



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant Director of Operations
Hannah Branning, Water Quality & Regulatory Compliance Manager
Mark Billman, EHS Program Manager

Title: **Resolution Approving an Agreement between the Town of Castle Rock and Burns & McDonnell for an Arc Flash Study [Entire Castle Rock Water Service Area]**

Executive Summary

Castle Rock Water (CRW) staff requests Town Council approval for a services agreement to conduct a comprehensive arc flash hazard and short-circuit study across all CRW electrical facilities with Burns & McDonnell Engineering for \$481,017, with a 5% Town-managed contingency of \$24,051, for a total authorization request of \$505,068 (**see Attachment A**). The study will be completed by December 28, 2026.

Arc flash and electrical shock hazards have long been known to pose significant risk in the workplace, potentially causing severe injuries or fatalities. CRW has been doing arc flash studies for new projects on an inconsistent basis and in many cases these studies have not been completed for older facilities. This study will bring all CRW's facilities up to current standards in accordance with National Fire Protection Association standard 70E and help reinforce CRW's commitment to developing and maintaining safe workplaces across all facilities regarding electrical safety. Arc flash studies typically are updated every five years. The scope for an update would be significantly lower in cost.

Notification and Outreach Efforts

No public outreach is planned. Work will be performed at various CRW facilities, out of the public eye, to conduct a CRW facility equipment worker health and safety assessment.

History of Past Town Council, Boards & Commissions, or Other Discussions

Castle Rock Water Commission was provided with a presentation on the Arc Flash Study at their January 28, 2026, meeting and voted unanimously 7 to 0 to recommend Town Council approval of the Resolution as presented.

Discussion

The purpose of this project is to collect data from electrical equipment across forty-nine (49) CRW sites, to provide individual short-circuit, arc flash hazard, and device coordination reports for each site in accordance with NFPA standard 70E. This data will be used by Burns & McDonnell Engineering to provide updated electrical one-line diagrams and arc flash and shock hazard labels put in place for each piece of equipment covered by the reports. The electrical one-line diagrams are not needed for the arc flash work but provide an additional benefit for the project as we have many old sites that do not have these diagrams. These diagrams are required for doing any major electrical work, troubleshooting or maintenance.

The CRW sites include:

- Five water treatment facilities
- Eleven pump stations
- Nine lift stations
- One surface water diversion site
- Twenty-three groundwater well sites.

CRW has updated our process so that an arc flash study and the resultant labeling is required for new electrical equipment going forward. Based on best practice, arc flash studies need to be updated every five years.

Through a competitive bid process, CRW solicited proposals from three qualified engineering firms; their proposal costs are shown below:

Vendor	Proposal
Burns & McDonnell Engineering	\$481,017
Logical Systems LLC	\$500,300
Tetra Tech	Declined to Bid

Staff selected Burns & McDonnell Engineering as they have a fully staffed, local electrical engineering team prepared to provide CRW with the best value and pricing to complete the work. Tetra Tech attended the pre-bid project walk, but declined to bid as they did not have adequate local electrical engineering staffing to complete the project.

Budget Impact

Funding for this project will come from the Water, Water Resources, and Wastewater Plant Engineering Services funds after a first-quarter budget amendment, as follows:

Fund Name	Account Number	Cost	Contingency	Balance after Budget Amendment
Water	210-4230-442.30-40	\$160,339	\$8,017	\$168,356
	211-4340-443.30-40	\$160,339	\$8,017	\$168,356
	213-4530-445.30-40	\$160,339	\$8,017	\$168,356
Total		\$481,017	\$24,051	\$505,068

There will be additional much smaller future costs to update the arc flash studies on a five-year basis.

Staff Recommendation

Staff recommends a services agreement with Burns & McDonnell Engineering for \$481,017, with a 5% Town-managed contingency of \$24,051, for a total authorization request of \$505,068.

Proposed Motion

“I move to approve the Resolution as introduced by title.”

Alternative Motions

“I move to approve the resolution as introduced by title, with the following conditions: (list conditions).”

“I move to continue this item to the Town Council meeting on _____ date to allow additional time to (list information needed).”

Attachments

Attachment A: Resolution
 Exhibit 1: Contract