

**City of Santa Fe  
Emergency Determination Form**



The emergency procurement method may only be used as described in NMSA 1978, § 13-1-127 and in the City's Procurement Manual XII.

**NOTE:**

Notify all signatories as soon as you are made aware of the emergency. Give them a brief synopsis of the emergency, answer their questions, and let them know this document and all supporting documents will be sent to them for signatures. They should know about the request prior to obtaining signatures.

The Department that makes an emergency procurement to plan or prepare for the response to a serious threat to public health, welfare, safety or property caused by a flood, fire, epidemic, riot, act of terrorism, equipment failure or similar event shall account for the money spent in making the procurement and report on that accounting to the City's Finance Department Director within ninety days after the end of the contract or fiscal year in which the procurement was made, whichever comes first.

**I. Department: Public Utilities\_\_, City of Santa Fe**

Department Director: \_\_John Dupuis\_\_

Department Contact: \_\_Mike Dozier\_\_

Department Telephone Number: \_\_505-955-4642\_\_

City of SF Chief Procurement Officer: **Travis Dutton-Leyda, CPO**

Telephone Number: **(505) 629-8351**

**II. Name of Contractor: Carollo Engineers, Inc.**

**Address of Contractor:** P. O. Box 30835, Salt Lake City, UT 84130-0835

**Amount of prospective contract:** \$64,092.00

**Term of prospective contract:** 1 year

**Location of Services:**

**III. Please thoroughly list the services (scope of work), construction or items of tangible personal property of the contract:**

Carollo will be providing engineering support to develop a supplementary disinfection approach using chlorine. A full scope of work is attached.

**IV. Provide an explanation for the justification of the procurement including a description of the emergency condition(s) requiring use of emergency procurement and the practicable competition utilized in compliance with NMSA 1978, § 13-1-127.**

The Paseo Real Wastewater Reclamation Facility has struggled with maintaining effective disinfection due to an aging UV system and water quality upsets at the facility. Development of a supplemental disinfection plan and system will allow the facility to maintain compliant disinfection during challenging water quality conditions.

**V. Please describe what measures are being taken to minimize the duration and effect of this particular emergency procurement (for example: is the emergency only in place until a competitive process can be completed, etc.).**

Previous work with Carollo has developed methods and actions to maintain maximal UV effectiveness and disinfection performance has improved. This investigation of supplemental disinfection methods is being pursued to provide more robust and reliable performance until a new, modern, effective UV disinfection system can be designed and installed.

**VI. Describe what measures the Department will take in the future to prevent/mitigate use of emergency procurement under similar circumstances.**

The Wastewater Management Division has an engineering design contract with HDR Engineers to design a modern, robust, and redundant UV disinfection system. Following design, a construction contract will be executed to install the new UV system. But this process will likely take 2 to 3 years to complete the UV system replacement.

**Certified by:**



**City Chief Procurement Officer, Travis Dutton-Leyda**

**Sep 25, 2023**

**Date**

**City Approval by:**



John Dupuis (Sep 22, 2023 12:48 MDT)

**Department Director, John Dupuis**

**Date**

**Sep 22, 2023**



Erin McSherry (Sep 22, 2023 17:08 MDT)

**City Attorney, Erin McSherry**

**Sep 22, 2023**

**Date**



John Blair (Sep 25, 2023 11:11 MDT)

**City Manager, John Blair**

**Sep 25, 2023**

**Date**



Emily K. Oster (Sep 25, 2023 13:28 MDT)

**Finance Director, Emily Oster**

**Sep 25, 2023**

**Date**

***Note: All emergencies must be posted to the SPD website:***

***<https://www.generalservices.state.nm.us/statepurchasing/submit-emergency.aspx>***

***and the City of Santa Fe's website:***

***<https://santafenm.gov/finance-2/purchasing-1/solicitations>***











# Emergency\_Determination\_Supplimental Disinfection Analysis


Final Audit Report

2023-09-25

Created:	2023-09-15
By:	Paul Heerbrandt (pfheerbrandt@ci.santa-fe.nm.us)
Status:	Signed
Transaction ID:	CBJCHBCAABAAesIX14BZpPD-rOzcloRxDVyWNLa1BBPm

## "Emergency\_Determination\_Supplimental Disinfection Analysis" History


-  Document created by Paul Heerbrandt (pfheerbrandt@ci.santa-fe.nm.us)  
2023-09-15 - 6:04:23 PM GMT
-  Document emailed to John Dupuis (jedupuis@santafenm.gov) for signature  
2023-09-15 - 6:05:25 PM GMT
-  Email viewed by John Dupuis (jedupuis@santafenm.gov)  
2023-09-22 - 6:47:57 PM GMT
-  Document e-signed by John Dupuis (jedupuis@santafenm.gov)  
Signature Date: 2023-09-22 - 6:48:22 PM GMT - Time Source: server
-  Document emailed to Erin McSherry (ekmcsherry@santafenm.gov) for signature  
2023-09-22 - 6:48:23 PM GMT
-  Email viewed by Erin McSherry (ekmcsherry@santafenm.gov)  
2023-09-22 - 10:56:08 PM GMT
-  Document e-signed by Erin McSherry (ekmcsherry@santafenm.gov)  
Signature Date: 2023-09-22 - 11:08:25 PM GMT - Time Source: server
-  Document emailed to jwblair@santafenm.gov for signature  
2023-09-22 - 11:08:26 PM GMT
-  Email viewed by jwblair@santafenm.gov  
2023-09-25 - 5:08:35 PM GMT
-  Signer jwblair@santafenm.gov entered name at signing as John Blair  
2023-09-25 - 5:11:31 PM GMT

 Document e-signed by John Blair (jwblair@santafenm.gov)

Signature Date: 2023-09-25 - 5:11:33 PM GMT - Time Source: server

 Document emailed to ekoster@santafenm.gov for signature

2023-09-25 - 5:11:34 PM GMT

 Email viewed by ekoster@santafenm.gov


2023-09-25 - 7:26:08 PM GMT

 Signer ekoster@santafenm.gov entered name at signing as Emily K. Oster

2023-09-25 - 7:28:11 PM GMT

 Document e-signed by Emily K. Oster (ekoster@santafenm.gov)


Signature Date: 2023-09-25 - 7:28:13 PM GMT - Time Source: server

 Document emailed to Travis Dutton-Leyda (tkduttonleyda@santafenm.gov) for signature

2023-09-25 - 7:28:14 PM GMT

 Email viewed by Travis Dutton-Leyda (tkduttonleyda@santafenm.gov)

2023-09-25 - 9:34:08 PM GMT

 Document e-signed by Travis Dutton-Leyda (tkduttonleyda@santafenm.gov)

Signature Date: 2023-09-25 - 9:34:43 PM GMT - Time Source: server

 Agreement completed.

2023-09-25 - 9:34:43 PM GMT



## **City of Santa Fe / Carollo Engineers, Inc. Corrective Action Plan for PRWRF Reclaimed Water Disinfection: Sodium Hypochlorite and Peracetic Acid Investigation**

Scope of Work  
September 2023

The City of Santa Fe (City) has requested Carollo assistance in developing and implementing an approach to regulatory compliance for wastewater discharge and recycled water use at the Paseo Real Water Reclamation Facility (PRWRF). The following scope describes initial tasks that Carollo will undertake to develop and document the recommended approach, as well as conduct water quality testing and develop recommendations for implementation.

### **Task 1 - Project Management**

- Manage project staffing, scope, schedule, and budget.
- Develop and submit a monthly progress report to accompany monthly invoices, summarizing project activity for the reporting month and identifying any scope, schedule, or budget issues and proposed resolution.

### **Task 2 – Regulatory Approach and Support**

- Develop a regulatory approach to support compliance with effluent discharge and recycled water requirements.
  - The approach will involve dosing sodium hypochlorite into secondary effluent ahead of the disc filters. Chlorine residual would be quenched via sodium bisulfite (SBS) chemical feed ahead of the re-aeration basin to support compliance with the NPDES permit discharge requirement for Total Residual Chlorine. The effort would likely be phased, initially involving manual dosing and sampling/analysis, followed by the implementation of online analyzers and automated chemical dosing control.
- Document the proposed approach in a single letter to the U.S. Environmental Protection Agency (USEPA) Region 6 and New Mexico Environment Department (NMED).

### **Assumptions**

- Carollo will participate in up to 3 regulatory support meetings, with remote participation from Carollo.
- Approach will include a sampling plan for bacteria and chlorine residual; any sampling and analysis for this task will be conducted by the City or others outside this scope of work.

- No design efforts are included in this task.

#### Deliverables

- Regulatory approach letter to USEPA/NMED (draft and final, submitted electronically).

### **Task 3 – Water ARC® Testing**

- Conduct testing in parallel to Task 2 to better define the engineering aspects of the sodium hypochlorite system. The testing will provide additional information about the sodium hypochlorite dose and contact time needed to achieve regulatory compliance, as well as the SBS dose needed to quench chlorine residual remaining before the re-aeration basins. This testing will define the starting point for the manual chemical dosing approach.

#### Assumptions

- 3 **secondary effluent** samples will be collected by City staff over a 2-week period. For each sample, the following tests will be conducted at Carollo's Water ARC® laboratory:
  - Baseline water quality
  - Chlorine demand/decay tests – 3 contact times and 3 dose set points per sample (9 total runs per sample). For each of these runs, chlorine quenching will also be performed to determine SBS dose necessary for non-detect total chlorine.
- One set of disinfection dose-response testing will be conducted on one of the samples. This will involve 3 chlorine doses and 3 contact times (9 total runs) to evaluate dose-response for E. coli and fecal coliform.
- City staff will be responsible for collecting secondary effluent samples and shipping them to Water ARC®.

#### Deliverables

- Summary of testing results, incorporated into Task 4, below.

### **Task 4 – Full Scale Recommendations**

- Develop recommendations to implement the proposed chlorination/dechlorination approach based on the results of the testing from Task 3.
- Recommendations will include (1) manual set points for sodium hypochlorite and SBS dosing, (2) water quality measurement devices needed to implement the manual dosing approach, and (3) approach for future automation of monitoring and chemical dosing.

#### Assumptions

- Analysis will include a review of potential corrosion/warranty issues on the disc filter components.

- No detailed analysis of chlorine contact time will be conducted as part of this evaluation.

#### Deliverables

- Full scale recommendations technical memorandum (draft and final, submitted electronically).

### **Task 5 – Peracetic Acid Conceptual Review**

- Provide an overview of Peracetic Acid (PAA) as an alternative to sodium hypochlorite as a supplemental disinfection approach, drawing from Carollo's industry experience with other water reclamation facilities.
- Identify and characterize benefits and potential implementation and operational challenges associated with using PAA for disinfection.
- Provide a brief written summary of findings and recommendations.

#### Assumptions

- No analytical work will be conducted for PAA dosing will be conducted under this scope of work.
- PAA systems will not be costed under this scope of work.

#### Deliverables

- Brief written summary of findings and recommendations.

### **Task 6 – As-Directed Support**

- Provide additional support as needed.

#### Assumptions

- Work under this task will be conducted as mutually agreed to by the City Project Manager and Carollo Project Manager, up to the budgetary limit established for this task.

#### Deliverables

- To be identified as appropriate to the work conducted under this task.

### **Project Schedule**

The Project will be conducted and completed in two months or as schedule needs and budget availability dictate for services under Task 6.



### **Project Assumption**

Work will be conducted subject to the terms of Carollo's Professional Services Agreement for On-Call Water Engineering Services, and terms of that agreement take precedence over the terms of the purchase order associated with this work.

### **Project Budget**

The project will be completed for a not-to-exceed budget of \$59,173, exclusive of New Mexico Gross Receipts Tax.

### **Approved:**

---

John Dupuis  
Utilities Director  
City of Santa Fe

---

Date

---

John Rehring  
Vice President  
Carollo Engineers, Inc.

---

Date

---

Andrew Salveson  
Vice President  
Carollo Engineers, Inc.

---

Date

## Exhibit A

### Labor and Budget Estimate

CITY OF SANTA FE Corrective Action Plan for PRWRF Reclaimed Water Disinfection: Sodium Hypochlorite Investigation Estimated Effort and Fee   September 2023		CAROLLO DIRECT LABOR											CAROLLO DIRECT EXPENSES			TOTAL COST (EXCL. NMGR)	
LINE	DESCRIPTION	SENIOR SPEC'LST  (Hours)	SENIOR PROF  (Hours)	LEAD PROJECT PROF  (Hours)	PROJECT PROF  (Hours)	PROF  (Hours)	ASST PROF II  (Hours)	ASST PROF I  (Hours)	SENIOR TECH  (Hours)	TECH  (Hours)	DOC PRO & CLER  (Hours)	TOTAL LABOR HOURS	TOTAL LABOR COSTS	TRAVEL & OTHER DIRECT COSTS	PECE ON CAROLLO DL Hrs		TOTAL ODC's
	<b>Task 1 Project Management</b>	\$273	\$251	\$223	\$202	\$185	\$160	\$150	\$188	\$151	\$115				\$14.00		
1.1	Project Management	4			8							12	\$2,708	\$0	\$168	\$168	\$2,876
	<b>Task 2 Regulatory Approach and Support</b>																
2.1	Regulatory approach letter	8			16						2	26	\$5,646	\$0	\$364	\$364	\$6,010
2.2	Participation in up to 3 regulatory meetings (remote)	6			12							18	\$4,062	\$0	\$252	\$252	\$4,314
	<b>Task 3 Water ARC® Testing</b>																
3.1	Secondary effluent testing				8							8	\$1,616	\$14,259	\$112	\$14,371	\$15,987
	<b>Task 4 Full Scale Recommendations</b>																
4.1	Full scale recommendations technical memo	10			30						4	44	\$9,250	\$0	\$616	\$616	\$9,866
	<b>Task 5 Peracetic Acid Conceptual Review</b>																
5.1	PAA conceptual review - compile info from reference installations	8			8							16	\$3,800	\$0	\$224	\$224	\$4,024
	PAA conceptual review - identify/characterize benefits/challenges	8			4							12	\$2,992	\$0	\$168	\$168	\$3,160
	PAA conceptual review - brief written summary	4			8							12	\$2,708	\$0	\$168	\$168	\$2,876
	<b>Task 6 As-Directed Support</b>																
6.1	As-directed support	20			20							40	\$9,500	\$0	\$560	\$560	\$10,060
	<b>TOTAL SERVICES: LABOR HOURS</b>	68	0	0	114	0	0	0	0	0	6	188					
	<b>TOTAL COST OF SERVICES (EXCLUDING NMGR)</b>	\$18,564	\$0	\$0	\$23,028	\$0	\$0	\$0	\$0	\$0	\$690		\$42,282	\$14,259	\$2,632	\$16,891	\$59,173
	<b>NMGR at 0.083125</b>																\$4,919
	<b>TOTAL COST OF SERVICES (INCLUDING NMGR)</b>																\$64,092