

Modeling SARS-CoV-2 RNA Degradation in Small and Large Sewersheds

¹Camille McCall, ²Zheng N. Fang, ²Dongfeng Li, ²Andrew J. Czubai, ¹Andrew Juan, ¹Zachary LaTurner, ³Katherine Ensor, ^{3,4}Loren Hopkins, ¹Phil Bedient, ^{*1}Lauren B. Stadler

¹ Department of Civil and Environmental Engineering, Rice University, Houston, TX, 77005

² Department of Civil Engineering, The University of Texas at Arlington, Arlington, TX, 76019

³ Department of Statistics, Rice University, Houston, TX, 77005

⁴ Houston Health Department, 8000 N. Stadium Dr., Houston, TX, 77054

^{*}Corresponding Author: Lauren Stadler

Mailing address:

6100 Main Street, MS-519

Houston, TX 77005

Email: lauren.stadler@rice.edu

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Supporting Information

Table S1. Characteristics of the ten sewersheds included in this study. Flow rates represent the average daily flow rate under dry conditions for the respective sewershed.

Sewersheds	69th Steet	Southwest	Sims Bayou	Northwest	FWSD#23	Turkey Creek	Beltway	Greenridge	Chocolate Bayou
Service Area (km ²)	274.00	98.50	96.20	58.10	26.70	22.60	22.50	17.00	15.80
Pipeline Length (km)	620.00	218.78	198.00	125.00	55.00	48.00	43.00	37.00	62.00
Service Population	478,984	272,566	19,143	72,500	6,595	5,588	54,864	4,177	4,225
Flow rate (liters/day)	3.22E+08	1.09E+08	6.91E+07	3.32E+07	1.17E+07	2.17E+07	1.40E+07	1.23E+07	1.05E+07

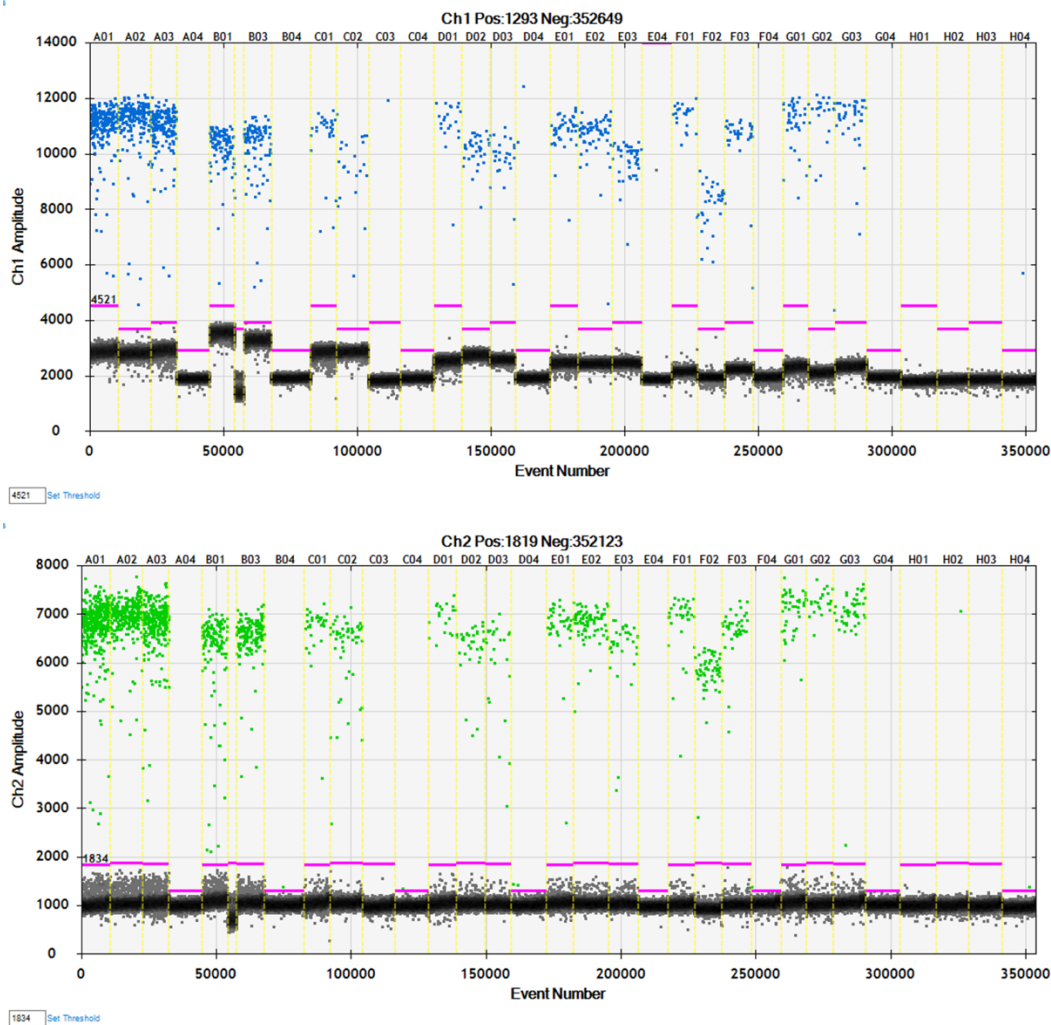


Figure S1. Representative 1-D plots of digital droplet PCR assays of SARS-CoV-2 N2 positive droplets (blue, top plot) and N1 positive droplets (green, bottom plot) from wastewater samples. Pink lines represent the threshold. Bottom gray clusters in each plot represent negative droplets.

Table S2. Summary of ddPCR droplet statistics for SARS-CoV-2 N1/N2 decay study.

Parameter	
No. of Wells Merged	0
Minimum Accepted Droplets	10,000
Average Accepted Droplets	Mean: 11,061 Standard deviation: 1,925
Droplet Volume	0.86 nL

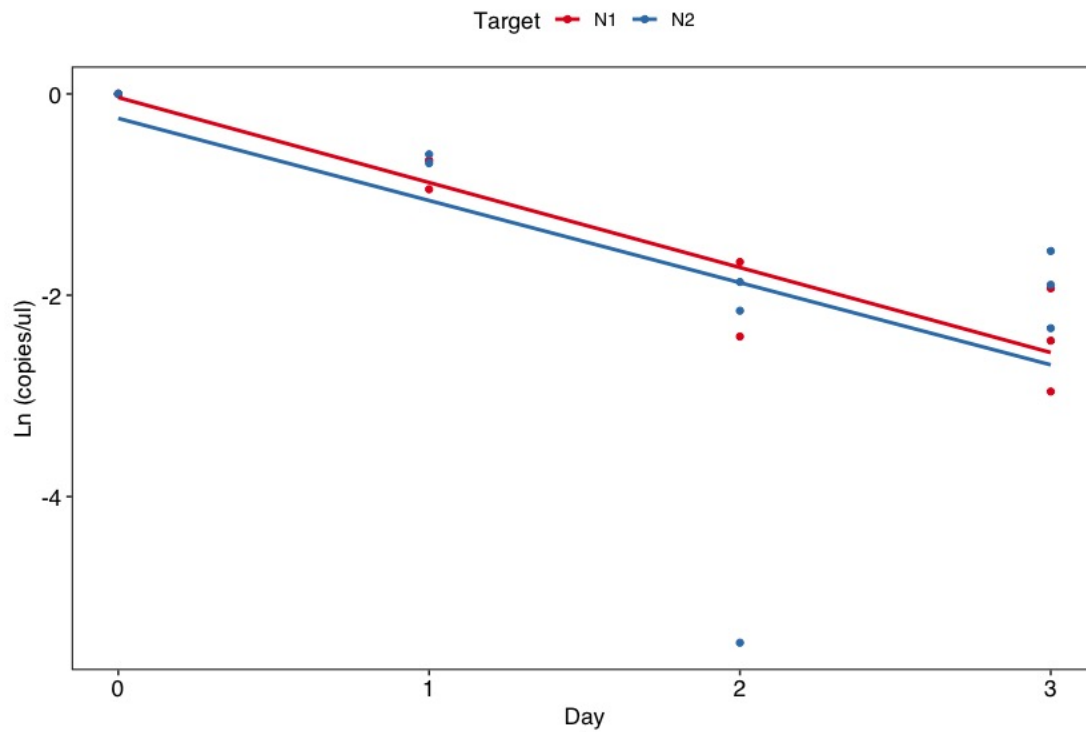


Figure S2. Linear regression lines for first-order decay of SARS-CoV-2 RNA for N1 and N2 gene targets.

Table S3. Summary of linear regression model for first-order decay of SARS-CoV-2 N1 and N2 gene targets.

Target	k	SE	r^2	P
N1	-0.84	0.10	0.90	0.00
N2	-0.82	0.34	0.39	0.04