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**To:** City of Des Moines, WA  
**From:** The Concord Group  
**Date:** July 24, 2023  
**Re:** Economic Impact Analysis for the June 2023 Business Shutdown in the Downtown Water District of Des Moines, WA

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### **Background and Objectives:**

We understand that between June 17<sup>th</sup> and June 24<sup>th</sup> there was a boil water alert and mandatory shutdown of select businesses due to a positive E.coli test in King County's Water District 54, which includes all of Downtown Des Moines, Washington. The City of Des Moines is seeking to assess the economic impact of this event on the +/- 90 businesses within the District. Notably, the time frame in question includes Father's Day weekend, which is historically a busy retail time. Impacted businesses included restaurants, salons, medical facilities, office spaces, and hotels.

Given the above, The Concord Group ("TCG") analyzed the rough-order-of-magnitude economic impact of the boil water alert and shutdown on the affected businesses in the District. This included an assessment of potential lost revenues to the businesses (including direct, indirect, and induced impacts) as well as potential lost wages for hourly employees at the businesses. We interviewed select businesses in the District to better understand how they were impacted, and utilized information from these interviews, our conversations with City officials, and from third-party sources to inform our analysis.

The following represents our summarized findings, including our concluded impacts, as well as discussions regarding our methodology and assumptions. Supporting documents can be found in the Appendix.

### **Assessment Area Definition:**

The City of Des Moines, WA, is situated in King County on the eastern shore of the Puget Sound, south of Seattle. Water District 54's service area is centrally located in downtown Des Moines, encompassing the densest retail area within the city. The serviced area is bounded by Normandy Park to the north, 13th Ave to the east, Kent Des Moines Road to the south, and the Puget Sound to the west. For a more detailed map, please refer to Appendix 1.

Within the impacted area, there are 85 potentially affected businesses, per the City of Des Moines. These businesses represent just over 241,000 square feet of commercial space, and include restaurants (27), salons (14), specialty stores (9), medical offices (7), financial service offices (5), banks (4), and other various businesses. Appendix 2 details the location of these businesses, and Appendix 3 provides a detailed list of the businesses that were used for our analysis.

### **Conclusions:**

TCG analyzed four scenarios, as detailed below:

Scenario 1a: Assumes all businesses were fully impacted, with lingering impacts for a week afterwards

Scenario 1b: Assumes all businesses were fully impacted, with no lingering impacts

Scenario 2a: Assumes impacts to businesses varied by industry type, with lingering impacts for a week afterwards

Scenario 2b: Assumes impacts to businesses varied by industry type, with no lingering impacts

**Table 1: Scenario Description**

Scenario	Shutdown			Post-Shutdown Impact		
	Impacted	% Impacted	Days Impacted	Lingering Impacts	% Impacted	Days Impacted
1a	All Businesses	100%	7	Yes	30%	7
1b	All Businesses	100%	7	No	0%	0
2a	Varied by Type	Varied by Type	7	Yes	30%	7
2b	Varied by Type	Varied by Type	7	No	0%	0

Based on our analysis, we found that the impact of the boil water notice and shutdown led to potential lost revenue of between \$2.7 million and \$5.1 million in total for the impacted businesses (direct impacts) and the local economy (indirect and induced impacts), with lost wages of between \$316,000 and \$458,000.

The following details the assessed impact by scenario:

**Table 2: Economic Impacts Summary**

Scenario	Lost Revenue			Lost Wages
	Direct	Indirect/ Induced	Total	Total
1a	\$2,553,000	\$2,552,000	\$5,105,000	\$458,000
1b	\$1,990,000	\$1,989,000	\$3,979,000	\$458,000
2a	\$1,681,000	\$1,710,000	\$3,391,000	\$316,000
2b	\$1,316,000	\$1,339,000	\$2,655,000	\$316,000

**Methodology Summary:**

The following methodology section will focus on the economic impact of scenario 1a. The methodology for each scenario is consistent, and detailed tables and charts for all scenarios can be found in Appendices 5 through 7.

Key Assumptions:

To determine the lost business revenue resulting from the shutdown, TCG requested a comprehensive list of businesses within the impacted area from the City of Des Moines. The impacted area comprises 85 businesses, which TCG further categorized into different industry types. Additionally, the City provided square feet assumptions for each building, which we then verified by tenant. In order to calculate the lost revenue, TCG had to establish key assumptions for each industry type, specifically pertaining to revenue that would be lost during the shutdown.

The calculations for lost revenue required TCG to make assumptions in the following categories, based on industry type, key sources are listed in parentheses:

- Sales Per Square Foot (ICSC, TCG)
- Number of Days Impacted (City of Des Moines)
- Percentage of Business Impacted (TCG)
- Impact on Sales Due to Father's Day (Interviews, surveys, TCG)
- Lingering Impact After Reopening (Interviews, TCG)

Furthermore, to compute the lost wages, TCG had to make assumptions in the following categories, also segmented by industry type:

- Square Feet per Employee (Various)
- Hourly Wages (BLS)
- Percentage of Hourly Workers (TCG)
- Average Shift Length (TCG)
- Number of Days Impacted (City of Des Moines)
- Percentage of Workforce Impacted (TCG)
- Impact on Wages Due to Father's Day (Interviews, TCG)

Loss of Business Revenue Calculation:

To calculate the lost business revenue, TCG categorized the 85 businesses into 20 different industry types. For each business type, TCG first determined the total square feet by summing the tenant spaces provided by the City of Des Moines. Using the sales per square foot assumption, adjusted to a daily rate, TCG then multiplied it by the total building space, the number of days impacted, and the percentage of business affected, resulting in the calculation of lost revenue for each industry segment.

Considering that it was Father's Day weekend, which typically brings about additional revenue, TCG factored in a Father's Day uplift (this uplift was assumed for the two days of the weekend). Recognizing that certain industries would experience a higher uplift, such as restaurants due to celebrations, TCG also acknowledged that other businesses would benefit from increased traffic in the area, such as gas stations and grocery stores.

Similarly, TCG took into account that although businesses like financial service shops were likely not directly impacted by the water shutoff, their location in the affected area may have deterred consumers from shopping or using these services.

The business revenue model for scenario 1a is presented in Table 3 below.

**Table 3: Lost Business Revenue**

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Revenue	Father's Day Uplift		Adjusted Lost Revenue
		Average	Total	Annual	Daily	Days	%		%	Nominal	
Restaurants	23	2,958	68,031	\$578	\$1.58	7	100%	\$753,468	40%	\$86,111	\$839,578
Coffee Shop	1	560	560	\$633	\$1.73	7	100%	\$6,793	20%	\$388	\$7,181
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	100%	\$136,272	10%	\$3,893	\$140,165
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	100%	\$113,664	20%	\$6,495	\$120,159
Medical	7	2,463	17,242	\$495	\$1.36	7	100%	\$163,682	0%	\$0	\$163,682
Grocery	1	500	500	\$550	\$1.51	7	100%	\$5,274	40%	\$603	\$5,877
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	100%	\$66,051	25%	\$4,718	\$70,769
Hotel	1	20,241	20,241	\$88	\$0.24	7	100%	\$34,160	25%	\$2,440	\$36,600
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	100%	\$89,553	0%	\$0	\$89,553
Bar	1	1,497	1,497	\$605	\$1.66	7	100%	\$17,374	40%	\$1,986	\$19,359
Child Care	1	4,004	4,004	\$440	\$1.21	7	100%	\$33,787	0%	\$0	\$33,787
Entertainment	1	2,769	2,769	\$165	\$0.45	7	100%	\$8,761	40%	\$1,001	\$9,762
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	100%	\$33,129	0%	\$0	\$33,129
Car Wash	1	1,747	1,747	\$495	\$1.36	7	100%	\$16,588	10%	\$474	\$17,062
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	100%	\$75,338	10%	\$2,153	\$77,490
Bank	4	3,602	14,407	\$330	\$0.90	7	100%	\$91,177	0%	\$0	\$91,177
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	100%	\$127,480	0%	\$0	\$127,480
Financial Services	5	1,562	7,810	\$330	\$0.90	7	100%	\$49,428	0%	\$0	\$49,428
Gas Station	2	2,521	5,042	\$550	\$1.51	7	100%	\$53,178	10%	\$1,519	\$54,697
Other Business	1	450	450	\$330	\$0.90	7	100%	\$2,848	0%	\$0	\$2,848
<b>Total</b>	<b>85</b>							<b>\$1,878,002</b>		<b>\$111,781</b>	<b>\$1,989,783</b>

Impacts Post Shutdown:

TCG modeled out different scenarios taking into consideration that there could be potential lingering impacts for businesses after the boil water notice and shutdown were lifted. For example, following the shutdown, consumers might avoid restaurants or businesses located in the previously affected area for an extended period to ensure safety, despite the restoration of normal conditions. Additionally, it might take a while for consumer shopping habits to return to pre-shutdown levels. In scenario 1a, TCG estimated that businesses could continue to be impacted by up to 30% for an additional week after the reopening.

The post-shutdown lingering impact model for scenario 1a is presented in Table 4 below:

**Table 4: Post Shutdown Impact**

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Reven
		Average	Total	Annual	Daily	Days	%	
Restaurants	23	2,958	68,031	\$578	\$1.58	7	30%	\$226,040
Coffee Shop	1	560	560	\$633	\$1.73	7	30%	\$2,038
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	30%	\$40,882
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	30%	\$34,099
Medical	7	2,463	17,242	\$495	\$1.36	7	30%	\$49,105
Grocery	1	500	500	\$550	\$1.51	7	30%	\$1,582
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	30%	\$19,815
Hotel	1	20,241	20,241	\$88	\$0.24	7	30%	\$10,248
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	30%	\$26,866
Bar	1	1,497	1,497	\$605	\$1.66	7	30%	\$5,212
Child Care	1	4,004	4,004	\$440	\$1.21	7	30%	\$10,136
Entertainment	1	2,769	2,769	\$165	\$0.45	7	30%	\$2,628
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	30%	\$9,939
Car Wash	1	1,747	1,747	\$495	\$1.36	7	30%	\$4,976
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	30%	\$22,601
Bank	4	3,602	14,407	\$330	\$0.90	7	30%	\$27,353
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	30%	\$38,244
Financial Services	5	1,562	7,810	\$330	\$0.90	7	30%	\$14,828
Gas Station	2	2,521	5,042	\$550	\$1.51	7	30%	\$15,953
Other Business	1	450	450	\$330	\$0.90	7	30%	\$854
<b>Total</b>	<b>85</b>							<b>\$563,401</b>

Lost Wages:

TCG also assessed the economic impact of lost wages for hourly staff at the affected businesses. The majority of workers in these establishments earn hourly wages rather than being salaried employees, and therefore may have lost wages for the week of the shutdown. We assume that the shutdown impact wages and tips for certain industries such as restaurants, especially during a busy weekend like Father's Day.

To calculate the number of affected employees, TCG used the total building space divided by the square foot per employee assumption. Subsequently, TCG determined the lost wages by multiplying the total employee count by the hourly wage, percentage of hourly workers per industry, average shift length, number of days impacted, and percentage of the business affected.

Similarly to the business revenue model, TCG accounted for a Father's Day uplift, which further influenced the total lost wages resulting from the shutdown for select industries.

The lost wage model for scenario 1a is presented below in Table 5 below:

**Table 5: Lost Wages**

Business Type	Count	Building Space		Employee Count		Wages		Shift Length	Impacted		Lost Wages	Fathers's Day Uplift		Adjusted Lost Wages
		Average	Total	SF/Employee	Employees	Hourly	% Hourly Workers		Days	%		%	Nominal	
Restaurants	23	2,958	68,031	300	227	\$18.02	80%	8	7	100%	\$183,071	40%	\$20,922	\$203,993
Coffee Shop	1	560	560	300	2	\$18.02	80%	8	7	100%	\$1,507	20%	\$86	\$1,593
Specialty Store	9	1,794	16,149	450	36	\$18.02	80%	8	7	100%	\$28,971	0%	\$0	\$28,971
Salon/Barber/Nail	14	1,399	19,593	450	44	\$20.27	80%	8	7	100%	\$39,538	20%	\$2,259	\$41,797
Medical	7	2,463	17,242	300	57	\$19.24	50%	8	7	100%	\$30,962	0%	\$0	\$30,962
Grocery	1	500	500	700	1	\$20.27	75%	8	7	100%	\$608	0%	\$0	\$608
Dollar Store	1	15,655	15,655	700	22	\$20.27	75%	8	7	100%	\$19,040	0%	\$0	\$19,040
Hotel	1	20,241	20,241	1,800	11	\$18.02	75%	8	7	100%	\$8,511	0%	\$0	\$8,511
Sea Life/Animal Hospital	2	4,717	9,433	300	31	\$19.24	50%	8	7	100%	\$16,940	0%	\$0	\$16,940
Bar	1	1,497	1,497	450	3	\$18.02	75%	8	7	100%	\$2,518	40%	\$288	\$2,806
Child Care	1	4,004	4,004	450	9	\$19.24	25%	8	7	100%	\$2,397	0%	\$0	\$2,397
Entertainment	1	2,769	2,769	450	6	\$18.02	75%	8	7	100%	\$4,656	0%	\$0	\$4,656
Laundry/Cleaners	3	1,309	3,926	450	9	\$20.27	75%	8	7	100%	\$7,427	0%	\$0	\$7,427
Car Wash	1	1,747	1,747	450	4	\$20.27	75%	8	7	100%	\$3,306	5%	\$47	\$3,353
Health/Wellness	3	3,968	11,904	450	26	\$20.27	80%	8	7	100%	\$24,022	0%	\$0	\$24,022
Bank	4	3,602	14,407	300	48	\$41.34	10%	8	7	100%	\$11,117	0%	\$0	\$11,117
Market/Pharmacy	4	5,036	20,143	500	40	\$20.27	80%	8	7	100%	\$36,584	0%	\$0	\$36,584
Financial Services	5	1,562	7,810	300	26	\$24.18	10%	8	7	100%	\$3,525	0%	\$0	\$3,525
Gas Station	2	2,521	5,042	500	10	\$20.27	80%	8	7	100%	\$9,156	0%	\$0	\$9,156
Other Business	1	450	450	300	2	\$20.27	50%	8	7	100%	\$851	0%	\$0	\$851
											<b>\$434,708</b>		<b>\$23,603</b>	<b>\$458,311</b>

**Indirect and Induced Impacts:**

The analysis above focuses on the direct economic impacts on business revenues and wages resulting from the shutdown in the impacted area. However, it's essential to consider additional economic impacts, known as indirect and induced impacts, that occur as a ripple effect from the lost revenues and wages. For instance, when a restaurant shuts down, it affects logistics and food service companies that supply them, as well as companies providing cleaning products or services. These companies, in turn, have further implications on other businesses, such as gas stations, car services, and so on, creating a cascading effect throughout the local economy.

To calculate the indirect and induced economic effects resulting from the shutdown, TCG utilized the U.S. Bureau of Economic Analysis RIMS II multipliers specific to King County. These multipliers help measure the typical ratio of direct to indirect and induced impacts by industry type. By incorporating these multipliers, TCG was able to assess the broader economic consequences of the shutdown beyond the immediate impacts on individual businesses. Detail on the multipliers utilized can be found in Appendix 4.

The direct, indirect, and induced impacts for Scenario 1a are presented in Table 6 below:

**Table 6: Direct, Indirect, and Induced Impacts**

Category	Total		
Business Revenue Lost	\$3,979,000		
Lingering Impacts	\$1,126,000		
Lost Wages	\$458,000		
Business Revenue	Direct	Indirect/ Induced	Total
Lost Revenue <i>(Shutdown Week)</i>	\$1,990,000	\$1,989,000	\$3,979,000
Lingering Impacts <i>(Following Week)</i>	\$563,000	\$563,000	\$1,126,000
<b>Total Lost Revenue</b>	<b>\$2,553,000</b>	<b>\$2,552,000</b>	<b>\$5,105,000</b>
Lost Wages	Direct	Total	
Lost Wages	\$458,000	\$458,000	

## Alternate Scenarios:

The methodology employed for each scenario remains consistent with the analysis presented above. For further details on additional scenarios, please refer to the appendix.

**Appendix 1:** Water District 54 Service Area Map

**Appendix 2:** Map of Impacted Business

**Appendix 3:** List of Impacted Business by Size and Industry Category

**Appendix 4:** RIMS II Multipliers Utilized for Indirect and Induced Impacts

**Appendix 5:** Detail for Scenario 1b: Assumes all businesses fully impacted, with no lingering impacts

**Appendix 6:** Detail for Scenario 2a: Assumes impact to business varied by industry type, with lingering impacts

**Appendix 7:** Detail for Scenario 2b: Assumes impact to business varied by industry type, with no lingering impacts





Appendix 2: Businesses Impacted - Location





Appendix 3: List of Businesses Impacted

<u>Tenant Name</u>	<u>Building Address</u>	<u>Tenant Space (SF)</u>	<u>Industry Type</u>
Bank of America	707 S 227th St	5,846	Bank
Chase	22240 Marine View Dr S	3,700	Bank
Key Bank	22033 Marine View Dr S	2,745	Bank
Wells Fargo	22037 7th Ave S	2,116	Bank
Lighthouse Lounge	22239 Marine View Dr S	1,497	Bar
Car wash Brown Bear	22706 Marine View Dr S	1,747	Car Wash
Ages and Stages Childcare	22038 9th Ave S	4,004	Child Care
Anchor Espresso	21904 Marine View Dr S	560	Coffee Shop
Dollar Tree	21815 Marine View Dr S	15,655	Dollar Store
Waterland Arcade	22306 Marine View Dr S	2,769	Entertainment
Marks & Marks CPA	22519 Marine View Dr S	2,634	Financial Services
John L Scott	22506 Marine View Dr S	2,357	Financial Services
State Farm	22235 7th Ave S	1,169	Financial Services
Library Tax	21849 Marine View Dr S	900	Financial Services
Vantage Point Services	22513 Marine View Dr S	750	Financial Services
Shell	21620 Marine View Dr S	2,542	Gas Station
76 Station		2,500	Gas Station
ABC Grocery	22309 7th Ave S	500	Grocery
Anytime Fitness	21819 Marine View Dr S	7,636	Health/Wellness
Spa Pool Specialist	22309 7th Ave S	2,288	Health/Wellness
Shiva Yoga	21915 Marine View Dr S	1,980	Health/Wellness
Marina Inn	22300 7th Ave S	20,241	Hotel
Highlander Laundry	21837 Marine View Dr S	1,663	Laundry/Cleaners
Skyline Dry Cleaners	21833 Marine View Dr S	1,663	Laundry/Cleaners
Dee Moines Cleaners	22021 7th Ave S	600	Laundry/Cleaners
Des Moines Drug	627 S 227th St	14,970	Market/Pharmacy
7-11		2,500	Market/Pharmacy
Smoke& Vape/Toke	22340 Marine View Dr S	1,501	Market/Pharmacy
Dee Moines Smoke Shop	21636 Marine View Dr S	1,172	Market/Pharmacy
Virginia Mason Medical	22000 Marine View Dr S	8,163	Medical
7th ave Dental Arts		2,000	Medical
Premier Denture Center		2,000	Medical
Des Moines Optometrist	21634 Marine View Dr S	1,848	Medical
Pearls for Kids dentistry	22506 Marine View Dr S	1,736	Medical
Des Moines Dental	21904 Marine View Dr S	1,395	Medical
Blooming Dental Implant Center	22030 7th Ave S	100	Medical
Print Place	22207 7th Ave S	450	Other Business
Anthony's	421 S 227th St	10,253	Restaurants
T&D Coffee	727 S 223rd St	10,121	Restaurants
Red Robin	22705 Marine View Dr S	7,729	Restaurants
All Star Sports Bar	22303 Marine View Dr S	6,030	Restaurants
Mandarin Kitchen	22612 7th Ave S	4,598	Restaurants
Tea Cup	22309 7th Ave S	3,776	Restaurants
Via Marina	22636 Marine View Dr S	3,676	Restaurants
Des Moines Public House	22315 Marine View Dr S	3,453	Restaurants

Appendix 3: List of Businesses Impacted (continued)

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<b>Tenant Name</b>	<b>Building Address</b>	<b>Tenant Space (SF)</b>	<b>Industry Type</b>
Wally's	22531 Marine View Dr S	3,169	Restaurants
Jack in The Box	22633 Marine View Dr S	3,053	Restaurants
New Tokyo	22340 Marine View Dr S	2,002	Restaurants
Auntie Irene's	22504 Marine View Dr S	1,955	Restaurants
Pho Dinh	21831 Marine View Dr S	1,663	Restaurants
Athens pizza and pasta	22340 Marine View Dr S	1,501	Restaurants
Dee Des Moines Thai	21630 7th Pl S	1,395	Restaurants
Home front Smoothies	21839 Marine View Dr S	1,200	Restaurants
Arturo's	22204 Marine View Dr S	1,035	Restaurants
Allberto's Mexican	21851 Marine View Dr S	1,000	Restaurants
Dog House	22302 Marine View Dr S	711	Restaurants
Jacks Restaurant	21919 Marine View Dr S	500	Restaurants
Quarterdeck	22307 Dock Ave S	362	Restaurants
Sweet D'licias	22021 7th Ave S	300	Restaurants
Mini Doughnut	21925 Marine View Dr S	225	Restaurants
Legion of Barbers	22201 Marine View Dr S	3,758	Salon/Barber/Nail
Fresh Hair and Nail	717 S 219th St	1,853	Salon/Barber/Nail
Pretty Nails	22319 Marine View Dr S	1,755	Salon/Barber/Nail
Allen Medical Aesthetic	22207 7th Ave S	1,625	Salon/Barber/Nail
Prolific Hair Design	22308 Marine View Dr S	1,284	Salon/Barber/Nail
Salon Michelle	21923 Marine View Dr S	1,200	Salon/Barber/Nail
Oasis Spa and Massage	21905 Marine View Dr S	1,200	Salon/Barber/Nail
Barber Supply	709 S 219th St	1,182	Salon/Barber/Nail
La Bonita Nails	21638 Marine View Dr S	1,172	Salon/Barber/Nail
Entourage Salon	22341 Marine View Dr S	1,165	Salon/Barber/Nail
Salon Timmy	22309 7th Ave S	1,100	Salon/Barber/Nail
Pauline's Nail	22204 Marine View Dr S	1,035	Salon/Barber/Nail
Larry's Barber Shop	22015 Marine View Dr S	1,014	Salon/Barber/Nail
Friends Lash Lounge	22030 7th Ave S	250	Salon/Barber/Nail
Saltwater animal Hospital	22014 7th Ave S	7,115	Sea Life/Animal Hospital
Marine View Pet Hospital	22616 Marine View Dr S	2,318	Sea Life/Animal Hospital
Browne Cellars		2,500	Specialty Store
Eight Dive Shop	22311 Marine View Dr S	2,430	Specialty Store
All Points Yarn	21921 Marine View Dr S	1,980	Specialty Store
B&E Meats & Seafood	2501 Marine View Dr S	1,943	Specialty Store
Foods of India	22511 Marine View Dr S	1,893	Specialty Store
Nu 2 you thrift	21907 Marine View Dr S	1,853	Specialty Store
Marina Mercantile	22341 Marine View Dr S	1,521	Specialty Store
Carriage Country Quilts	22214 Marine View Dr S	1,057	Specialty Store
Vintage Frame and Gallery	22507 Marine View Dr S	972	Specialty Store

Appendix 4 – RIMS II Type II Final-Demand Output Multipliers (Includes Indirect and Induced Impacts)

<u>Business Type</u>	<u>Final-Demand Multiplier (Type II)</u>
Restaurants	2.0367
Coffee Shop	2.0367
Specialty Store	1.9553
Salon/Barber/Nail	2.062
Medical	2.0977
Grocery	1.9976
Dollar Store	2.0001
Hotel	1.8973
Sea Life/Animal Hospital	2.0977
Bar	2.0367
Child Care	2.0942
Entertainment	1.9976
Laundry/Cleaners	1.9553
Car Wash	1.9553
Other Business	1.9553
Bank	2.0619
Market/Pharmacy	1.9553
Financial Services	2.0619
Health/Wellness	1.9553
Gas Station	1.9553

Appendix 5 - Scenario 1b: All businesses within the impacted area were 100% affected for the seven-day shutdown with no lingering impacts after reopening.

Table 3: Lost Business Revenue

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Revenue	Fathers's Day Uplift		Adjusted Lost Revenue
		Average	Total	Annual	Daily	Days	%		%	Nominal	
Restaurants	23	2,958	68,031	\$578	\$1.58	7	100%	\$753,468	40%	\$86,111	\$839,578
Coffee Shop	1	560	560	\$633	\$1.73	7	100%	\$6,793	20%	\$388	\$7,181
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	100%	\$136,272	10%	\$3,893	\$140,165
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	100%	\$113,664	20%	\$6,495	\$120,159
Medical	7	2,463	17,242	\$495	\$1.36	7	100%	\$163,682	0%	\$0	\$163,682
Grocery	1	500	500	\$550	\$1.51	7	100%	\$5,274	40%	\$603	\$5,877
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	100%	\$66,051	25%	\$4,718	\$70,769
Hotel	1	20,241	20,241	\$88	\$0.24	7	100%	\$34,160	25%	\$2,440	\$36,600
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	100%	\$89,553	0%	\$0	\$89,553
Bar	1	1,497	1,497	\$605	\$1.66	7	100%	\$17,374	40%	\$1,986	\$19,359
Child Care	1	4,004	4,004	\$440	\$1.21	7	100%	\$33,787	0%	\$0	\$33,787
Entertainment	1	2,769	2,769	\$165	\$0.45	7	100%	\$8,761	40%	\$1,001	\$9,762
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	100%	\$33,129	0%	\$0	\$33,129
Car Wash	1	1,747	1,747	\$495	\$1.36	7	100%	\$16,588	10%	\$474	\$17,062
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	100%	\$75,338	10%	\$2,153	\$77,490
Bank	4	3,602	14,407	\$330	\$0.90	7	100%	\$91,177	0%	\$0	\$91,177
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	100%	\$127,480	0%	\$0	\$127,480
Financial Services	5	1,562	7,810	\$330	\$0.90	7	100%	\$49,428	0%	\$0	\$49,428
Gas Station	2	2,521	5,042	\$550	\$1.51	7	100%	\$53,178	10%	\$1,519	\$54,697
Other Business	1	450	450	\$330	\$0.90	7	100%	\$2,848	0%	\$0	\$2,848
<b>Total</b>	<b>85</b>							<b>\$1,878,002</b>		<b>\$111,781</b>	<b>\$1,989,783</b>

Table 5: Lost Wages

Business Type	Count	Building Space		Employee Count		Wages		Shift Length	Impacted		Lost Wages	Fathers's Day Uplift		Adjusted Lost Wages
		Average	Total	SF/Employee	Employees	Hourly	% Hourly Workers		Days	%		%	Nominal	
Restaurants	23	2,958	68,031	300	227	\$18.02	80%	8	7	100%	\$183,071	40%	\$20,922	\$203,993
Coffee Shop	1	560	560	300	2	\$18.02	80%	8	7	100%	\$1,507	20%	\$86	\$1,593
Specialty Store	9	1,794	16,149	450	36	\$18.02	80%	8	7	100%	\$28,971	0%	\$0	\$28,971
Salon/Barber/Nail	14	1,399	19,593	450	44	\$20.27	80%	8	7	100%	\$39,538	20%	\$2,259	\$41,797
Medical	7	2,463	17,242	300	57	\$19.24	50%	8	7	100%	\$30,962	0%	\$0	\$30,962
Grocery	1	500	500	700	1	\$20.27	75%	8	7	100%	\$608	0%	\$0	\$608
Dollar Store	1	15,655	15,655	700	22	\$20.27	75%	8	7	100%	\$19,040	0%	\$0	\$19,040
Hotel	1	20,241	20,241	1,800	11	\$18.02	75%	8	7	100%	\$8,511	0%	\$0	\$8,511
Sea Life/Animal Hospital	2	4,717	9,433	300	31	\$19.24	50%	8	7	100%	\$16,940	0%	\$0	\$16,940
Bar	1	1,497	1,497	450	3	\$18.02	75%	8	7	100%	\$2,518	40%	\$288	\$2,806
Child Care	1	4,004	4,004	450	9	\$19.24	25%	8	7	100%	\$2,397	0%	\$0	\$2,397
Entertainment	1	2,769	2,769	450	6	\$18.02	75%	8	7	100%	\$4,656	0%	\$0	\$4,656
Laundry/Cleaners	3	1,309	3,926	450	9	\$20.27	75%	8	7	100%	\$7,427	0%	\$0	\$7,427
Car Wash	1	1,747	1,747	450	4	\$20.27	75%	8	7	100%	\$3,306	5%	\$47	\$3,353
Health/Wellness	3	3,968	11,904	450	26	\$20.27	80%	8	7	100%	\$24,022	0%	\$0	\$24,022
Bank	4	3,602	14,407	300	48	\$41.34	10%	8	7	100%	\$11,117	0%	\$0	\$11,117
Market/Pharmacy	4	5,036	20,143	500	40	\$20.27	80%	8	7	100%	\$36,584	0%	\$0	\$36,584
Financial Services	5	1,562	7,810	300	26	\$24.18	10%	8	7	100%	\$3,525	0%	\$0	\$3,525
Gas Station	2	2,521	5,042	500	10	\$20.27	80%	8	7	100%	\$9,156	0%	\$0	\$9,156
Other Business	1	450	450	300	2	\$20.27	50%	8	7	100%	\$851	0%	\$0	\$851
											<b>\$434,708</b>		<b>\$23,603</b>	<b>\$458,311</b>

Table 6: Direct, Indirect, and Induced Impacts

Category	Total		
Business Revenue Lost	\$3,979,000		
Lingering Impacts	\$0		
Lost Wages	\$458,000		
Business Revenue	Direct	Indirect/ Induced	Total
Lost Revenue <i>(Shutdown Week)</i>	\$1,990,000	\$1,989,000	\$3,979,000
Lingering Impacts <i>(Following Week)</i>	\$0	\$0	\$0
<b>Total Lost Revenue</b>	<b>\$1,990,000</b>	<b>\$1,989,000</b>	<b>\$3,979,000</b>
Lost Wages	Direct	Total	
Lost Wages	\$458,000	\$458,000	



Appendix 6 - Scenario 2a: Businesses within the impacted area were affected differently based on their industry type during the seven-day shutdown, with lingering impacts at 30% for an additional seven days after reopening.

**Table 3: Lost Business Revenue**

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Revenue	Fathers's Day Uplift		Adjusted Lost Revenue
		Average	Total	Annual	Daily	Days	%		%	Nominal	
Restaurants	23	2,958	68,031	\$578	\$1.58	7	100%	\$753,468	40%	\$86,111	\$839,578
Coffee Shop	1	560	560	\$633	\$1.73	7	100%	\$6,793	20%	\$388	\$7,181
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	50%	\$68,136	10%	\$1,947	\$70,083
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	75%	\$85,248	20%	\$4,871	\$90,119
Medical	7	2,463	17,242	\$495	\$1.36	7	25%	\$40,920	0%	\$0	\$40,920
Grocery	1	500	500	\$550	\$1.51	7	25%	\$1,318	40%	\$151	\$1,469
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	25%	\$16,513	25%	\$1,179	\$17,692
Hotel	1	20,241	20,241	\$88	\$0.24	7	75%	\$25,620	25%	\$1,830	\$27,450
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	25%	\$22,388	0%	\$0	\$22,388
Bar	1	1,497	1,497	\$605	\$1.66	7	100%	\$17,374	40%	\$1,986	\$19,359
Child Care	1	4,004	4,004	\$440	\$1.21	7	50%	\$16,893	0%	\$0	\$16,893
Entertainment	1	2,769	2,769	\$165	\$0.45	7	50%	\$4,380	40%	\$501	\$4,881
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	75%	\$24,847	0%	\$0	\$24,847
Car Wash	1	1,747	1,747	\$495	\$1.36	7	75%	\$12,441	10%	\$355	\$12,797
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	50%	\$37,669	10%	\$1,076	\$38,745
Bank	4	3,602	14,407	\$330	\$0.90	7	25%	\$22,794	0%	\$0	\$22,794
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	25%	\$31,870	0%	\$0	\$31,870
Financial Services	5	1,562	7,810	\$330	\$0.90	7	25%	\$12,357	0%	\$0	\$12,357
Gas Station	2	2,521	5,042	\$550	\$1.51	7	25%	\$13,294	10%	\$380	\$13,674
Other Business	1	450	450	\$330	\$0.90	7	25%	\$712	0%	\$0	\$712
<b>Total</b>	<b>85</b>							<b>\$1,215,036</b>		<b>\$100,775</b>	<b>\$1,315,811</b>

**Table 4: Post Shutdown Impact**

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Revenue
		Average	Total	Annual	Daily	Days	%	
Restaurants	23	2,958	68,031	\$578	\$1.58	7	30%	\$226,040
Coffee Shop	1	560	560	\$633	\$1.73	7	30%	\$2,038
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	15%	\$20,441
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	23%	\$25,574
Medical	7	2,463	17,242	\$495	\$1.36	7	8%	\$12,276
Grocery	1	500	500	\$550	\$1.51	7	8%	\$396
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	8%	\$4,954
Hotel	1	20,241	20,241	\$88	\$0.24	7	23%	\$7,686
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	8%	\$6,716
Bar	1	1,497	1,497	\$605	\$1.66	7	30%	\$5,212
Child Care	1	4,004	4,004	\$440	\$1.21	7	15%	\$5,068
Entertainment	1	2,769	2,769	\$165	\$0.45	7	15%	\$1,314
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	23%	\$7,454
Car Wash	1	1,747	1,747	\$495	\$1.36	7	23%	\$3,732
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	15%	\$11,301
Bank	4	3,602	14,407	\$330	\$0.90	7	8%	\$6,838
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	8%	\$9,561
Financial Services	5	1,562	7,810	\$330	\$0.90	7	8%	\$3,707
Gas Station	2	2,521	5,042	\$550	\$1.51	7	8%	\$3,988
Other Business	1	450	450	\$330	\$0.90	7	8%	\$214
<b>Total</b>	<b>85</b>							<b>\$364,511</b>

**Table 5: Lost Wages**

Business Type	Count	Building Space		Employee Count		Wages		Shift Length	Impacted		Lost Wages	Father's Day Uplift		Adjusted Lost Wages
		Average	Total	SF/Employee	Employees	Hourly	Hourly Worked		Days	%		%	Nominal	
Restaurants	23	2,958	68,031	300	227	\$18.02	80%	8	7	100%	\$183,071	40%	\$20,922	\$203,993
Coffee Shop	1	560	560	300	2	\$18.02	80%	8	7	100%	\$1,507	20%	\$86	\$1,593
Specialty Store	9	1,794	16,149	450	36	\$18.02	80%	8	7	50%	\$14,486	0%	\$0	\$14,486
Salon/Barber/Nail	14	1,399	19,593	450	44	\$20.27	80%	8	7	75%	\$29,653	20%	\$1,694	\$31,348
Medical	7	2,463	17,242	300	57	\$19.24	50%	8	7	25%	\$7,741	0%	\$0	\$7,741
Grocery	1	500	500	700	1	\$20.27	75%	8	7	25%	\$152	0%	\$0	\$152
Dollar Store	1	15,655	15,655	700	22	\$20.27	75%	8	7	25%	\$4,760	0%	\$0	\$4,760
Hotel	1	20,241	20,241	1,800	11	\$18.02	75%	8	7	75%	\$6,383	0%	\$0	\$6,383
Sea Life/Animal Hospital	2	4,717	9,433	300	31	\$19.24	50%	8	7	25%	\$4,235	0%	\$0	\$4,235
Bar	1	1,497	1,497	450	3	\$18.02	75%	8	7	100%	\$2,518	40%	\$288	\$2,806
Child Care	1	4,004	4,004	450	9	\$19.24	25%	8	7	50%	\$1,198	0%	\$0	\$1,198
Entertainment	1	2,769	2,769	450	6	\$18.02	75%	8	7	50%	\$2,328	0%	\$0	\$2,328
Laundry/Cleaners	3	1,309	3,926	450	9	\$20.27	75%	8	7	75%	\$5,571	0%	\$0	\$5,571
Car Wash	1	1,747	1,747	450	4	\$20.27	75%	8	7	75%	\$2,479	5%	\$35	\$2,515
Health/Wellness	3	3,968	11,904	450	26	\$20.27	80%	8	7	50%	\$12,011	0%	\$0	\$12,011
Bank	4	3,602	14,407	300	48	\$41.34	10%	8	7	25%	\$2,779	0%	\$0	\$2,779
Market/Pharmacy	4	5,036	20,143	500	40	\$20.27	80%	8	7	25%	\$9,146	0%	\$0	\$9,146
Financial Services	5	1,562	7,810	300	26	\$24.18	10%	8	7	25%	\$881	0%	\$0	\$881
Gas Station	2	2,521	5,042	500	10	\$20.27	80%	8	7	25%	\$2,289	0%	\$0	\$2,289
Other Business	1	450	450	300	2	\$20.27	50%	8	7	25%	\$213	0%	\$0	\$213
											<b>\$293,401</b>		<b>\$23,026</b>	<b>\$316,428</b>

**Table 6: Direct, Indirect, and Induced Impacts**

Category	Total		
Business Revenue Lost	\$2,655,000		
Lingering Impacts	\$736,000		
Lost Wages	\$316,000		
Business Revenue	Direct	Indirect/ Induced	Total
Business Revenue <i>(Shutdown Week)</i>	\$1,316,000	\$1,339,000	\$2,655,000
Lingering Impacts <i>(Following Week)</i>	\$365,000	\$371,000	\$736,000
<b>Total Lost Revenue</b>	<b>\$1,681,000</b>	<b>\$1,710,000</b>	<b>\$3,391,000</b>
Lost Wages	Direct	Total	
Lost Wages	\$316,000	\$316,000	

Appendix 7 - Scenario 2b: Businesses within the impacted area were affected differently based on their industry type during the seven-day shutdown, with no lingering impacts after reopening.

Table 3: Lost Business Revenue

Business Type	Count	Building Space		Sales Per SF		Impacted		Lost Revenue	Fathers's Day Uplift %	Fathers's Day Uplift Nominal	Adjusted Lost Revenue
		Average	Total	Annual	Daily	Days	%				
Restaurants	23	2,958	68,031	\$578	\$1.58	7	100%	\$753,468	40%	\$86,111	\$839,578
Coffee Shop	1	560	560	\$633	\$1.73	7	100%	\$6,793	20%	\$388	\$7,181
Specialty Store	9	1,794	16,149	\$440	\$1.21	7	50%	\$68,136	10%	\$1,947	\$70,083
Salon/Barber/Nail	14	1,399	19,593	\$303	\$0.83	7	75%	\$85,248	20%	\$4,871	\$90,119
Medical	7	2,463	17,242	\$495	\$1.36	7	25%	\$40,920	0%	\$0	\$40,920
Grocery	1	500	500	\$550	\$1.51	7	25%	\$1,318	40%	\$151	\$1,469
Dollar Store	1	15,655	15,655	\$220	\$0.60	7	25%	\$16,513	25%	\$1,179	\$17,692
Hotel	1	20,241	20,241	\$88	\$0.24	7	75%	\$25,620	25%	\$1,830	\$27,450
Sea Life/Animal Hospital	2	4,717	9,433	\$495	\$1.36	7	25%	\$22,388	0%	\$0	\$22,388
Bar	1	1,497	1,497	\$605	\$1.66	7	100%	\$17,374	40%	\$1,986	\$19,359
Child Care	1	4,004	4,004	\$440	\$1.21	7	50%	\$16,893	0%	\$0	\$16,893
Entertainment	1	2,769	2,769	\$165	\$0.45	7	50%	\$4,380	40%	\$501	\$4,881
Laundry/Cleaners	3	1,309	3,926	\$440	\$1.21	7	75%	\$24,847	0%	\$0	\$24,847
Car Wash	1	1,747	1,747	\$495	\$1.36	7	75%	\$12,441	10%	\$355	\$12,797
Health/Wellness	3	3,968	11,904	\$330	\$0.90	7	50%	\$37,669	10%	\$1,076	\$38,745
Bank	4	3,602	14,407	\$330	\$0.90	7	25%	\$22,794	0%	\$0	\$22,794
Market/Pharmacy	4	5,036	20,143	\$330	\$0.90	7	25%	\$31,870	0%	\$0	\$31,870
Financial Services	5	1,562	7,810	\$330	\$0.90	7	25%	\$12,357	0%	\$0	\$12,357
Gas Station	2	2,521	5,042	\$550	\$1.51	7	25%	\$13,294	10%	\$380	\$13,674
Other Business	1	450	450	\$330	\$0.90	7	25%	\$712	0%	\$0	\$712
<b>Total</b>	<b>85</b>							<b>\$1,215,036</b>		<b>\$100,775</b>	<b>\$1,315,811</b>

Table 5: Lost Wages

Business Type	Count	Building Space		Employee Count		Wages		Shift Length	Impacted		Lost Wages	Fathers's Day Uplift %	Fathers's Day Uplift Nominal	Adjusted Lost Wages
		Average	Total	SF/Employee	Employees	Hourly	% Hourly Workers		Days	%				
Restaurants	23	2,958	68,031	300	227	\$18.02	80%	8	7	100%	\$183,071	40%	\$20,922	\$203,993
Coffee Shop	1	560	560	300	2	\$18.02	80%	8	7	100%	\$1,507	20%	\$86	\$1,593
Specialty Store	9	1,794	16,149	450	36	\$18.02	80%	8	7	50%	\$14,486	0%	\$0	\$14,486
Salon/Barber/Nail	14	1,399	19,593	450	44	\$20.27	80%	8	7	75%	\$29,653	20%	\$1,694	\$31,348
Medical	7	2,463	17,242	300	57	\$19.24	50%	8	7	25%	\$7,741	0%	\$0	\$7,741
Grocery	1	500	500	700	1	\$20.27	75%	8	7	25%	\$152	0%	\$0	\$152
Dollar Store	1	15,655	15,655	700	22	\$20.27	75%	8	7	25%	\$4,760	0%	\$0	\$4,760
Hotel	1	20,241	20,241	1,800	11	\$18.02	75%	8	7	75%	\$6,383	0%	\$0	\$6,383
Sea Life/Animal Hospital	2	4,717	9,433	300	31	\$19.24	50%	8	7	25%	\$4,235	0%	\$0	\$4,235
Bar	1	1,497	1,497	450	3	\$18.02	75%	8	7	100%	\$2,518	40%	\$288	\$2,806
Child Care	1	4,004	4,004	450	9	\$19.24	25%	8	7	50%	\$1,198	0%	\$0	\$1,198
Entertainment	1	2,769	2,769	450	6	\$18.02	75%	8	7	50%	\$2,328	0%	\$0	\$2,328
Laundry/Cleaners	3	1,309	3,926	450	9	\$20.27	75%	8	7	75%	\$5,571	0%	\$0	\$5,571
Car Wash	1	1,747	1,747	450	4	\$20.27	75%	8	7	75%	\$2,479	5%	\$35	\$2,515
Health/Wellness	3	3,968	11,904	450	26	\$20.27	80%	8	7	50%	\$12,011	0%	\$0	\$12,011
Bank	4	3,602	14,407	300	48	\$41.34	10%	8	7	25%	\$2,779	0%	\$0	\$2,779
Market/Pharmacy	4	5,036	20,143	500	40	\$20.27	80%	8	7	25%	\$9,146	0%	\$0	\$9,146
Financial Services	5	1,562	7,810	300	26	\$24.18	10%	8	7	25%	\$881	0%	\$0	\$881
Gas Station	2	2,521	5,042	500	10	\$20.27	80%	8	7	25%	\$2,289	0%	\$0	\$2,289
Other Business	1	450	450	300	2	\$20.27	50%	8	7	25%	\$213	0%	\$0	\$213
											<b>\$293,401</b>		<b>\$23,026</b>	<b>\$316,428</b>

Table 6: Direct, Indirect, and Induced Impacts

Category	Calculated		
Business Revenue Lost	\$2,655,000		
Lingering Impacts	\$0		
Lost Wages	\$316,000		
Business Revenue	Direct	Indirect/ Induced	Total
Business Revenue (Shutdown Week)	\$1,316,000	\$1,339,000	\$2,655,000
Lingering Impacts (Following Week)	\$0	\$0	\$0
<b>Total Lost Revenue</b>	<b>\$1,316,000</b>	<b>\$1,339,000</b>	<b>\$2,655,000</b>
Lost Wages	Direct	Total	
Lost Wages	\$316,000	\$316,000	