Using information from other local districts
- Current designs are very sophisticated
- Now easier to determine individualized budgets
- Customers better understand that water budgets provide needed amounts for indoor and outdoor use
- Streamlining new structure with needed rate increases

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Water Allocations can be based on:

Indoor water needs:

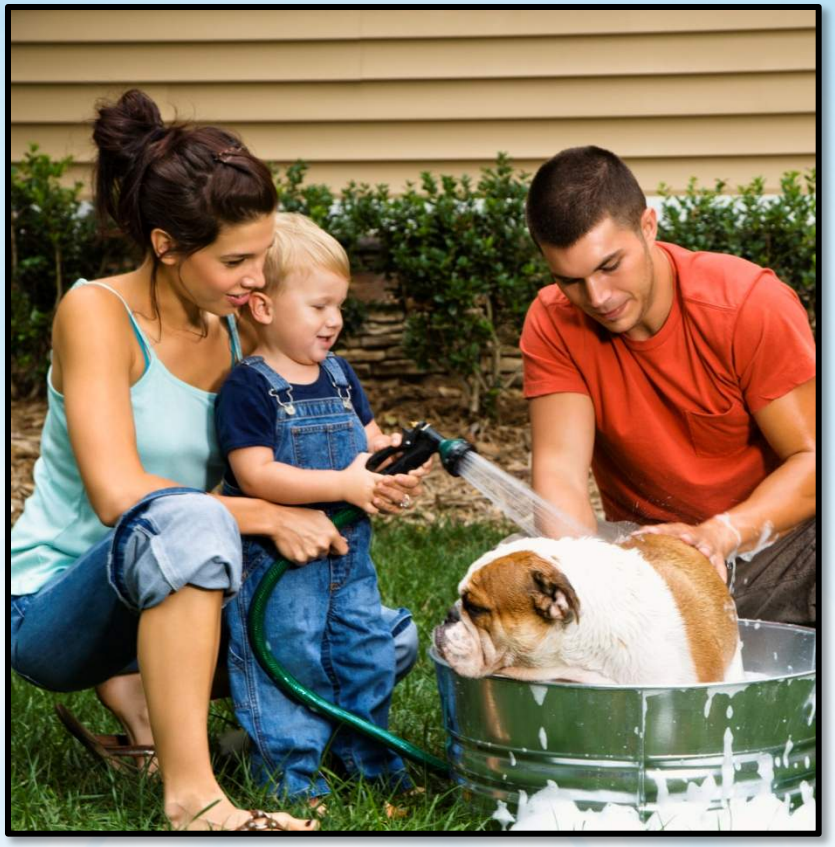
- The number of residents
- Average winter consumption

Outdoor water needs:

- Landscaped Area
- Evapotranspiration (ET)
- Plant Factor
- Irrigation efficiency

Average Historical Use:

- Individual usage
- Similar account usage



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Tier Design

1. ***Width*** *of each tier = quantity in each block (HCF)*
2. ***Number*** *of tiers*
3. ***Height*** *of each tier = rate ($/HCF)*

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Width, Number, Height

1. ***Width*** *of each tier = amount of HCF in each tier, which is based on percentages of water needed*
   - If needed is 10 HCF (7,480 gallons) = Tier 1
   - Tier 2 = 150% of Tier 1 or 15 HCF (11,220 gallons)
2. ***Number*** *– Allows IWA to give some leniency on slightly higher use, but be more strict with extreme water waste*
   - Don't charge user at 150% level same as 400% level
3. ***Height*** *of each tier = Price per billing unit (HCF=748 gallons) helps ensure that customers will respond to water waste and be incentivized to conserve*
   - If Tier 1 is only $0.05 less than Tier 4, system won't work

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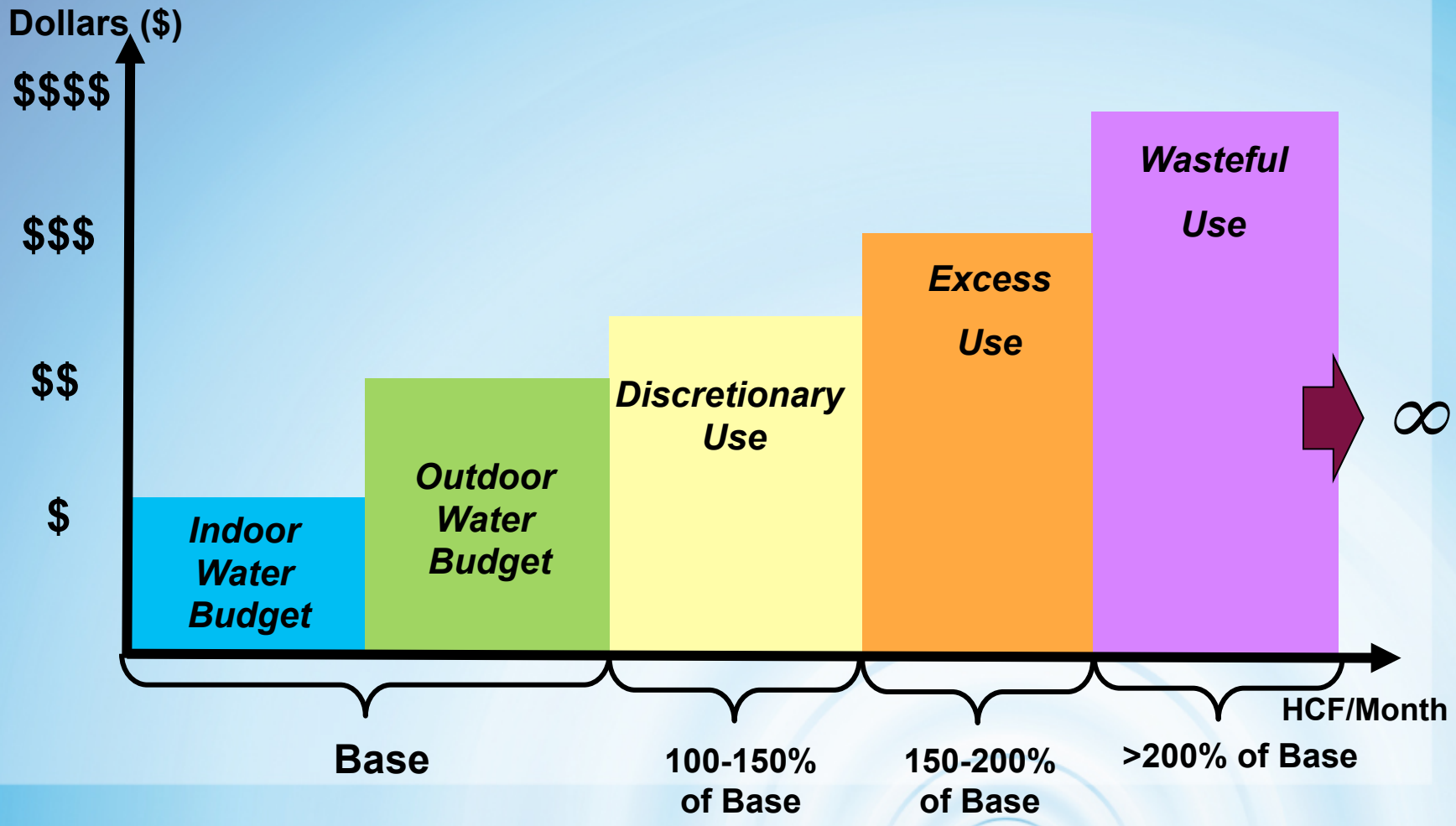
Residential Tier Width Relative to "Base Allocation"



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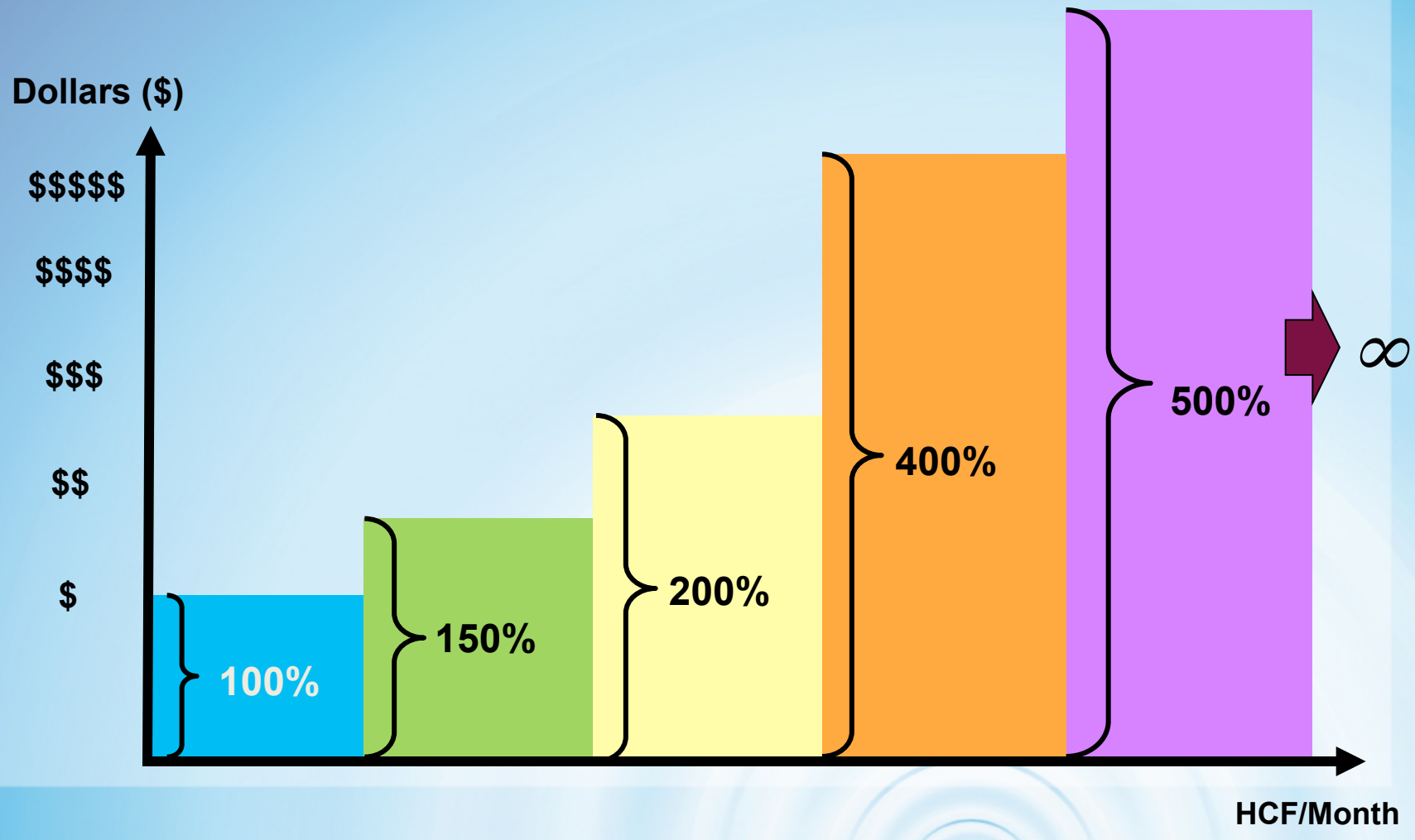
Residential Tier Height



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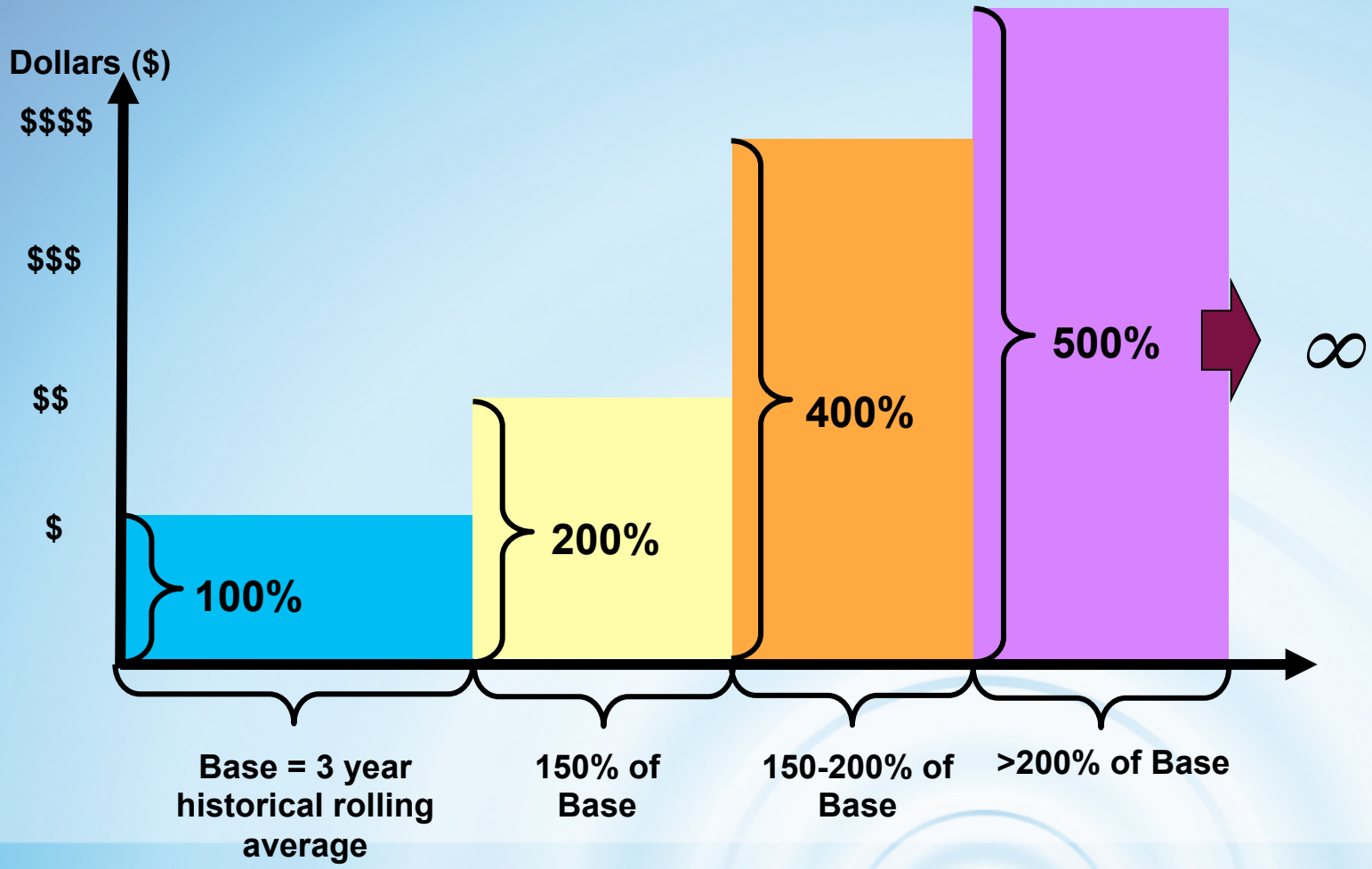
Commercial Tier Width and Height



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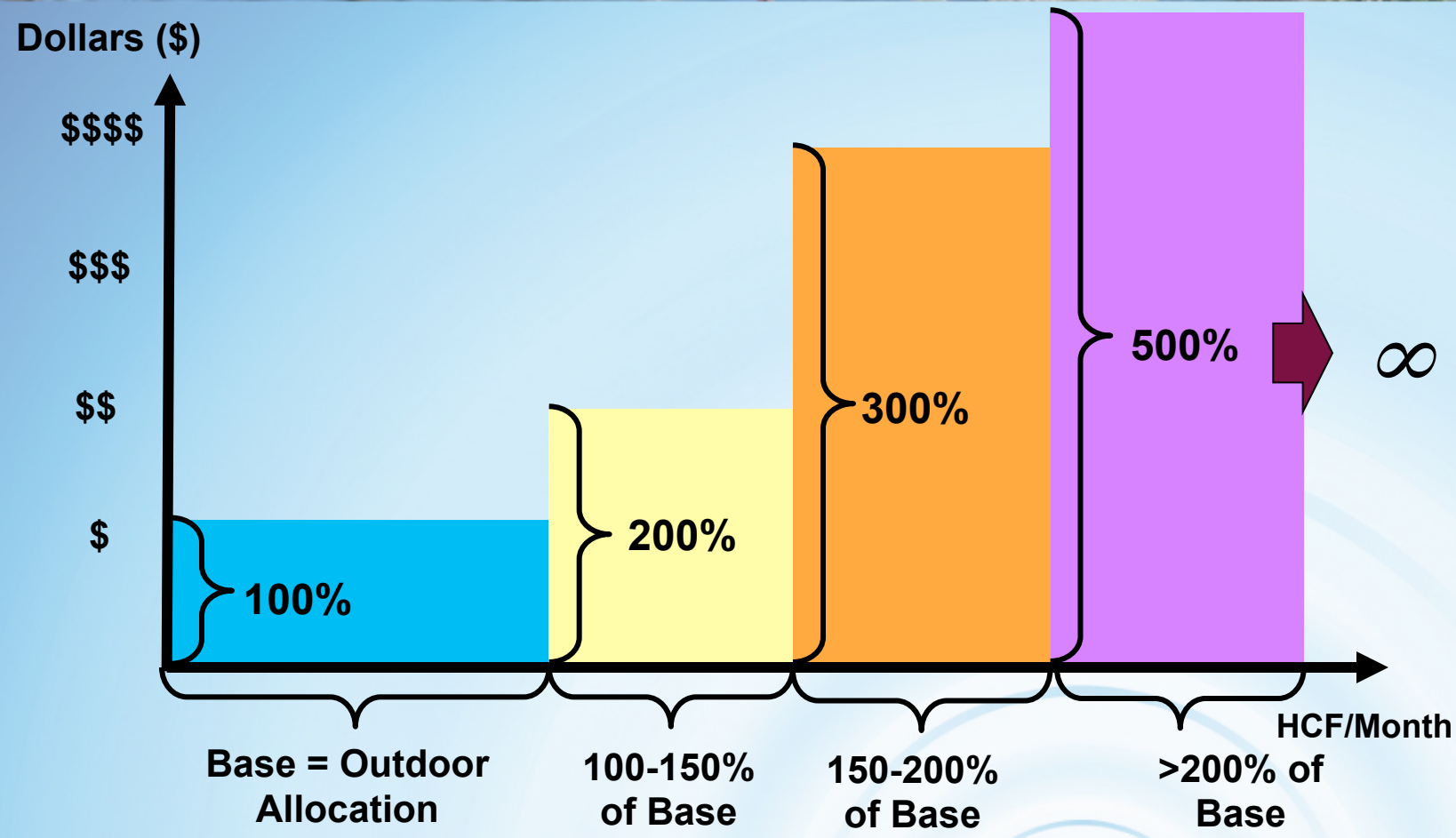
Municipal Tier Width



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Indoor Allocation Data (Residential & Hotels)

- Household size
  - Give all similar accounts the same default value
- Gallons per day allocation
  - Range from 50 to 80 gallons per day (industry standard is 60)

IWA Design

Model Class	Household Size	Gallons Per Day (GPCD used)
Single-family Residential	4	62.5
Senior Residential	1.6	62.5
Multi-family Residential	1.6	62.5
Hotel/Motel	1.6	62.5

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Determining Lot Size

- Individual parcel data from County records
- Directly measure
  - GIS
  - Aerial photography

GOAL:

Give customers the right amount needed to water the lawn, if efficient

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Landscaped Area

- Landscaped area is calculated as a percentage of the lot size based on average value of a representative sample.
- Samples were measured in the field or via GIS

IWA Design

Single Family Residential

- *45% of actual lot size*
- *No minimum area*
- *6,000 ft^2 cap*

Multifamily, Hotels, Irrigation and Special Accounts

- *Actual size based on GIS*

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Evapotranspiration (ET) Policy Options

1. **Do not use ET** (Block width does not vary over time)
   - **Pros** - Easy to implement
   - **Cons** – Dilutes message, equity concerns & increase revenue instability
2. **Historical ET**
   - **Pros** - Easy to implement & addresses some revenue stability
   - **Cons** – Not accurate & some equity concerns
3. **Real-time ET data**
   - **Pros** – Accurate, high quality data, & addresses revenue stability
   - **Cons** – Requires additional data management

IWA Design

Real-time ET data *– Taken from CIMIS station number 200 located in Indio.*

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Plant Factor and Irrigation Efficiency

- *Plant Factor (PF)*
  - *Turf grasses range from 0.6 to 0.8*
  - *State Model Water Efficient Landscape*
- *Irrigation Efficiency (IE)*
  - *Less efficiency = more water allocation*
  - *CA DWR estimates average of 0.7*
  - *State Model recommends 0.7*
  - ***IWA is rounding up for customer benefit***

IWA Design
Plant Factor = 0.7

Irrigation Efficiency = 0.8

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Summary of Outdoor Water Allocation

Model Class	Landscaped Area (LA)	Evapo-transpiration (ET)	Plant Factor (PF)	Irrigation Efficiency (IE)
Single-family Residential	45% of Parcel	Weather data	0.70	0.80
Senior Community Residential	45% of Parcel	Weather data	0.70	0.80
Multi-family Residential	Actual measured area*	Weather data	0.70	0.80
Municipal	Actual measured area*	Weather data	0.70	0.80

** As recorded in GIS database or by site measurement*

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Upcoming Committee Meetings

June 10th at 9:00 AM

Variances

June 24th at 9:00 AM

Outreach

QUESTIONS?