



# **C.A.S.H. / SEC Water Conservation Workshop**

August 12, 2015

Bakersfield

Brian Prine

Fruitvale School District

## **About Fruitvale School District**

**We are a K-12 School District  
One Education Facility/District Office/MOT**

**We have five school sites:**

**Endeavour 490,000 SF +/- watering surface**

**Columbia 300,000 SF +/- watering surface**

**Discovery 250,000 SF +/- watering surface**

**Quailwood 201,000 SF +/- watering surface**

**Fruitvale Junior High 200,000 SF +/- watering surface**

**Education Facility 30,000 SF +/- watering surface**

### What's on the Table for Discussion Executive Order-B-29-15

- Safety vs Requirements
- Restrictions & Fines
- Maintenance
- Irrigation
- Landscaping
- Plumbing
- Budget
- Architectural design
- DSA requirements
- Rebates
- Grants & Loans
- Effectiveness
- What's realistic
- New mind set
- New products

### Safety vs Requirements

- Safety has no bearing on mandated 32 to 36% water cut back requirement
- Three day a week watering
- Measurable rain stops watering
- No hosing down sites
- Grass fields may now be dirt fields
- Outside group use may be reduced or eliminated due to legal exposure, and field preservation.
- Fields may be dryer and harder

## Restrictions & Fines

- 32 to 36% water use reduction
- surcharge of twice the unit price on ccf for allotment overages
- \$ 500 fine per citation
- \$ 100 per day fines
- \$ 10,000 per day for providers
- What is a ccf (748 gallons)

## Maintenance

- What does it take to properly maintain you current lawn and irrigation system
- What would it take to maintain any future lawn, landscaping and irrigation system
- Do we have the budget for proper care of current and future systems
- Fertilizer, gypsum, fungicides and water absorbing agents currently used, and may need in the future

## **Irrigation**

- **Clocks and Sensors**
- **Proper use and sizing of sprinklers and pop-ups**
- **New low flow sprinkler products**
- **Underground watering**
- **Fertigation systems**
- **Drip irrigation**

## **Landscaping**

- **Dry scaping**
- **Artificial grass and plants**
- **Turf fields**
- **Cement**
- **Dirt**
- **Drought tolerant plants**
- **Bark or alternative bedding and pathway material**

## **Plumbing**

- **Waterless urinal**
- **Low flow flush valves**
- **Automatic flush valves and faucets**
- **High efficiency toilets, and urinals**
- **Maintenance**
- **Associated costs and problems**

## **Budget**

- **How much money will we spend**
- **How much money will we save**
- **How many man hours will we use**
- **How many man hours will we save**
- **How much will the cost of water go up**
- **Will the savings on cutbacks pay for future needs or just offset**

## **Architectural Design & DSA Requirements**

- **Planning for the future**
- **New School Design requirements**
- **Modernization upgrade requirements**
- **We need to know what we want as a District**

## **Rebates, Grants & Loans**

- **Check your individual provider for their opportunities to help**
- **Prop 39 money can be used**
- **Low interest loans**
- **PG&E financing and rebates**

## **Realistic**

- **What will work for us**
- **What can our budget handle**
- **What can we do with our man power**
- **What is the standard we are trying to achieve**

## **New Mind Set**

- **The old ways of doing things are gone**
- **We will have a new standard to uphold**
- **Even if the water tables come back we need to understand where we live and how we need to conserve and operate.**
- **Can we do more with less**
- **It might cost us a little more time and money**
- **What are we willing to settle for**

## **New Products**

- **Magnation water technologies**
- **EZ-FLO fertigation systems**
- **HOLGANIX, soil nourishing root stimulating**
- **HydroPoint WeatherTRAK Smart irrigation controller**
- **MP Rotators**

## **What are we doing**

- **Complying with restrictions and regulations**
- **Watering only three days a week**
- **Weekly sprinkler checks on all school fronts**
- **Monthly sprinkler checks on all fields**
- **Sprinkler repair work orders have high priority**
- **Manually turning off sprinklers after measurable rain (1/10 in.) for two days**
- **No longer hosing down school sites before school starts, open houses, carnivals and Easter break**



## **what are we doing cont.**

- **No more Water days at the end of the year**
- **No water consuming inflatable slides**
- **Tracking water usage**
- **Testing new products for viability**
- **Collecting data from our testing**
- **Collecting data from other trusted sources**
- **Evaluating effectiveness**

## **Effectiveness**

- **All sites have met their 32 to 36% reduction requirements**
- **Water savings for June all school sites 84,864 ccf equates to \$4,884.05**
- **Irrigation pump savings for four sites in June was \$635.44**
- **Water savings for July is 81,646 ccf equates to \$4,051.84**
- **Irrigation pump savings for four sites in July was \$635.44**

## **Effectiveness Cont.**

- **Magnation water treatment system showed a 29.97% increase in water penetration, and a 1.1 increase in moisture on a scale from 1-10.**
- **Magnation \$3,400 VS \$7,680 Aqua Duct annually**
- **Waterless urinals at Discovery would save 422.53 ccf per year. The payback would be 7.75 years**
- **Not all weekly sprinkler checks have taken place**
- **The monthly field sprinkler checks have taken place**

## **We will continue to round table about the topic**

- **Will the savings pay for \$20,000 fertigation set up for all sites**
- **Is it worth the \$50,000 per year investment in fertilizers and fungicides to restore and maintain fields**
- **Will the average savings of \$5,103.38 hold up for the year, for an annual savings of \$61,240.62**
- **What will be the next steps to take**

