



CITY OF RIFLE PLANNING COMMISSION REGULAR MEETING

September 25, 2018
Rifle City Hall – Council Chambers

6:00 PM Workshop – Water Efficiency Plan

Regular Meeting

No Regular Meeting

The order and times of agenda items listed above are approximate and intended as a guideline for the Planning Commissioners.

Next Regular Planning Commission Meeting: October 30, 2018



CITY OF RIFLE
202 RAILROAD AVENUE • P.O. BOX 1908 • RIFLE, CO 81650
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City of Rifle Water Efficiency Plan Status Meeting Agenda

September 25, 2018

Type of Meeting: Water Efficiency Plan Status Meeting

Meeting Facilitator: SGM (Angie Fowler, PE & Bailey Leppek, PE)

Invitees: City of Rifle Planning Commission

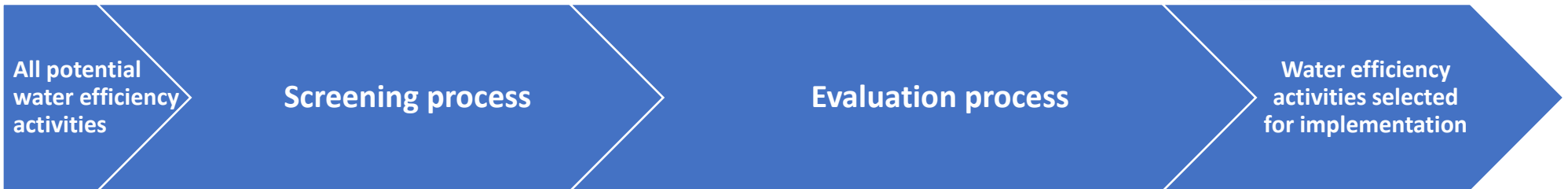
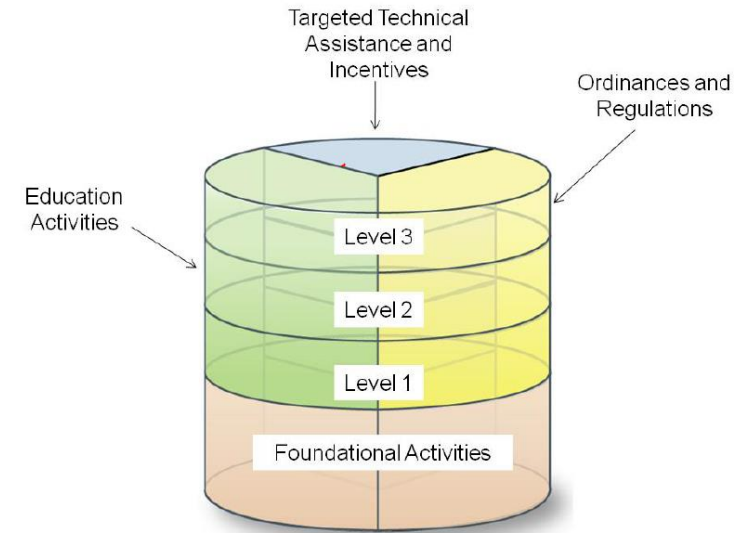
- Review 2008 Water Efficiency/Conservation Plan & Process
- 2008 Plan Implementation
 - Screening Criteria
 - Goals
 - What has changed since then?
- 2018 Water Efficiency Plan
 - Approach
 - Planning Commission's role
 - Schedule
 - Review water efficiency activities selection process
- Discussion
- Next Steps

CITY OF RIFLE 2018 WATER EFFICIENCY PLAN

Infographic of Rifle Water Demand Types

Total Water Diverted by City of Rifle	Raw Diversions from Rifle Creek for Raw Water Irrigation of Parks			Non-Revenue Water	
	Raw Diversions from Colorado River for Potable System	Unrecovered Water from Treatment Plant			
		Total Finished Treated Water Produced	Unbilled Authorized Consumption <i>Metered & Unmetered</i>		
			Apparent Losses <i>Unauthorized consumption, Meter inaccuracies, Systematic data handling errors</i>		
			Real Losses <i>Leakage on transmission & distribution mains & service connections, Leakage & overflows on storage</i>		
Billed Authorized Consumption <i>Water delivered to customers and measured at customer water meters</i>		Revenue Water			

SWSI Levels Framework of Demand Management Activities



Water Efficiency Activity Screening Criteria

1. Has measure been budgeted?
2. Is measure cost effective?
3. Is there an above average potential to save water?
4. City staff resources available?
5. Is measure legally feasible?
6. Is measure technically feasible?

Water Efficiency Goals

1. Reduce total non-revenue water (including real system losses) from ~12% to below 10%.
2. Reduce summer peak day water use by 10%.
3. Maintain sufficient revenue stream to pay for the City's outstanding debts (including the RRWPF) and fund operations and maintenance costs in a way that is fair and equitable.

WORKSHEET H - EVALUATION AND SELECTION OF WATER EFFICIENCY ACTIVITIES

Water Efficiency Activities for Evaluation [1]	Existing/ Planned/ Potential Activity [2]	Targeted Customer Category [3]	Review of Qualitative Screening							Implement- ation Period of Historical Activities	Historical Total Water Savings (AF)	Implementatio n Period of New Activities	Evaluation						Final Selection [8]			
			Qualitative Goals [4]										Projected Water Savings [5]		Projected Implementation Costs [6]	Quantitative Goals [7]				Selected for Implementation		
			Has measure been budgeted?	Is measure cost effective?	Is there an above average potential to save water?	City staff resources available?	Is measure legally feasible?	Is measure technically feasible?	Total Water Savings (AF)				Average Annual Water Savings (AF)	Reduce non-revenue water and system losses by ___ %		Reduce summer peak day water use by ___ %	Maintain sufficient revenue stream to cover debts.	Notes on Additional Pros/Cons to Consider		If Eliminated, Reason Why Eliminated		
Foundational Activities																						
Inclining/Tiered Rates (Rifle already has inclining tiered rates, and is planning another water rate basis evaluation in 2019)	Existing	All	Yes	Yes	Yes	Yes	Yes	Yes	2013	2014	210	-	-	-	-	Existing		X	X		X	
Water Rate Adjustments (Water rate basis evaluation planned for 2019)	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	2014	2017	30	2020	2025	210	42	\$35,000 (Rate study)		X	X		X	
Meter Installation - Non-potable irrigation to City property	Planned	City	Yes	Yes	Yes	Yes	Yes	Yes				2019	2025	24	4	\$1,000	X		X		X	
Tap Fees with Water Use Efficiency Incentives (Tap fee evaluation)	Planned	New developm't	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2020	2025	35	7	\$7,000 (Tap fee study)	X		X		X	
Water Line Replacement Program (Develop formal replacement program)	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2020	2025	45	9	\$120 - \$150 (cost per linear foot)	X			Replacing aging lines reduces risk of leaks.	X	
Asset management of water system pipelines	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	N/A (Robert Burns)	X			Used to guide the water line replacement program. Better understanding of system.	X	
Capital Improvement Plans (Water and wastewater CIPs under development)	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2016	2025	Unk.	Unk.	N/A (Robert Burns)	X		X	Already under development. Aligns with water line replacement program. Helps City plan costs. Will help guide water rate & tap fee study.	X	
Drought Management Plan (in progress)	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	N/A (Robert Burns)		X		Helps to guide ordinances.	X	
Designate Existing Staff Person as Efficiency Coordinator	Planned	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2018	2025	Unk.	Unk.	N/A (Robert Burns)				Robert is already taking on this role by spearheading the efficiency plan update and the drought management plan.	X	
Planning Group / Committee Dedicated to Efficiency - Coordinate with Planning Commission on Efficiency Plan and Efficiency Activities	Planned	All	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2018	2025	Unk.	Unk.	N/A				Planning Commission is also involved in the Comprehensive Plan and other land use decisions. Their involvement will help align the goals of water and land use planning.	X	
Master Plans/Water Supply Plans	Potential	All	No	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	Unk.	Unk.	N/A					Council wishes to finish updating the City's Comprehensive Plan, then update Master Plans / Water Supply Plans all at once.	
Assure consumers maintain service line	Potential	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2018	2025	14	2	N/A	X		X	Help customers catch leaks and avoid high water bills.	X	
Targeted Technical Assistance and Incentives																						
Removal of Phreatophytes - in City managed irrigation ditches for raw water irrigation of City Parks	Existing	All	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	6	1	\$1,000 per year	X				X	
Outdoor Irrigation Controllers - targeted giveaways of smart irrigation controller or system timers, esp. for large customers. Target 5 of largest customers with irrigation, evaluate participation and success.	Potential	Large irrig. Customers	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	6	1	\$1,000 (5 at \$200 each)		X		Help customers reduce water bill.	X	
Outdoor Irrigation Controllers - implement on City managed parks / green spaces that are on potable water.	Potential	City	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	12	2	\$2,000 (10 at \$200 each)		X			X	
Rain Sensors - targeted giveaways of smart irrigation controller or system timers, esp. for large customers. Start with 50, evaluate participation.	Potential	Large irrig. Customers	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	36	6	\$1,500 (50 at \$30 each)		X		Help customers reduce water bill.	X	
Rain Sensors - implement on City managed parks / green spaces	Potential	City	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	6	1	\$300 (10 at \$30 each)		X			X	
Xeriscape - xeriscape gardens on City managed parks / green spaces	Potential	City	No	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	12	2	\$1.50-\$2.50 per sq.ft. (\$65,000-\$109,000 per acre)		X		Tried this at the water plant in the past, & received political pushback. Savings do not outweigh cost & difficulty.		
Other Low Water Use Landscapes - Implement on City managed parks / green spaces	Potential	City	No	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	42	7	\$1.50-\$2.50 per sq.ft. (\$65,000-\$109,000 per acre)		X		Other higher priorities for City staff. Savings do not outweigh cost and difficulty.		
Give-aways: (Giveaway irrigation system timers). Start with 50, evaluate participation.	Potential	Residential	No	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	18	3	\$1,500 (50 at \$30 each)		X		Help customers reduce water bill.	X	

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			Qualitative Goals [4]										Projected Water Savings [5]		Projected Implementation Costs [6]	Quantitative Goals [7]			Selected for Implementation				
			Has measure been budgeted?	Is measure cost effective?	Is there an above average potential to save water?	City staff resources available?	Is measure legally feasible?	Is measure technically feasible?	Total Water Savings (AF)				Average Annual Water Savings (AF)	Reduce non-revenue water and system losses by ___ %			If Eliminated, Reason Why Eliminated						
														Reduce summer peak day water use by ___ %					Maintain sufficient revenue stream to cover debts.				
											Notes on Additional Pros/Cons to Consider												
Ordinances and Regulations																							
Rules and Regulations for Landscape Design/Installation (BP 9) (Municipal Code Sec. 16-13-20 outlines the seven basic principles and key considerations for water efficient landscape design from Colorado Water Wise Best Practices Guide (pg 127)).	Existing	Comm. Ind. City, Multi-fam Resid.	NA	Yes	Yes	Yes	Yes	Yes	2014	2018	20	2019	2025	6	1	Low, w/out enforcement	X	Existing regulation. Past success.	X				
Soil Amendment Requirements (BP 9) (included in Municipal Code Sec. 16-13-20, which outlines the seven basic principles and key considerations for water efficient landscape design).	Existing	All with irrig.	NA	No	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	\$275 - \$500 per 1,000 sq. ft.	X	Existing regulation. Past success.	X				
Turf Restrictions (BP 9): (General landscape requirements for commercial, industrial, civic, and multi-family uses may have a maximum of 50% area with Turf (Sec. 16-13-80 (c))	Existing	Comm. Ind. City, Multi-fam Resid.	NA	Yes	Yes	Yes	Yes	Yes	2014	2018	40	2018	2025	21	3	Low, w/out enforcement	X	Existing regulation. Past success.	X				
Turf Restrictions (BP 9): (EQR defined as up to 5,000 SF. Irrigated area above that is allowed but charged a higher tap fee (Sec. 13-4-60)).	Existing	Single-fam. Resid.	NA	Yes	Yes	Yes	Yes	Yes	2012	2018	Unk.	2012	2018	Unk.	Unk.	Low, w/out enforcement	X	X	Existing regulation. Past success.	X			
Xeriscape Requirement (BP 9): (General landscape requirements for commercial, industrial, civic, and multi-family uses must have at least 50% xeric plants (Sec. 16-13-80 (c))	Existing	Comm. Ind. City, Multi-fam Resid.	NA	Yes	Yes	Yes	Yes	Yes	2014	2018	40	2018	2025	7	1	\$1.50-\$2.50 per sq.ft. (\$65,000-\$109,000 per acre)	X	Existing regulation. Past success.	X				
Water Waste Ordinance (BP 5) - incorporate restrictions into Drought Management Plan, then into City's updated Comprehensive Plan for new development. Potentially add to Municipal Code.	Planned	All, esp. residential	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	24	4	Low, w/out enforcement	X	Help's City's ability to respond to a drought with restrictions. Aligns with drought management plan and comprehensive plan update.	X				
Time of Day Watering Restriction - incorporate restrictions into Drought Management Plan, then into City's updated Comprehensive Plan for new development. Potentially add to Municipal Code.	Planned	All, esp. residential	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	0	0	Low, w/out enforcement	X	Help's City's ability to respond to a drought with restrictions. Aligns with drought management plan and comprehensive plan update.	X				
Day of Week Watering Restriction - incorporate restrictions into Drought Management Plan, then into City's updated Comprehensive Plan for new development. Potentially add to Municipal Code.	Planned	All, esp. residential	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	0	0	Low, w/out enforcement	X	Help's City's ability to respond to a drought with restrictions. Aligns with drought management plan and comprehensive plan update.	X				
Water Overspray Limitations - incorporate restrictions into Drought Management Plan, then into City's updated Comprehensive Plan for new development. Potentially add to Municipal Code.	Planned	All, esp. residential	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	24	4	Low, w/out enforcement	X	Help's City's ability to respond to a drought with restrictions. Aligns with drought management plan and comprehensive plan update.	X				
Landscape Training and Certification (BP 8)	Potential	All with irrig.	NA	No	Yes	No	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	?	X	Potentially cost prohibitive to landscapers.	?				
Irrigation System Installer Training and Certification (BP 8). Formerly had a sprinkler system permit ordinance in Section 14 of Municipal Code.	Potential	All with irrig.	NA	No	Yes	No	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	?	X	Potentially cost prohibitive to irrigation installers, costs would be passed on to consumers and may discourage re-design.	?				
Xeriscape Requirement (BP 9): (General landscape requirements for single-family residential)	Potential	Single-fam. Resid.	NA	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	12	2	\$1.50-\$2.50 per sq.ft. (\$1,500-\$2,000 per 1,000 sq. ft.)	X		Too much expense placed on single family homeowners, not equitable. Not politically favorable.				
Commercial Cooling and Process Water Requirements (BP 14)	Potential	City, Comm.	NA	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	Low, w/out enforcement		Mostly applies to CoGen Plant.	?				
Green Building Construction (BP 12)	Potential	All	NA	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	Low, w/out enforcement			Too much expense placed on developers and community.				
Indoor Plumbing Requirements (BP 12)	Potential	All	NA	Yes	Yes	Yes	Yes	Yes				2019	2025	Unk.	Unk.	Low, w/out enforcement	X	X	Previous high efficiency indoor plumbing fixture design req'ts - no ordinance approval by Council	?			
Commercial Water Wise Use Regulations (Car Washes, Restaurants, etc.)	Potential	Commercial	NA	Yes	Yes	Yes	Yes	Yes	-	-	-	2019	2025	Unk.	Unk.	Low, w/out enforcement		X		?			
Education Activities																							
Web Pages (Improve & add to existing web pages)	Existing	Website Viewers	No	Yes	Yes	Yes	Yes	Yes				2019	2025	12	2	N/A			Help customers manage their water bill.	X			
Bill Stuffers	Potential	All	Yes	Yes	Yes	Yes	Yes	Yes				2019	2025	12	2	\$2,000			Help customers manage their water bill.	X			
K-12 Teacher and Classroom Education Programs	Potential	Select Students	No	Yes	Yes	Yes	Yes	Yes				2019	2025	12	2	\$100 - \$1,000			Promote interest in utility careers.	X			
Interactive Websites (provide links to useful webpages created by EPA, WaterWise, etc.)	Potential	Website Viewers	No	Yes	Yes	Yes	Yes	Yes				2019	2025	12	2	N/A			Help customers manage their water bill.	X			
													Total Estimated Savings:		524		99		6%		Annual savings are 6% of total raw and potable water delivered to customers in 2017		
													Raw Water:		30		5		4%		Annual savings are 4% of estimated raw water use from 2017		
													Potable Water:		494		94		6%		Annual savings are 6% of total finished (treated) water produced - 2017		

- Instructions:
- List of water efficiency activities that were carried to the evaluation process (based upon Worksheets D through G). If applicable, this column identifies the Best Practice activity as defined under Colorado WaterWise Guidebook of Best Practices (BP) for Municipal Water Conservation in Colorado.
 - Specify whether the activity is "Existing" or "Potential" activity by entering an "E" or "P", respectively.
 - As applicable, specify which customer category (residential, commercial, etc.) is/would be impacted by the activity.
 - Enter the screening results from Worksheets D through G by entering the screening criteria and appropriate "X" designations.
 - As applicable, enter the estimated water savings to implement the activities within the planning horizon and the average annual water savings. Enter N/A if the water savings can not be estimated with reasonable accuracy.
 - As applicable, enter the estimated annual costs.
 - Enter evaluation criteria based on quantitative goals developed in Step 3 and insert an "X" for activities that meet the listed criteria.
 - Enter an "X" for activities selected for implementation and provide an explanation if an activity was not selected for implementation.