


# Water Resource Planning Workshop

January 19, 2010  
Humboldt Bay Municipal Water District



## Introduction HBMWD's Situation and its Implications

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- ▶ Last year, HBMWD gave 30-40 presentations throughout the community regarding:
  - the District
  - our unique situation given loss of the pulp mills
  - implications for our customers, ratepayers and the community
- ▶ Today, not enough time to present all of the background information

## Today's Focus

1. Background- just enough to "set the stage"  
(many avenues available to learn more if interested)
2. Implications of HBMWD's situation
3. Options available to the District
4. Information and perspectives to support consideration of those options
5. Discussion and public input

## Introduction - Who we are


- ▶ Local public agency formed to provide the water supply needs of our community
- ▶ HBMWD built and operates a regional water system
- ▶ HBMWD operates at the *wholesale* level:
  - we deliver water to our *Municipal Customers*;
  - who then deliver it to residents and businesses in our community

## Introduction - HBMWD's Customers

- ▶ City of Arcata
- ▶ City of Blue Lake
- ▶ City of Eureka
- ▶ Fieldbrook-Glendale CSD
- ▶ Humboldt CSD
- ▶ Manila CSD
- ▶ McKinleyville CSD

## Quick Trip Back in Time ... Formation of HBMWD "By our Community, for our Community"

- ▶ District formed in 1956
- ▶ Initiated by community and business leaders for the benefit of our community
- ▶ **Overwhelming support:**
  - 89% voted to form District
  - 69% voted for bonds to build regional water system



## Reason District Formed in 1950s

- › To provide a reliable drinking water supply for cities of Eureka and Arcata
- › To attract pulp mills *here*:
  - provide local economic benefit;
  - utilize a waste product of the timber industry;
  - improve air quality (since waste product burned in tee-pee burners)
- › Pulp mills necessary component - if they did not locate here, regional system would not be built



## Two Components of Regional System

1. **Source of Supply** - Ruth Lake
2. **Delivery Systems** - Two separate and distinct systems (the "pumps and pipes")
  - Industrial System – supplies untreated water to customers on Samoa Peninsula
  - Domestic System – supplies treated drinking water to Municipalities

## Delivery System Capacity (how much water they can deliver)

**Industrial System** - 60 MGD

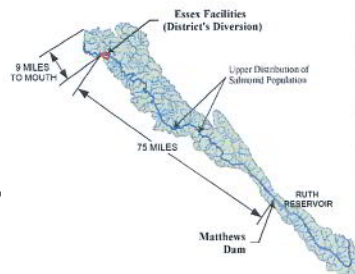
vs.

**Domestic System** - 20 MGD

**Key Point: Most of delivery capacity is on the Industrial System ( 75% of it)**

## Source of Supply – Ruth Lake

- › Reservoir in upper watershed captures small percentage of watershed run-off
- › Water stored at Ruth is released in summer & fall and flows down Mad River
- › Water diverted at Essex to serve community's water supply needs



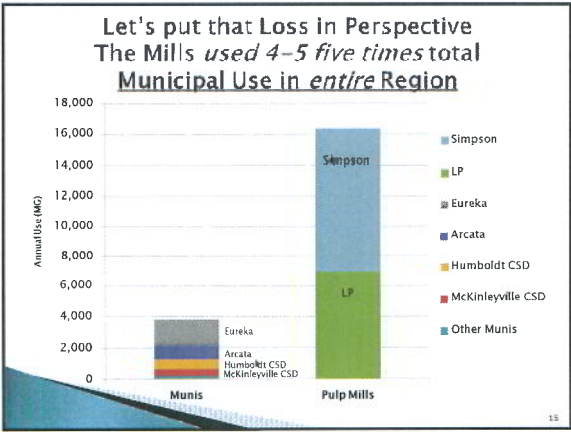
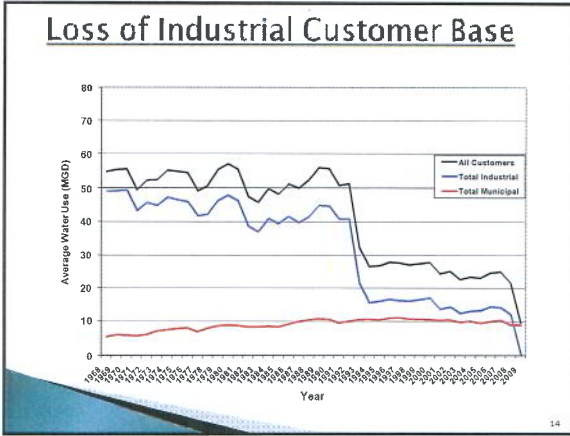
## Many Benefits during 50 Years of Service to Community

- › *Highly reliable water supply and delivery system*
- › *High quality source water* – given the watershed and natural filtration process for drinking water
- › *Environmentally-friendly system* (no out-of-basin water transfer; little impact to natural hydrograph of Mad River; enhanced flow in summer/fall which benefits fisheries)
- › *Efficient and cost effective system for ratepayers* compared to separate systems in each community
- › *Strong and effective partnership* with wholesale customers and other stakeholders in community

### But... HBMWD Faces Major Challenges

- ▶ Significant loss of customer base
- ▶ Aging Infrastructure – the regional water system is now 50 years old

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### Implications of this Loss ...

- ▶ Challenges with respect to our **water rights** which are held for benefit of our community
- ▶ Significant **cost increases** to HBMWD's wholesale Municipal Customers, with corresponding increases in end-use water rates
- ▶ Challenges with respect to how to fund costly infrastructure replacements

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### Water Rights

- ▶ State in essence "owns" surface water resources, and grants entities (such as HBMWD) the right to use this water for a specific purpose (called "beneficial use")
- ▶ HBMWD holds permits which allow use for municipal and industrial purposes
- ▶ If an entity does not fully use the water under permit, the State may revoke the right to use that water ("use-it-or-lose it" principle)

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### Significant Cost Increases

**HBMWD Costs to Municipal Customers:**

- ▶ 1999 = \$708,000
- ▶ 2008/09 = \$2,200,000 (tripling in 10 years)
- ▶ 2009/10 = \$3,500,000 (given loss of second mill, after cost cuts by HBMWD)
- ▶ 2010/11 = Likely \$3,900,000

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## Many Reasons for Cost Increases

- Loss of Pulp Mills: contributed \$1-\$2 million to HBMWD's "base" costs of regional water system
- New regional treatment plant => \$10.5 million
- Significant increase in power & regulatory costs

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## Future Increases Likely to be Significant Given Infrastructure Needs

### Utility Ratemaking Basics:

- HBMWD and Munis are public entities = *not-for-profit*
- Water (and sewer) rates *must* be *cost-based*
- Rates must cover the full cost of providing service
- Most agencies have not built into rates capital replacement costs

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## HBMWD Example

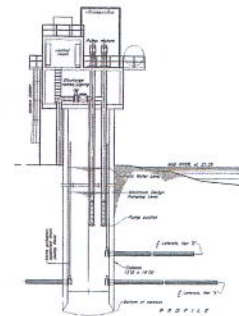
- Slough Crossing (Pile bent Replacement)
- Cost = \$1.1 million
- Munis paid \$400,000
- Mill paid \$700,000



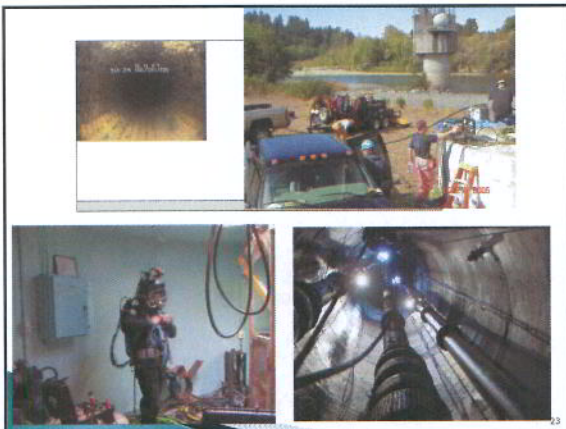
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## HBMWD Capital Improvement Plan

- 20-Year CIP nearly done
- Many high priority projects
- One of the highest priorities: replacement of Ranney laterals
  - \$1.5 - \$3.0 million each



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## Other Important Projects

- New water line to serve Blue Lake and FG-CSD (existing one on Annie-Mary rail bridge)
- Replacement of Techite line on Samoa Peninsula



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## And if Infrastructure Not Addressed Leaks or possibly Failure



## Rate Impacts to End-use Customers

- ▶ **Case Study:** Fieldbrook–Glendale CSD
- ▶ **Perspectives:** Humboldt CSD

## Fieldbrook–Glendale CSD

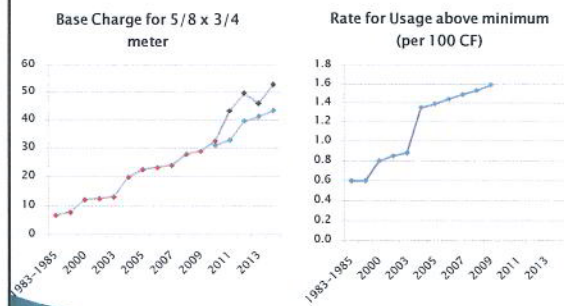
### Infrastructure needs too

- ▶ Just replaced roof on storage reservoir
- ▶ Additional reservoir needed
- ▶ Potentially need new booster station too



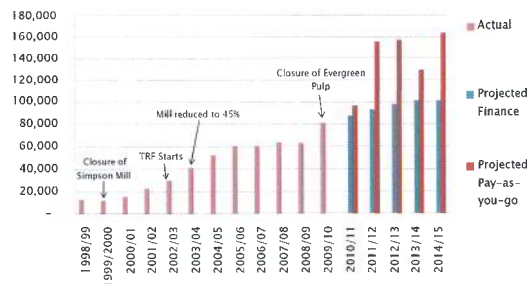
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## Fieldbrook/Glendale CSD Retail Rates



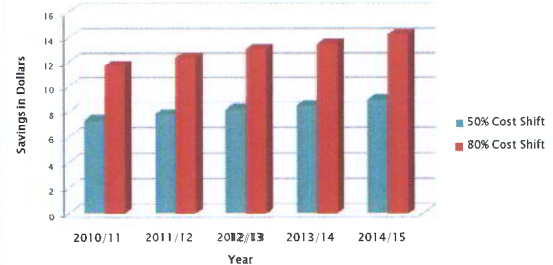
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## HBMWD Wholesale Water Charges to FG-CSD



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## Potential Reduction in Monthly Costs if Enough Water is Sold (whether locally or exported)



\*This represents a reduction of between 20% and 36% in total monthly water rates.

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## Humboldt CSD

- ▶ Perspectives
- ▶ Importance of Ratepayer considerations

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