

Appendix E

Documents Related to CIP Program

The [June 2020 Wastewater Master Plan Update and Major Facility Condition Assessment](#) is available at this link, as well as the original [2011 Master Plan Final Report](#). The table presented on the following page is an excerpt from the June 2020 document.

**CITY OF BENICIA WASTEWATER MASTER PLAN UPDATE AND MAJOR FACILITY CONDITION ASSESSMENT
TECHNICAL MEMORANDUM NO. 5 – CONDITION ASSESSMENT OF WASTEWATER COLLECTION SYSTEM**

Table 5-2 Condition Assessment Summary ^[1]

Project Number	Project Name	Project Condition Rating Range (1-5)	Overall Remaining Useful Life (Years)	Consequence of Failure (1-5)	Probability of Failure (1-5)	Risk of Failure Range (0-100)
WWC-001	181 East K Street	4	12	5	4	80
WWC-002	El Bonito Way (force main)	4	6	4	4	64
WWC-003	Hillcrest Avenue	3	18	3	3	36
WWC-004	Elane Way	4	11	5	4	80
WWC-005	255 East O Street/Wingfield Way	3	20	3	3	36
WWC-006	500 East H Street	4	10	4	4	64
WWC-007	Jackson Street	4	10	4	4	64
WWC-008	Polk Street	4	10	4	4	64
WWC-009	200 Block East L Street	3	20	2	3	24
WWC-010	300 Block East L Street	3	20	2	3	24
WWC-011	Chelsea Hills Drive	3	20	4	3	48
WWC-012	West 2 nd Street/Military West	3	17	2	3	24
WWC-013	375 Military East	3	18	3	3	36
WWC-014	Clocktower	4	9	2	4	32
WWC-015	East 3 rd Street/East S Street	3	20	4	3	48
WWC-016	East Channel Road	4	11	4	4	64
WWC-017	I-780 Crossing @ West 7 th Street	3	21	4	3	48
WWC-018	Rose Drive/London Circle	3	20	4	3	48
WWC-019	Bayshore Road	4	6	4	4	64
WWC-020	East 7 th Street	3	20	4	3	48
WWC-021	West H Street	2	28	4	2	32
WWC-022	El Bonito Way (gravity sewer)	3	20	3	3	36
WWC-023	Park Road Force Main	5	1	5	5	100
WWC-024	Ongoing Condition Assessment of the Wastewater Collection System	3	-	3	3	36

[1] Condition rating (1 & 2 green, 3 yellow, 4 & 5 red). Risk of failure (0-40 green, 41-59 yellow, 60-100 red).

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Update and Major Facility Condition Assessment June 2020
Proposed Updates 2025**

WASTEWATER COLLECTIONS

Proposed Updates to Stantec Proposed Projects – TM-12

Project Name	Project Number	Keep/Remove/ Adjust	Notes
181 East K St	WWC-001	Adjust	See notes below
El Bonito Way Force Main	WWC-002	Remove	Completed
Hillcrest Ave	WWC-003	Keep	Not a high priority
El-Ane Way	WWC-004	Adjust	See notes below
255 East O St/Wingfield Way	WWC-005	Keep	See notes below
500 East H St	WWC-006	Remove	Already part of 2025 pipe bursting plan
Jackson St	WWC-007	Adjust	See notes below
Polk St	WWC-008	Keep	Not a high priority
200 Block East L St	WWC-009	Adjust	See notes below
300 Block East L St	WWC-010	Keep	Not a high priority
Chelsea Hills Dr	WWC-011	Keep	Not a high priority
West 2 nd St/Military West	WWC-012	Remove	Not needed
375 Military east	WWC-013	Remove	See notes below
Clocktower	WWC-014	Remove	See notes
East 3 rd St/East S St	WWC-015	Remove	See Notes
East Channel Rd	WWC-016	Keep	Keep project as is
I-780 Crossing @ West 7 th St	WWC-017	Remove	See notes

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Rose Dr/London Circle	WWC-018	Remove	Not needed at this time
Bayshore Rd	WWC-019	Keep	Project already being assessed
East 7th St	WWC-020	Remove	Complete
West H St	WWC-021	Keep	See notes
El Bonito Way (Gravity Sewer)	WWC-022	Keep	Not high priority
Park Rd Force Main	WWC-023	Adjust	See notes below

Proposed Updates to Stantec Proposed Projects – TM – 12

- WWC-001 – Re-routing may not be a viable option due to elevations. Re-lining existing line may be sufficient and provides value as it is old and runs under James Lemos pool deck.
- WWC-003 – Pipe is in typical condition for 50-year-old clay pipe. Could stand to be lined, but not significantly worse condition than numerous other locations.
- WWC-004 – Installing 2 new sewer mains and re-routing all the private laterals may not be realistic. However, pipe is in poor condition and re-lining is needed.
- WWC-005 – CCTV video shows that pipe may have additional damage due to an Accessory Dwelling Unit built directly above it. Further investigation is required.
- WWC-007 – Don't see the necessity of upsizing the upstream portion of the pipe from MH330 to MH327, and MH327 to MH324 is already 8". MH324 to MH320 is damaged at various locations and upsizing to 10" while replacing has value.
- WWC-009 – Pipe should be re-lined with a manhole added at West 4th St for access.
- WWC-013 – CCTV footage shot on 3/17/25 indicates that the pipe is in relatively decent condition. The location of this main is not ideal, but there are no conditions that pose any immediate concerns.
- WWC-014 – Not enough use from the Clocktower or Jefferson Mansion to warrant assessment recommendation.
- WWC-015 – Due to the location of the schools' restrooms, the line cannot be completely removed from under school playing fields, which is the primary concern of the condition assessment. Re-routing it all requires a significantly larger project.
- WWC-017 – Don't see the value in increasing one section of pipe. Going from 8" to 12" back to 8".

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- WWC-021 – This pipe is going to be re-lined as part of the Shoreline Stabilization Project
- WWC-023 – This project would have value however, the Cleanout Installation project in the Proposed Project section is significantly more urgent, more feasible, and lessens the urgency for this project.

Proposed Projects to be Added

- Bayshore Rd 8” Crossover Abandonment
Permanently abandon the crossovers that connect the unused 8” force main to the active 12” force main on Bayshore Rd.
- Cleanout Installation on Bayshore Rd 12”/14” Force Main
 - Install multiple cleanouts/access points on 1.5 mile long 12”/14” force main from Park/Industrial lift station to the Port of Benicia. As currently constructed, if there is a blockage or some other issue in this sewer main, there is no way to access it, or even identify where the issue is.