This presentation premiered at WaterSmart Innovations

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MOVING BEYOND THE REBATE: RETHINKING INCENTIVES FOR MULTI-FAMILY EFFICIENCY

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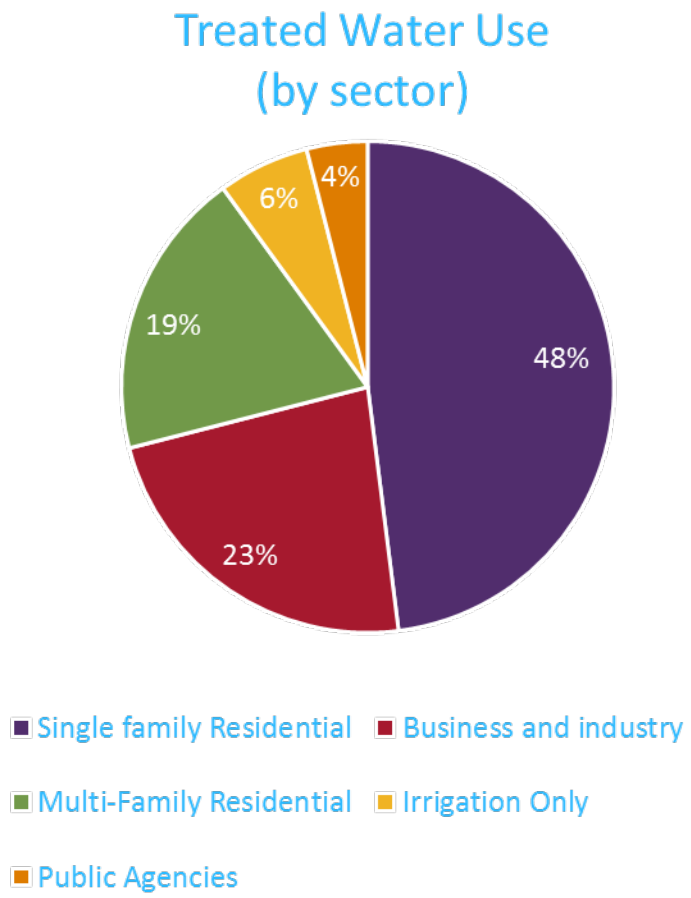
DENVER WATER

Denver Water at a Glance

- We have 1.4 million people in our service area
- MFR = 19% of our water use
- Irrigation season from May to September
- Consider MFR 2 units and above
- We are experiencing an increase of dense development
- Many large MFR properties have multiple taps/ meters



How we Serve Multi-Family Customers

- Provide Rebates
  - Indoor: toilets, coin operated laundry
  - Outdoor: ET controllers, irrigation nozzles
- Audits
- Water budget reports (outdoor)
- Conservation focused messaging and marketing
- Separate low income program

Low Participation in Multi-family Rebates

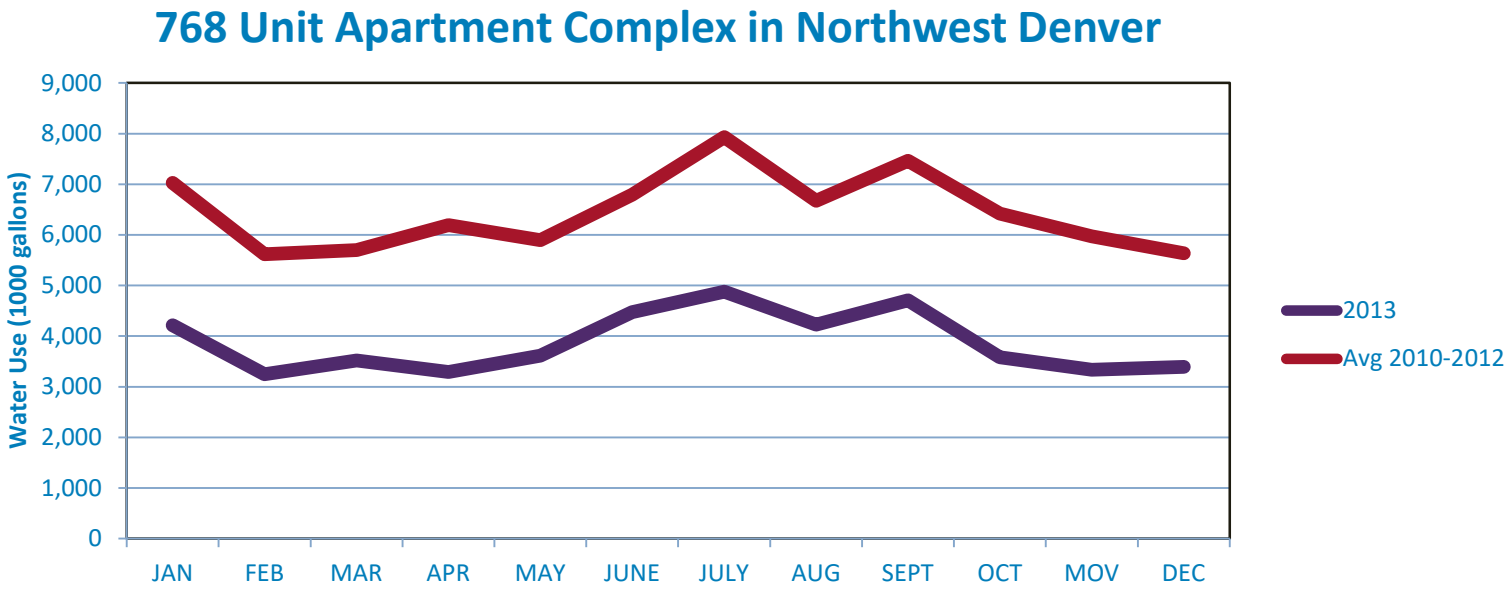
- Low participation compared to single family
  - 1% of customer rebate applications were multi-family.

- Possible reasons:
  - Properties typically only change a toilet when it is broken.
  - Not owner occupied
  - Up front funds lacking for customers
  - Customers not aware of program (bills paid by 3rd party, bill inserts thrown away or not given to decision makers)
  - HOA's

New Approach:
"WaterSense Challenge Program"

- In 2012 Denver Water began to target large multi-family customers with high indoor water use resulting from inefficient plumbing fixtures.
- Contract bids to wholesalers for best price on toilet fixtures
- Denver Water purchases and provides delivery free to qualified customers: WaterSense aerators, showerheads and UHET toilets. Dumpster also provided.
- Win/Win
  - Denver Water reduces overall demand in a cost-effective way. Also, we are engaging a customer type that was not previously engaged.
  - Multi-family customers reduce their water bill

- **6,000 residential units**
- **Customers saved 30 to 55%**
- **Denver Water saved 360 acre feet**



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How Program Works

- **Identify potential customers**
  - Built pre 1994 (internal or from assessor)
  - Internal data for all multi-family customers
  - Number of units (internal or from assessor)
  - 200+ units eligible (rebates available for <200 units)
  - Divide average monthly winter consumption by # units for *consumption per unit*.
  - Contact info (internal or internet search)
  - Get to the decision maker

- **Persuading customers to sign up**
  - Promotional flyer with testimonials
  - Drain line studies
  - User satisfaction reports
  - Demo toilet

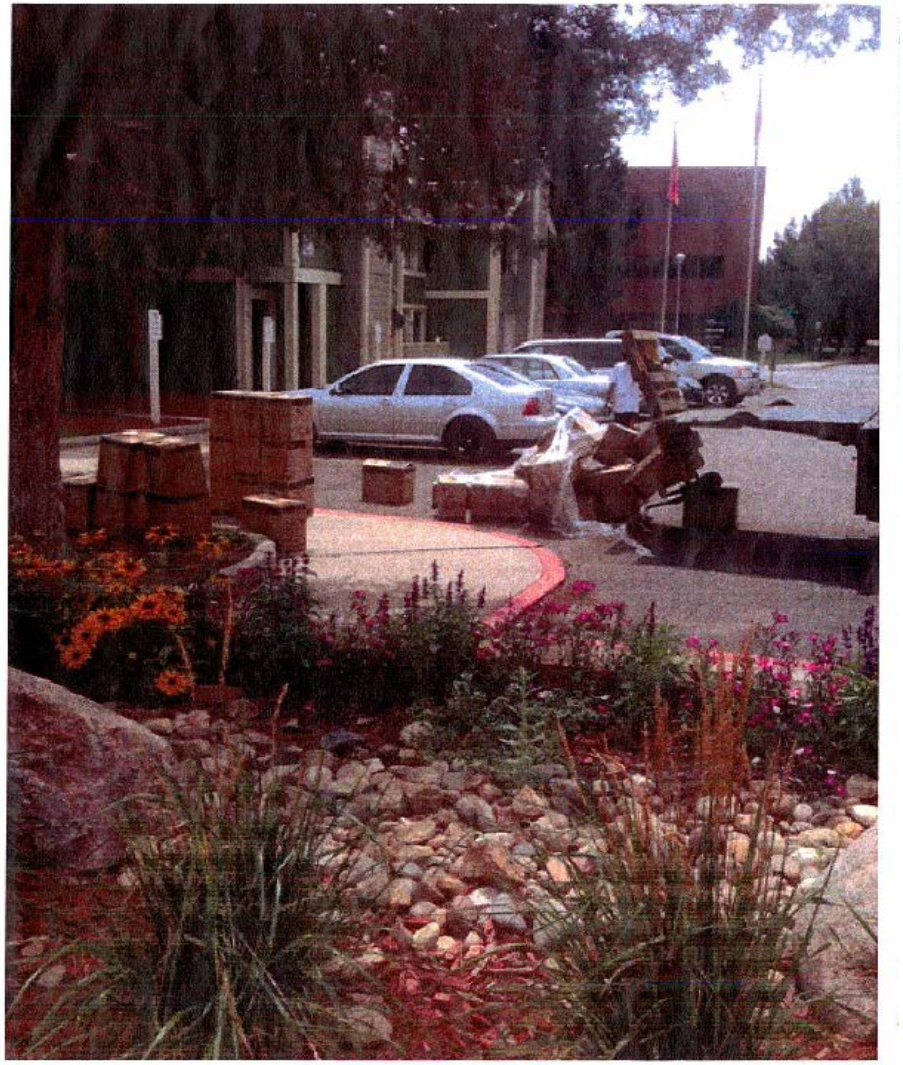
Installation of Fixtures Version 1.0

- Fixtures delivered to customer. Customer either:
  - Hires someone to install
  - Installs themselves
- Denver Water performs random inspection.
- Denver Water pays small amount toward installation expense.

Challenges

- Customer difficulty finding installer or staff time
- Not getting signed packing slip from customer
- Denver Water personnel need to receive product at customer site.
- Deliveries not occurring during 3 hour delivery window

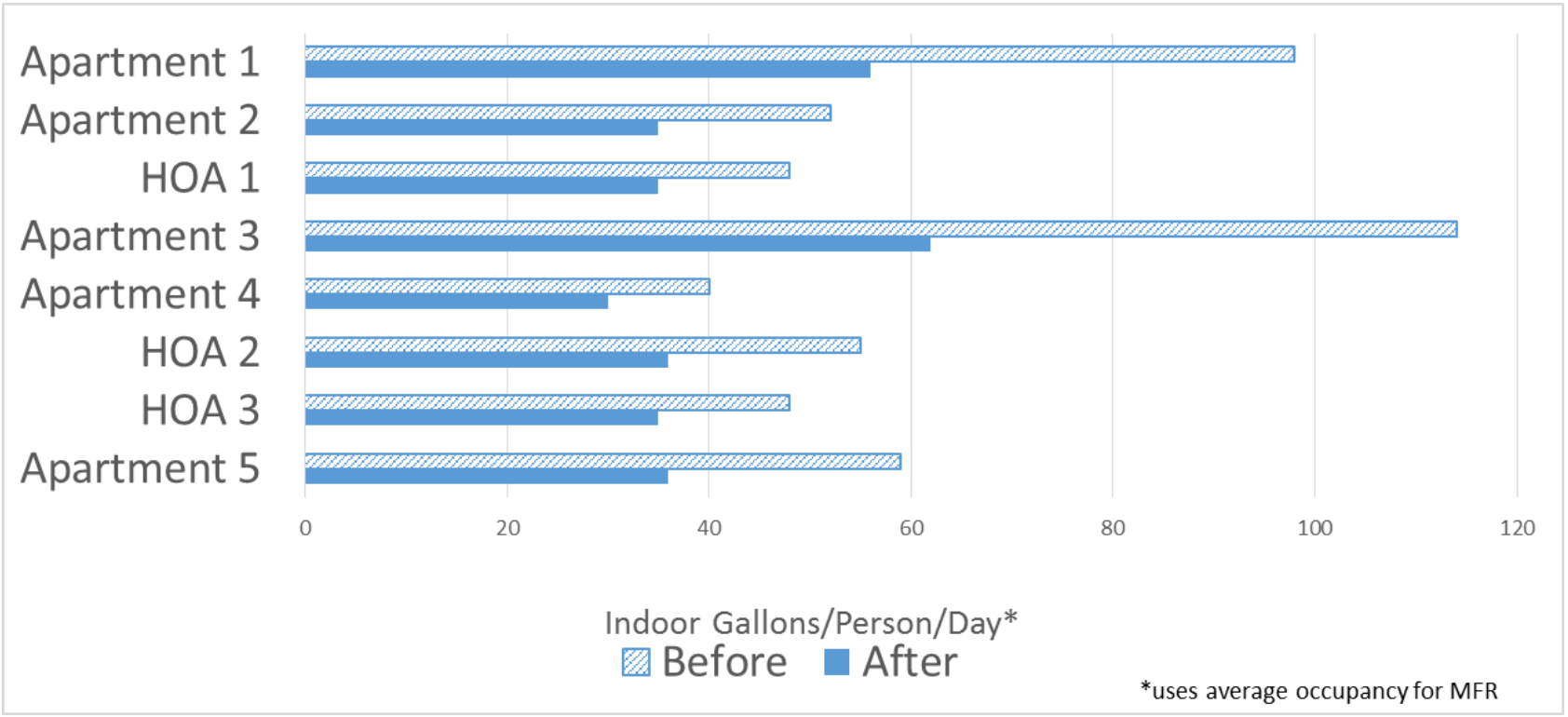
Truck arrives outside delivery window. Customer staff not available to receive product.



Installation of Fixtures Version 2.0 (or how we overcame challenges)

- In 2016, we sent bids for installation of fixtures.
- 3rd party now receives deliveries and installs fixtures.
- Program is easier to sell now to customers.
- Has resulted in consistent, quality installation
- Frees up Denver Water staff
- Although more expensive than version 1.0 it still falls well below our goal of 1 AF of savings per $6,000

Program Success: Water Savings



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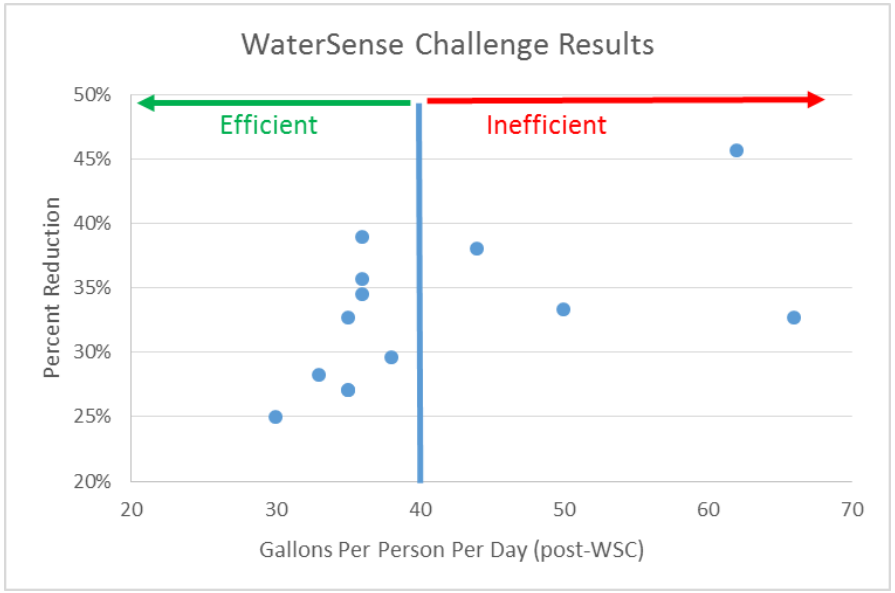
Results and Next Steps: Reductions versus Efficiency



- All the properties had reductions in their use
  - Average 22 gppd efficiency gain
- Possible reasons customers may still look inefficient:
  - Could have higher occupancy
  - Leaks still present
  - Wasteful use/ habits
  - In-unit/building clothes washers

Formula used to calculate Gal per person per day:
GPPD =(Winter Median)/30/((# of units)*(2.2)

2.2 is the average number of occupants in a MFR unit in our service area

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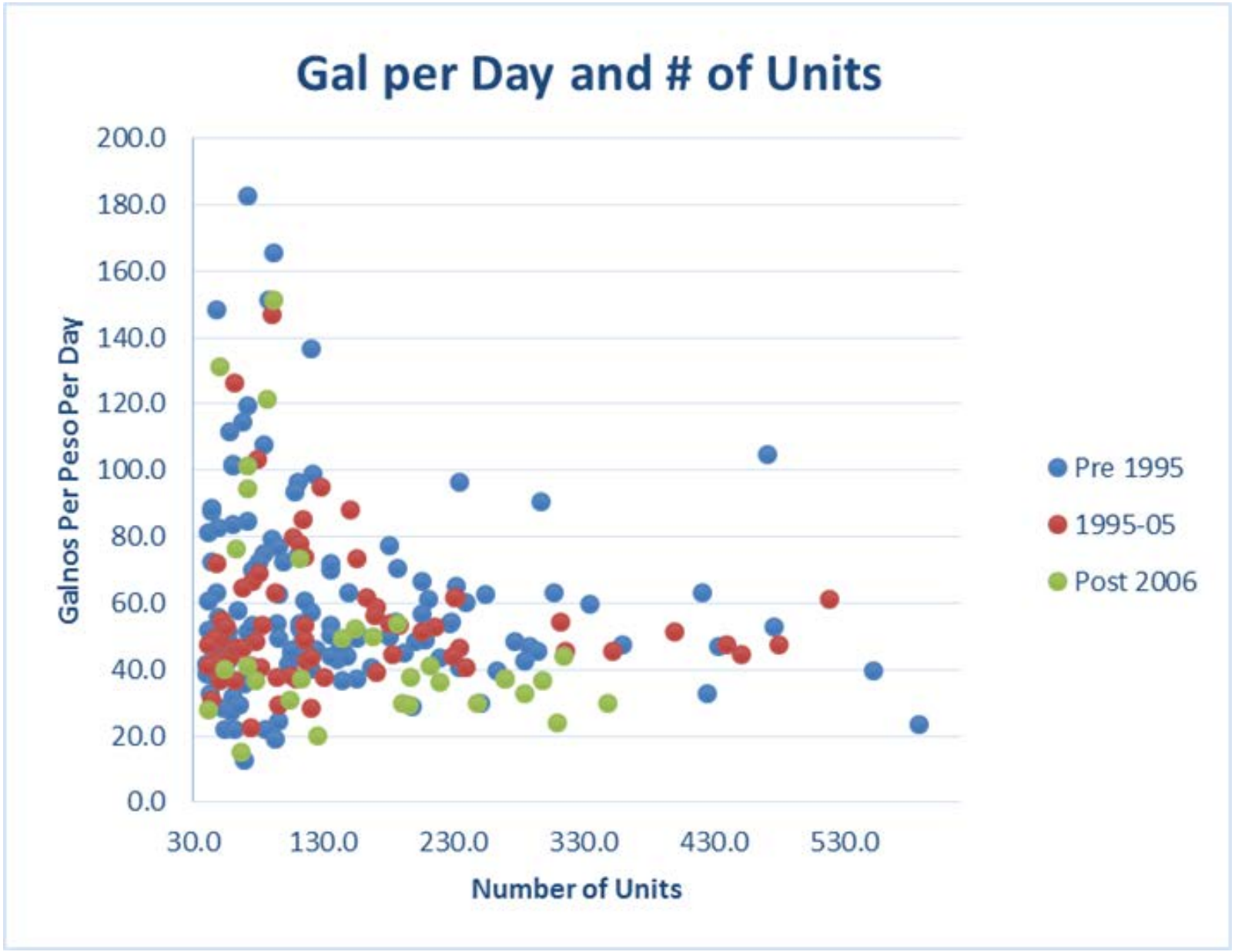
Results and Next Steps: Targeting

- WSC will remain an important program
  - 200+ units still target for this program
  - Year built may be less important
- There are still properties that meet requirements
  - Year built could be revisited as a requirement
- Using a vendor gives us more time to focus on new approaches
  - We will continue to look for solutions for those with less than 200 units
  - There are still a number of questions to investigate
    - Are our assumptions correct in the drivers of water use?
    - Would it be worth the time to investigate occupancy?
    - Are there other factors we aren't aware of?


Gal per Day and # of Units
Galnos Per Peso Per Day
200.0
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
30.0
130.0
230.0
330.0
430.0
530.0
Number of Units
Pre 1995
1995-05
Post 2006

Questions?

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