

Adapting Water Conservation Programs

**Examples from Two Different Water Providers:
Sterling Ranch & North Table Mountain WSD**

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Overview



- **District characteristics**
- **Water Conservation Plan development**
- **How the CWW BP Guidebook would have been helpful**
- **Selection of appropriate water conservation programs**
 - **Examples**
 - **How programs stack up against the CWW BPs**



Sterling Ranch and NTM



Key Characteristics

Characteristic	Sterling Ranch	NTM
Status	Planned	Existing
County	Douglas	Jefferson
Service Area Acreage	3,500	5,700 (could add 1,500)
Utility Size	Medium	Medium
Current Population	0	10,000
Build Out Population	Up to ~30,000 people	Up to ~30,000 people
Est. Build Out Year	2026	2036
Primary Use	SF Residential	SF Residential
Current Lot Size	NA	Older Horse Properties, Newer Clustered Lots
Future Lot Size	Clustered, with Parks, Open Space & Trails	Range (tend to be smaller), Close to Open Space & Trails
Water Supply	Implementing Conjunctive Use (surface & ground water)	Long-Term Contract with Denver Water
Water Conservation Plan	Key Residential & Public Landscaping Programs Developed	State Approved in 2009, Implementation Grant Being Reviewed

North Table Mountain WSD

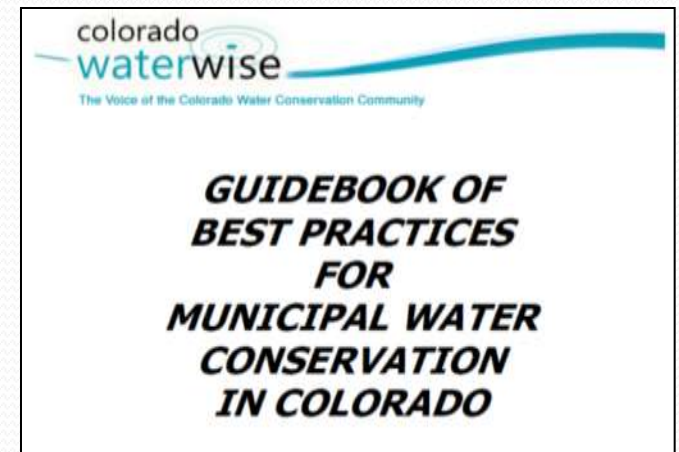
- Received a CWCB Water Conservation Planning Grant
- 2009 – 2015 Water Conservation Plan has been approved by the State
- Currently implementing WC Plan and have Water Efficiency Implementation Grant Request in to CWCB
- Address existing and new development
- Right thing to do, plan for build out
- Limited by staff and financial resources, “business is to sell water”

Sterling Ranch WC Planning

- Opportunity to be “Smart from the Start”
- Right thing to do, serve as model community
- Responsible planning for a water supply challenged part of the state
- Water is expensive, lower use rates will result in lower costs
- During Water Plan and zoning process developed key residential (single family) and public irrigated areas (parks, open space, ball fields) water conservation plan
- Currently developing specific programs, regulations, and specifications (including other water use sectors)

CWW BP Guidebook

- **CWW BP Guidebook was not available**
- **Many water conservation resources utilized**
 - CWCB WCP Development Guidance Document
 - Review of existing water conservation plans, programs and regulations (Colorado and beyond)
 - Studies, websites, journals, template programs and ordinances
- **CWW BP Guidebook will help utilities prioritize program areas. Utilities will still need to develop specifics appropriate to their needs and resources.**



Sterling Ranch and NTM

- **Both have adopted different levels of water conservation appropriate to their community and resources**
- **Sterling Ranch hasn't fully developed programs for non-residential customers yet**
- **Programs adopted but may not have been fully developed or implemented**
- **Additional programs and program details will be developed over time**
- **Both identified CWW BPs as key programs**

Suite 1: Foundational, No-Excuse

Best Practice	Example Programs (currently adopted though may not yet be in place)	Sterling Ranch	NTM
Metering, conservation-oriented rates and tap fees, customer categorization within billing system	100% metering (indoor & outdoor use broken out)	X	X
	Inclining block rate billing structure	X	X
	Customers categorized by type	X	X
	Individual water budgets (indoor	X	
Integrated resources planning, goal setting and demand monitoring	Integrated water conservation, demand & supply planning	X	X
	Robust water use/billing database	X	X
	Water Conservation Plan, reporting, modifications	X	X
System water loss control	Ongoing system monitoring, leak detection and repair	X	X
	AWWA Water Audit		X
Conservation coordinator	Water conservation coordinator/director	X	X
	Dedicated water conservation staff	X	
	Water conservation training for non-conservation staff	X	X
Water waste ordinance	Waste of Water Regulations with escalating consequences	X	X
Public information and education	Educational billing, current/historical water use, tiers...	X	X
	Customer notification of high water use	X	X
	Public campaigns and school programs	X	X
	Landscaping/irrigation trainings		X
	Efficiency audits offered for re-sales	X	
	Industry specific education		X
	Technical assistance	X	X

Understanding your new City of Albany utility bill

1 Bills are now due and payable upon receipt. Accounts are considered past due if not paid within 15 calendar days of the billing date.

2 City of Albany Utility Billing now uses P.O. Box 945.

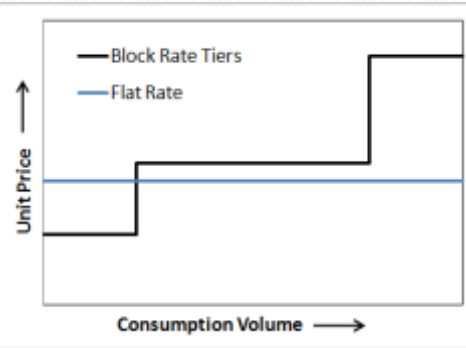
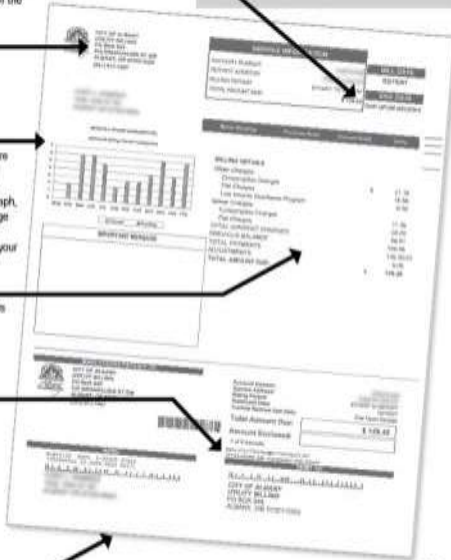
3 This new bill is more readable, features a larger monthly historical usage graph, and has an message box for important information about your city utilities.

4 Your new bill shows a detailed list of water and sewer charges for the current month.

5 For your convenience, our office hours are printed on every bill. We also have a new e-mail address you can use for questions about your bill.

6 On the reverse side of your new bill, you will find updated information on service inquiries or changes, payment methods, drop box locations, and meter and payment box tampering.

Your new utility bill has several changes that we hope will make the charges for your monthly water and sewer usage easier to understand.



for Valley Water District

Normal District
 95A CA 90792-0097
 95-0474
 www.vwd.org
 For Emergency Service Call (707) 249-0424
 Service District Number (707) 933-2136

CYCLE BILL

Account Information

CUSTOMER ID: 12345
 CUSTOMER ADDRESS: 12345 ELEGANT ST
 CUSTOMER PHONE: (999) 234-1234
 BILLING DATE: 11/21/2005
 SERVICE FROM: 12/06/2005
 SERVICE TO: 11/15/2005

Previous Activity

PREVIOUS BILL AMOUNT: 52.88
 PAYMENTS RECEIVED: 53.88

Current Charges

MONTHLY SERVICE: 14.01
 CONSUMPTION: 17.47
 ANIMAL TREATMENT SURCH: 2.13
 TOTAL WATER: 33.61

CONSUMPTION	UNITS*	GALLONS
WATER	25	18,700

TOTAL CURRENT CHARGE: 33.61

TOTAL DUE BY: 12/6/2005 **\$33.64**

AVERAGE COST/DAY: 1.21

ONLINE PAYMENT
 *Go to www.vwdwater.org
 *Your account number is: 12345-11111
 *Your pin number is: 112233



*One Unit = 100 Cubic Ft = 7.48 Gals

PAYMENT COUPON

CUSTOMER NAME: MR & MRS JOHN DOE
 ACCOUNT NUMBER: 12345-11111
 SERVICE ADDRESS: 12345 ELEGANT ST
 CITY/TOWN/STATE: 05 15
 BILLING DATE: 11/21/2005
 DUE DATE: 12/6/2005

Total Amount Due: **\$33.64**

CHECK NO.	AMOUNT PAID
	\$

Check here for an address change and/or out of town bill payment.

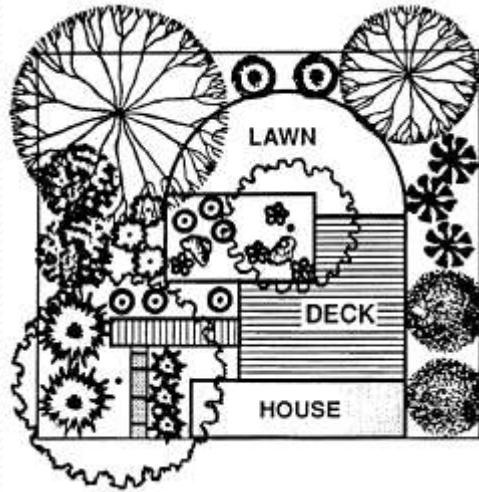
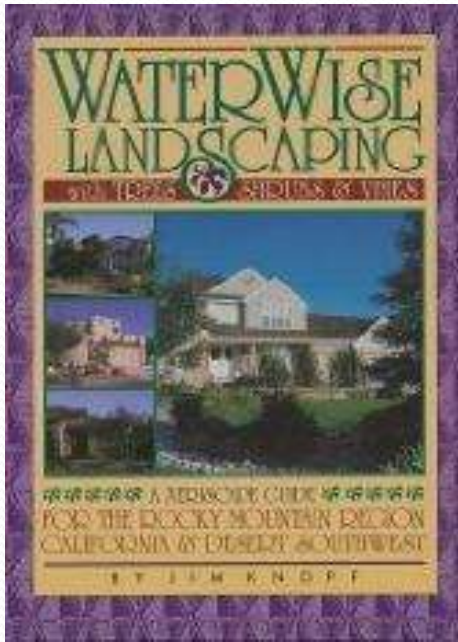
This is not a bill - sample only - do not pay!

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Suite 2: Foundational and Regulatory

Best Practice	Example Programs (currently adopted though may not yet be in place)	Sterling Ranch	NTM
Rules and regulations for landscape design and installation and certification of landscape professionals	CC&Rs, Architectural Control Committee enforceable regs	X	
	Outdoor water budget = 17.4 gal/sf/yr for avg 1500 sf/home	X	
	Residential landscape plan approval requirement (front and back yards) including max. irrigated area requirement	X	
	Residential landscaping and irrigation system inspections	X	
	Common area water budgets, landscape and irrigation system plan approval (and inspections for Sterling Ranch)	X	X
	Soil Amendment Requirements	X	X
	Landscaping/Irrigation Professional Certifications	X	X
Water efficient design, installation and maintenance practices for new and existing landscapes	Outdoor watering schedule		X
	Ongoing customer water use monitoring	X	X
	Outdoor water audits for high use customers	X	X
	WaterWise demonstration garden	X	X
	Smart controller, rain sensor rebates (pilot)		X
	Public areas: native/low water plants; limited turf; soil amendments; central controlled system; ongoing monitoring, inspection, and adjustment; drip irrigation; ongoing landscape maintenance; knowledgeable landscape and irrigation staff	X	
Rules for new construction	Waterwise home certification for 100% of all new homes	X	
	Cooling system regulations		X



Suite 3: Complete Package

Best Practice	Example Programs (currently adopted though may not yet be in place)	Sterling Ranch	NTM
Landscape water budgets, information and customer feedback	Residential outdoor water budgets	X	
	Billing w/current, historical and budgeted (for Sterling Ranch) outdoor use	X	X
Irrigation efficiency evaluations	Ongoing monitoring, ID and response to high water use	X	X
	Irrigation audits and technical assistance	X	X
	Efficiency audits offered for re-sales	X	
High-efficiency fixture and appliance replacement	Toilet rebate program (pilot)		X
	Free water conservation kits		X
	Efficiency audits offered for re-sales	X	
Residential water surveys and evaluations, targeted at high demand customers	ID and response to high water use/potential leaks	X	X
	Irrigation audits and technical assistance	X	X
Specialized non-residential surveys, audits, and equipment efficiency improvements	Ongoing customer water use monitoring	X	X
	ID and response to high water use/potential leaks	X	X

In Conclusion

- **Communities need to consider their specific characteristics, resources, and motivations, among other items, when developing conservation programs**
- **There are many resources available and communities should be creative in adapting programs to their specific needs**
- **New development provides an important opportunity to implement comprehensive conservation programs**
- **Small and medium sized utilities can develop comprehensive programs**
- **The CWW BP Guidebook can be used to ensure that priority program areas are being addressed**

Questions & Comments?

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