

6 February 2019

Adopted by City Council 12 February 2019

Memorandum

To: Jolynn Becker – City of Banks
From: Rob Peacock – Kennedy/Jenks Consultants
Subject: Updated Water System Capital Improvement Plan 2019
K/J 0791015*00

An updated Water System Capital Improvement Plan (CIP) is presented in this memorandum. For this update, we have added the following items:

- Capital Improvements recommended in the 2018 ASR Feasibility Study, including a Dairy Creek Intake, Water Treatment Plant, Transmission Line, and ASR Well retrofit
- Updated engineer’s estimates from the Transmission Line Improvements Project, with breakdown in Table 1:
 - Banks Road extended to include approximately 1,700 additional linear feet of 6-inch diameter water main will serve existing customers east of Aerts Rd (not SDC-eligible)
 - Cedar Canyon Road waterline, including two trenchless creek crossings
 - Woollen Road including approximately 2,400 linear feet of 6-inch diameter water main (not SDC-eligible)
 - Carsten Tank No. 1 Rehabilitation
- Commerce Street Waterline Project (in construction) bid price has been updated in the CIP list

The Transmission Line Project includes several projects on the CIP list. Design is anticipated to be completed by April 2019 and construction by September 2020. The improvement costs are provided in Table 1.

Table 1: Water Line Extension Projects and Reservoir Rehabilitation (in progress)

Description	Estimated Project Cost
Transmission Line Northstar to Highway 26	\$650,000
Transmission Line US 26 to South End	\$1,350,000
Banks Road Line Replacement	\$650,000
Cedar Canyon Line Replacement	\$500,000
Woolen Road Waterline	\$200,000
Carsten Tank No. 1 Rehabilitation	\$650,000
Total	\$4,000,000

Table 2, attached, summarizes the updated CIP.

Table 2: Water System Capital Improvement Plan

Water Master Plan CIP Project	Description	Project Cost	SDC-Eligible Cost	Schedule	Project Status
	Water Conservation Management Plan Update ⁽⁵⁾	\$35,000	\$0	2020	By August 2020
	Distribution System Looping and Upgrades				
6D	Commerce Street Waterline Looping ⁽¹⁾	\$652,000	\$0	2019	Construction
6A/6B	Park/Woodman Street ⁽²⁾	\$580,000	\$0	2020-2021	Funding Application
	Banks Road Line Replacement ⁽³⁾	\$650,000	\$0	2019-2020	Design Phase
6F	Cedar Canyon Line Replacement ⁽³⁾	\$500,000	\$0	2019-2020	Design Phase
2	Transmission Pipeline Replacement ⁽³⁾	\$2,000,000	\$400,000	2019-2020	Design Phase
	Woollen Road Pipeline Replacement	\$200,000	\$0	2019-2020	
	Source Water Protection Plan ⁽⁵⁾	\$60,000	\$0	2020	
11A	Quail Valley Golf Course Study, Design, and Construction ⁽⁵⁾⁽⁹⁾	\$1,550,000	\$1,550,000	2019-2021	
11B	Sellers Rd Well Field Study/Design/Construction ⁽⁵⁾⁽⁹⁾	\$2,230,000	\$2,230,000	2019-2021	
Phase II ASR Implementation	Well 2: ASR Modifications ⁽⁴⁾	\$310,000	\$310,000	2020-2024	
	West Dairy Creek Diversion & Water Treatment Plant ⁽⁴⁾	\$4,440,000	\$4,440,000	2020-2024	
Phase III ASR Implementation/11C	Southwest Well ASR Expansion ⁽⁴⁾	\$2,900,000	\$2,900,000	2024-2028	
	Carsten Reservoirs Rehabilitation				
2.1	Reservoir No. 1 Rehabilitation ⁽³⁾	\$650,000	\$0	2019-2020	Design Phase
	Reservoir No. 2 Rehabilitation ⁽⁶⁾	\$1,100,000	\$0	2021-2022	
5	1.0-MG New Main Zone Reservoir ⁽⁵⁾	\$2,520,000	\$2,520,000	2024	
10	Leak Detection Survey ⁽⁷⁾	\$35,000	\$0	Every 3 years	Ongoing
	Water Master Plan Update ⁽⁵⁾	\$60,000	\$0	2025	
8	Automatic Meter Reading ⁽⁵⁾	\$480,000	\$0	optional	
	Security System Upgrades ⁽⁵⁾	\$120,000	\$0	optional	
3.3	SSF Inlet Control ⁽⁵⁾	\$6,000	\$0	optional	
CIP Total		\$21,080,000	\$14,350,000		

Notes:

- (1) 2018 Commerce Street Waterline Project Bid
- (2) 2017 Budgetary Estimate for CDBG Funding
- (3) 2018 Engineer's Estimate from Transmission Project
- (4) 2018 Budgetary Estimate from ASR Feasibility Study

- (5) 2014 CIP Cost Projected forward using ENR CCI National Average
- (6) 2019 Estimate based on same factors as Tank No. 1 Engineer's Estimate
- (7) 2019 \$7,000 per event, 1 event per year
- (8) Includes more pipeline length than covered in the 2011 CIP
- (9) These projects may not be required because new projects have been added