

METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI

**Project ID 10142910
Ludlow Run Sustainable Source Control
Contract 95x12762**

Progress Report for
Professional Services provided October 30, 2023 through November 26, 2023

Arcadis U.S., Inc.

At the request of the Metropolitan Sewer District of Greater Cincinnati, Arcadis worked on the following items as summarized below.

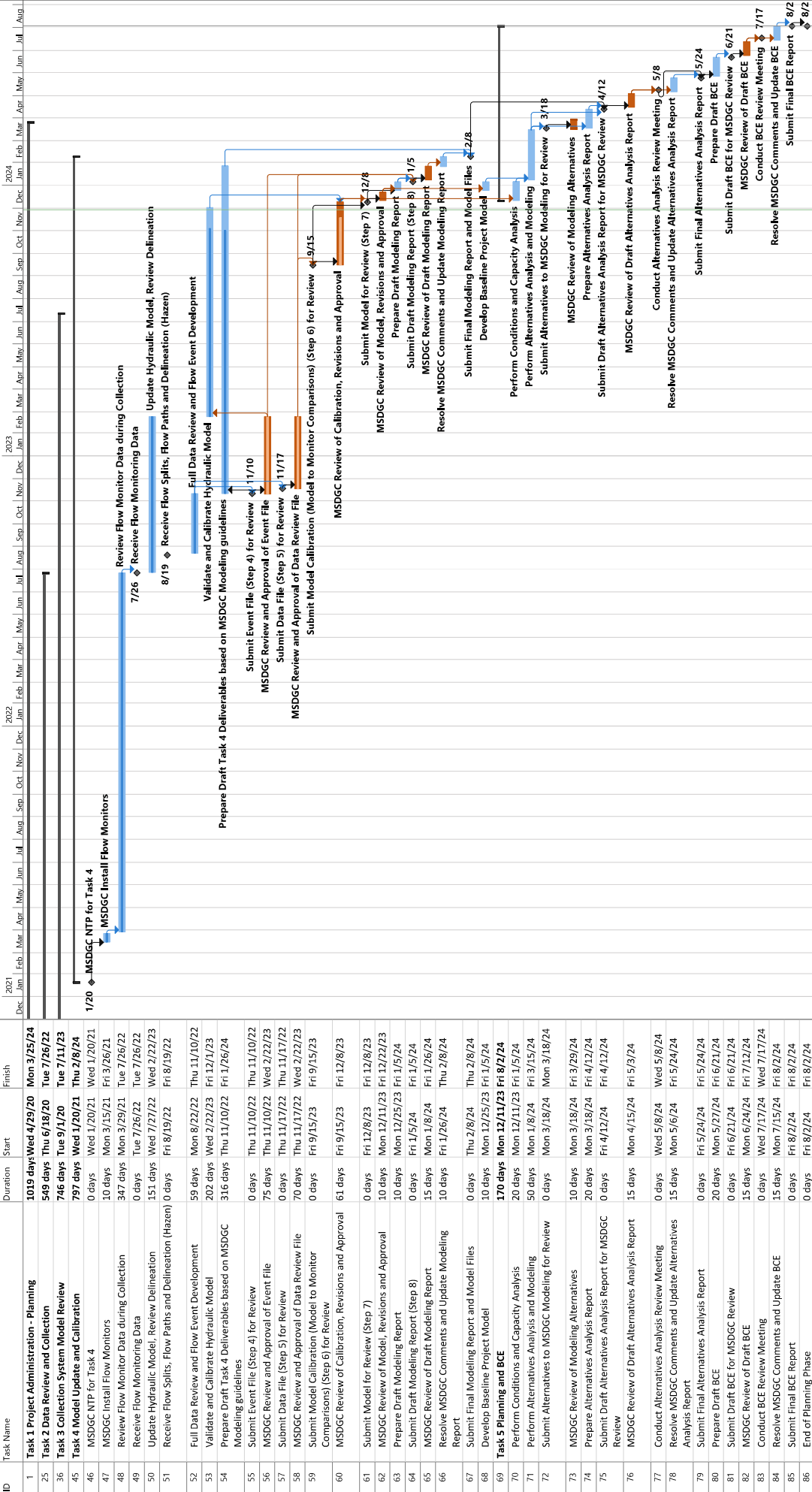
Task 1 Project Administration - Planning

- Performed project administration and resource management; communicated updates to MSDGC project manager.
- Updated Schedule

Task 4 Model Update and Calibration

- Addressed comments and performed calibration updates
- Re-Submitted Calibrations for following monitors in mid-November:
 - Submodels:
 - Ludlow 007/008/010
 - Ludlow 009
 - Ludlow 074/075/075
 - Ludlow 017
 - Ludlow 011/012
 - Ludlow 025

10142910 Ludlow Run Sustainable Source Control



ID	Task Name	Start	Finish	Duration
1	Task 1 Project Administration - Planning	Wed 4/29/20	Mon 3/25/24	1019 days
25	Task 2 Data Review and Collection	Thu 6/18/20	Tue 7/26/22	549 days
36	Task 3 Collection System Model Review	Tue 9/1/20	Tue 7/11/23	746 days
45	Task 4 Model Update and Calibration	Wed 1/20/21	Thu 2/8/24	797 days
46	MSDGC NTP for Task 4	Wed 1/20/21	Wed 1/20/21	0 days
47	MSDGC Install Flow Monitors	Mon 3/15/21	Fri 3/26/21	10 days
48	Review Flow Monitor Data during Collection	Mon 3/29/21	Tue 7/26/22	347 days
49	Receive Flow Monitoring Data	Tue 7/26/22	Tue 7/26/22	0 days
50	Update Hydraulic Model, Review Delineation	Wed 7/27/22	Wed 2/22/23	151 days
51	Receive Flow Splits, Flow Paths and Delineation (Hazen)	Fri 8/19/22	Fri 8/19/22	0 days
52	Full Data Review and Flow Event Development	Mon 8/22/22	Thu 11/10/22	59 days
53	Validate and Calibrate Hydraulic Model	Wed 2/22/23	Fri 12/1/23	202 days
54	Prepare Draft Task 4 Deliverables based on MSDGC Modeling Guidelines	Thu 11/10/22	Fri 1/26/24	316 days
55	Submit Event File (Step 4) for Review	Thu 11/10/22	Thu 11/10/22	0 days
56	MSDGC Review and Approval of Event File	Thu 11/10/22	Wed 2/22/23	75 days
57	Submit Data File (Step 5) for Review	Thu 11/17/22	Thu 11/17/22	0 days
58	MSDGC Review and Approval of Data Review File	Thu 11/17/22	Wed 2/22/23	70 days
59	Submit Model Calibration (Model to Monitor Comparisons) (Step 6) for Review	Fri 9/15/23	Fri 9/15/23	0 days
60	MSDGC Review of Calibration, Revisions and Approval	Fri 9/15/23	Fri 12/8/23	61 days
61	Submit Model for Review (Step 7)	Fri 12/8/23	Fri 12/8/23	0 days
62	MSDGC Review of Model, Revisions and Approval	Mon 12/11/23	Fri 12/22/23	10 days
63	Prepare Draft Modeling Report	Mon 12/25/23	Fri 1/5/24	10 days
64	Submit Draft Modeling Report (Step 8)	Fri 1/5/24	Fri 1/5/24	0 days
65	MSDGC Review of Draft Modeling Report	Mon 1/8/24	Fri 1/26/24	15 days
66	Resolve MSDGC Comments and Update Modeling Report	Fri 1/26/24	Thu 2/8/24	10 days
67	Submit Final Modeling Report and Model Files	Thu 2/8/24	Thu 2/8/24	0 days
68	Develop Baseline Project Model	Mon 12/25/23	Fri 1/5/24	10 days
69	Task 5 Planning and BCE	Mon 12/11/23	Fri 8/2/24	170 days
70	Perform Conditions and Capacity Analysis	Mon 12/11/23	Fri 1/5/24	20 days
71	Perform Alternatives Analysis and Modeling	Mon 1/8/24	Fri 3/15/24	50 days
72	Submit Alternatives to MSDGC Modeling for Review	Mon 3/18/24	Mon 3/18/24	0 days
73	MSDGC Review of Modeling Alternatives	Mon 3/18/24	Fri 3/29/24	10 days
74	Prepare Alternatives Analysis Report	Mon 3/18/24	Fri 4/12/24	20 days
75	Submit Draft Alternatives Analysis Report for MSDGC Review	Fri 4/12/24	Fri 4/12/24	0 days
76	MSDGC Review of Draft Alternatives Analysis Report	Mon 4/15/24	Fri 5/3/24	15 days
77	Conduct Alternatives Analysis Review Meeting	Wed 5/8/24	Wed 5/8/24	0 days
78	Resolve MSDGC Comments and Update Alternatives Analysis Report	Mon 5/6/24	Fri 5/24/24	15 days
79	Submit Final Alternatives Analysis Report	Fri 5/24/24	Fri 5/24/24	0 days
80	Prepare Draft BCE	Mon 5/27/24	Fri 6/21/24	20 days
81	Submit Draft BCE for MSDGC Review	Fri 6/21/24	Fri 6/21/24	0 days
82	MSDGC Review of Draft BCE	Mon 6/24/24	Wed 7/12/24	15 days
83	Conduct BCE Review Meeting	Wed 7/17/24	Fri 8/2/24	0 days
84	Resolve MSDGC Comments and Update BCE	Mon 7/15/24	Fri 8/2/24	15 days
85	Submit Final BCE Report	Fri 8/2/24	Fri 8/2/24	0 days
86	End of Planning Phase	Fri 8/2/24	Fri 8/2/24	0 days

MSDGC
Date: Wed 11/29/23

Legend:

- Task
- Split
- Milestone
- Summary
- Project Summary
- Inactive Task
- Inactive Milestone
- Inactive Summary
- Manual Task
- Duration-only
- Manual Summary Rollup
- Manual Summary
- Start-only
- Finish-only
- External Tasks
- External Milestone
- Deadline
- Progress
- Manual Progress

INVOICE

Metropolitan Sewer District of Greater Cincinnati, OH

Attn. : Alex Shumakh
 1600 Gest St
 Cincinnati, OH 45204-2022
 United States

Arcadis U.S., Inc.
 Bank of America
 Acct: 8188093937
 ACH: 071 000 039 Wire: 026009
 593
 SWIFT: BOFAUS3N
 Remit-mailbox@arcadis-us.com
 62638 Collections Center Drive
 Chicago, IL 60693-0626

Invoice Date	11-Dec-2023	Invoice Number	34405639
Due Date	10-Jan-2024	Payment Term	30 days
Contract 95x12762, Funding: 704x400x0000x7681, Proj 10142910 Uploaded to E-Builder System			
Arcadis Reference Number	30030534	Project Number	30030534
Arcadis Reference Name	MSDGC: Ludlow Run Sustainable Source Control	Project Name	MSDGC: Ludlow Run Sustainable
Arcadis Reference Description	Ludlow Run Sustainable Source Control	Project Manager	Kristen Krzak
Services Through	26-Nov-2023	Client Contact	Alex Shumakh

Professional Services to 26-Nov-2023

Total Contract Value	526,651.00	
Services Billed Previously	326,569.91	62.01% Billed Previously
Services Billed This Invoice	<u>10,947.61</u>	2.08% Billed This Invoice
Total Services To Date	<u>337,517.52</u>	64.09% Billed To Date
Amount Remaining	189,133.48	

Total This Invoice 10,947.61 USD

Bank Name	BANK OF AMERICA N.A.	Bank/Branch Code	BOFA-071923284
Account No.	8188093937	SWIFT	BOFAUS3N
Remittance Address: Remit-Mailbox@arcadis-us.com			
Please include the invoice number on all payments and include remittance copy with all postal payments. Late payments will be assessed according to contract terms.			