Proposed Amendments
to the
California Code of Regulations
Title 23. Waters
Division 3. State Water Resources Control Board and Regional Water Quality Control Boards
Chapter 16. Underground Tank Regulations

SUPPLEMENTAL ECONOMIC AND FISCAL IMPACT STATEMENT

September 2024
State Water Resources Control Board
Division of Water Quality

SUPPLEMENTAL ECONOMIC/FISCAL IMPACT STATEMENT

DATA SOURCES

The primary source of data used for this economic and fiscal statement is the California Environmental Reporting System (CERS), California's database for electronically reporting, collecting, and managing hazardous materials-related data, including underground storage tank (UST) data. State Water Resources Control Board (State Water Board) staff also received cost estimates for complying with additional construction, monitoring, and testing requirements from existing equipment from businesses in the industry that currently offer the services necessary to satisfy the proposed regulations.

ECONOMIC IMPACT STATEMENT

A. Estimated Private Sector Cost Impacts

3. How many businesses are impacted?

The State Water Board has determined that the proposed regulations impact about 3,600 of the estimated 13,600 facilities (businesses) that own or operate USTs. These 3,600 impacted facilities have approximately 10,200 USTs. State Water Board staff referenced the CERS database to determine which facilities would be impacted by the proposed changes. Representative businesses include retail and fleet fuel-dispensing businesses, manufacturing plants, fuel farms, communication companies, hospitals, data centers, parking structures, dry cleaners, property management, and marinas. The State Water Board estimates that 80 percent, or 2,900, of these impacted businesses are small businesses with less than 500 employees, are independently owned and operated, and are not dominant in their field of operation.

4. How many businesses will be created or eliminated?

Businesses Created
The State Water Board has determined that the proposed regulatory action will have a minimal impact on the creation of new businesses within the State of California, because the added construction, monitoring, and testing requirements for existing equipment do not create a significant workload to support the creation of new businesses.

Businesses Eliminated
The State Water Board has determined that the proposed regulatory action will have a minimal impact on the elimination of existing businesses within the State of California. Businesses that are unable or unwilling to invest in equipment to

meet the proposed regulatory requirements may be eliminated; however, the State Water Board expects the number of these businesses that are either unable or unwilling to invest in new equipment to be minimal based on the cost of the proposed requirements, including the long-term cost savings for businesses implementing these requirements.

6. How many jobs will be created or eliminated?

The State Water Board estimates that the proposed regulatory action will have a minimal impact on the creation or elimination of jobs within California because the amendments to the UST Regulations do not create or eliminate a significant enough workload to support the creation or elimination of jobs within California.

B. Estimated Costs

1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime?

The State Water Board estimates that the total statewide dollar costs that businesses and individuals may incur to comply with this proposed regulatory action over its lifetime of 25 years to be $13,309,590. (See Table 1.) The State Water Board estimates the lifetime of these proposed regulations to be 25 years after taking into account the typical lifespan of a UST, including the typical lifespan of various UST components impacted by the proposed regulations, and the decreasing trend in UST installations over time.

The proposed regulations impose new requirements as part of existing testing requirements, but they do not require additional testing. The State Water Board has determined that these additional testing requirements will not impose additional costs on businesses or individuals.

Existing regulations require all USTs subject to flotation to be anchored appropriately. The proposed regulations will require all new tanks to be anchored. As a result of existing regulations, local requirements, and best practices, anchoring currently is used on 60 to 70 percent of new UST installations, therefore, this proposed requirement only impacts approximately 35 percent of new UST installations. The State Water Board estimates that the typical cost of this new anchoring requirement for an owner or operator who would not otherwise use anchors on a new UST installation is $15,000 per tank or $45,000 for a typical UST installation that includes three tanks. Based on the previous seven years of historical UST installation data submitted by UPAs, there has been a decrease in the number of new USTs that are installed annually, however, the number of new tank installations likely will not reach zero within the

lifetime of the regulations. After taking into account the cost of anchoring and the number of additional tanks that likely will require anchoring under the proposed regulations, the State Water Board estimates that the lifetime cost of this proposed requirement is $13,320,000. (See Table 2.)

The proposed regulations will require direct buried, single-walled spill containers to be replaced with secondarily contained spill containers when they need to be repaired. After reviewing the CERS Facility/Tank Data download, the State Water Board has determined that there are approximately 6,500 direct buried, single-walled spill containers that will be affected due to this change. Based on cost estimates provided by businesses in the industry, the State Water Board estimates that 7 percent of these spill containers require repair annually. This new subdivision will require owners or operators to replace these spill containers with secondarily contained spill containment, which will cost approximately $13,000 more than replacing the spill container with a new direct-buried spill container. After taking into account the increased cost of replacing the spill containment with a secondarily contained spill container and the number of direct buried, single-walled spill containers likely to fail each year, the State Water Board estimates that the lifetime cost of this proposed requirement is $70,730,112. (See Table 3.)

This increased cost is offset, however, by a decrease in future costs. While the annual repair rate is the same for both secondarily contained spill buckets and direct-buried spill containers, the cost of future repairs is less at facilities with secondarily contained spill containers. This is because unlike with single-walled, direct buried spill containers, it is not necessary to break concrete or excavate to complete repairs on secondarily contained spill containment. Based on cost estimates provided by businesses in the industry, the State Water Board estimates this savings to be $11,500 per spill containment replacement. Based on this future savings, the State Water Board estimates the lifetime savings of this proposed requirement is $72,623,381. Therefore, the State Water Board estimates that the lifetime cost of this proposed requirement of $70,730,112 is outweighed by the lifetime savings of this proposed requirement of $72,623,381, for a total lifetime savings of $1,893,270. (See Table 4.)

The proposed regulations will require mechanical release detection equipment used to continuously monitored under-dispenser containment to be replaced with a continuous electronic monitoring method if it fails to function properly during operation or testing. The cost of installing continuous electronic monitoring is approximately $450, as opposed to approximately $100 for installing mechanical release detection equipment. Therefore, the State Water Board estimates this proposed requirement will cost owners or operators an additional $350 when they need to replace their mechanical release detection equipment because it is not operating properly. After reviewing the CERS Facility/Tank Data download,

the State Water Board has determined that approximately 5,400 mechanical release detection equipment units will be impacted by the proposed regulation. Based on cost estimates provided by businesses in the industry, the State Water Board estimates that 20 percent of these mechanical release detection equipment units require repair annually. After taking into account the increased cost of replacing mechanical release detection equipment with a continuous electronic monitoring method and the number of mechanical release detection equipment units likely to fail each year, the State Water Board estimate that the lifetime cost of this proposed requirement is $1,882,860. (See Tables 5 and 6.)

The proposed regulations also provide owners and operators various compliance options that may come with cost savings. For example, owners or operators of USTs using vacuum, pressure, or hydrostatic monitoring on underground, pressurized piping may choose to forgo the line leak detector requirement. Additionally, the proposed regulations provide increased flexibility for emerging technologies to develop, which may result in savings for owners or operators.

(a) Costs for small businesses

As discussed in paragraph (A)(3) above, the State Water Board has determined that approximately 80 percent of affected businesses are small businesses, therefore, a small business is a typical business. Small businesses typically own two to four USTs, therefore, for the purpose of this analysis, the State Water Board will assume each of the affected small businesses owns or operates three USTs. A small business installing new USTs that is subject to the proposed anchoring requirement would not incur any additional repair costs as a result of the proposed regulations. It also is unlikely that all three of a small business's USTs would be subject to meeting all the additional repair requirements proposed within a single year because the requirements only must be met only when specific equipment requires repair and may not be required if the specific equipment does not require repair before UST permanent closure. Therefore, no small business will be subject to all the proposed regulations that result in additional costs.

(b) Costs for typical businesses

The State Water Board has determined that approximately 80 percent of affected businesses are small businesses, therefore, a typical business is a small business. The impact on a typical business, however, should be much less than the impact on some of the smallest businesses.

As a result of existing regulations, local requirements, and best practices, anchoring currently is used on 60 to 70 percent of new UST installations,

therefore, the proposed requirement to anchor all new USTs only impacts approximately 35 percent of new UST installations. For the typical business that removes and replaces its three USTs and would not otherwise anchor its USTs, the anchoring requirement will cost an additional $45,000. This is a one-time purchase as the lifespan of a UST is at least as long as the lifetime of the proposed regulations. As illustrated in Table 2, it is expected that 80 units will require this anchoring in the first year the proposed regulations are effective, affecting 27 businesses of the total 3,600 businesses impacted by the proposed regulations. Of the 27 businesses impacted in the first year of the proposed regulations, 22 are considered typical.

Over time, the number of typical businesses affected will decrease as discussed in more detail above. Anchoring the USTs avoids the potential risk of buoyant tanks, which is increasing as storm events become more extreme due to climate change. In areas of high groundwater, or after storm events where soil becomes saturated, USTs become buoyant and will breach the ground surface, damaging associated piping, fueling areas, and existing utilities. The costs associated with this are similar to a complete, new UST installation, including re-excavation, re-plumbing, paving, and all associated testing, and system down time.

There are about 2,100 typical businesses that will be affected by the proposed secondarily contained spill container requirement. A typical business has three spill containers. Replacing three single-walled spill containers with secondarily contained spill containers, instead of single-walled spill containers, would cost an additional $13,000 for three containers, for total of $39,000 for a typical business. As secondarily contained spill containers get replaced over time, however, the typical business will realize a cost savings over the lifetime of the proposed regulations. As illustrated in Table 3, 455 units will require replacement in the first year the proposed regulations are effective, affecting 152 businesses of the total 3,600 businesses impacted by the proposed regulations. Of the 152 businesses impacted in the first year of the proposed regulations, 121 are considered typical.

Approximately 1,200 typical businesses will be impacted by the proposed under-dispenser containment monitoring change over the lifetime of the proposed regulations. A typical business has six under-dispenser containments. Replacing all six mechanical release detection methods with continuous electronic monitoring methods, instead of a mechanical release detection method, would cost an additional $350 per dispensers, for a total of $2,100 for a typical business with six dispensers. As illustrated in Table 6, 1,080 units will require replacement in the first year the proposed regulations are effective, affecting 180 of the 3,600 businesses impacted by the proposed regulations. Of

the 180 businesses impacted in the first year of the proposed regulations, 144 are considered typical.

Over the 25-year lifetime of the proposed regulations, businesses will save $1,893,270 by upgrading their spill containers with secondarily contained spill containers as shown in Table 4. Of this savings, 80 percent or $1,514,616, will be saved by typical businesses. This is equal to $721 per typical business impacted by the proposed regulations over the regulatory lifetime, or a savings of $28 per typical business each year. Over the same timeframe, businesses will spend $1,882,860 on upgrading under-dispenser containment monitoring equipment as shown in Table 6. Of this, 80 percent or $1,506,288, will be spent by typical businesses. This is equal to $1,255 per typical business impacted by the regulations over the regulatory lifetime, or a cost of $50 per typical business each year. These two values equate to an overall cost of $22 per typical business per year over the lifetime of the regulations.

No businesses will be affected by all three of these proposed regulatory requirements. New UST installations are prohibited from installing direct bury spill containers and using under-dispenser mechanical release detection equipment. Additionally, many businesses will not be impacted by any of these three proposed regulatory requirements. Typical businesses installing new USTs that would not otherwise anchor their USTs would incur an additional $45,000, while avoiding the potential risk of significant costs resulting from their USTs becoming buoyant. A typical business with existing USTs may incur the cost of replacing three single-walled spill containers with secondarily contained spill containers ($39,000) and six under-dispenser mechanical release detection methods be replaced with continuous electronic monitoring methods ($2,100), for up to $41,100 in additional costs, however, these initial costs are off-set by long-term savings in lower ongoing repair costs.

(c) Costs for individuals

The State Water Board has determined that the individuals affected by the proposed regulations are those individuals or sole proprietors that own or operate typical businesses, therefore, the costs for an individual will be the same as the costs for a typical business as explained above.

5. What is the need for State regulation given the existence of Federal regulations?

The proposed regulations are necessary because the State has its own UST regulatory program in lieu of implementing the Federal UST Regulations. The State Water Board proposes to amend the regulations to be consistent with

Health and Safety Code, division 20, chapter 6.7 (commencing with section 25280) (Health and Safety Code chapter 6.7). The proposed regulations are consistent with part 280 of 40 Code of Federal Regulations (Federal Regulations); however, to be consistent with Health and Safety Code chapter 6.7, they will be more stringent than Federal regulations. Health and Safety Code sections 25280.5 and 25299.3 require the State Water Board to adopt regulations implementing a state UST program in lieu of a federal program. In addition, California is often seen as the leading edge of UST safety and technology and will use the proposed regulations to maintain this high standard in the future consistent with Health and Safety Code chapter 6.7.

C. Estimated Benefits

1. What are the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety, and the State's environment?

The proposed regulations: 1) provide higher standards of UST construction, monitoring, and testing; 2) improve tracking, notification procedures, and clarify agency responsibilities; and 3) update abatement and corrective action procedures and oversight. These amendments decrease the risk of a release of a hazardous substance from a UST and decrease the risks of soil and groundwater contamination in the event of a release of a hazardous substance from a UST, improving the health and welfare of California residents, worker safety, and the State's environment. As a consequence, the proposed regulations will: 1) improve public health and welfare for California residents, worker safety, and the State's environment; 2) result in a savings in cleanup costs to businesses and the UST Cleanup Fund; 3) reduce confusion within the regulated community; and 4) be consistent with the established policy of the State recognizing the human right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

2. Are the benefits the result of specific statutory requirements or goals developed by the agency based on broad statutory authority?

The benefits are the result of goals developed by the State Water Board based on broad statutory authority. Health and Safety Code sections 25280.5 and 25299.3 require the State Water Board to adopt regulations implementing a state UST program in lieu of a federal program. In addition, the proposed regulations serve to protect the human right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes, and reduce costs of cleaning up releases of hazardous substances from USTs.

3. What are the total statewide benefits from this regulation over its lifetime?

The State Water Board has determined that the proposed regulations could have significant statewide benefits over the lifetime of the regulations. The proposed regulations will: 1) improve the health and welfare for California residents, worker safety, and the State's environment; 2) result in a savings in cleanup costs to responsible parties and the UST Cleanup Fund; 3) improve tracking, notification procedures, and clarify agency responsibilities; 4) reduce confusion within the regulated community; and 5) be consistent with the established policy of the State recognizing the human right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. These benefits are difficult to quantify in dollar value, however, the loss of a source of safe, clean water and the cost of providing replacement water can be significant.

4. Describe any expansion of businesses currently performing business within the State of California that would result from this regulation.

The State Water Board has determined that there will be minimal impact on the expansion of businesses currently working within the State of California as a result of this regulation because the amendments to the UST Regulations do not create enough workload to support the expansion of businesses currently doing business within California.

D. Alternatives to the Regulation

1. Describe the alternatives considered, and 2. summarize the total statewide costs and benefits from this regulation and each alternative.

Proposed Regulations

As summarized in section C(1) above, the proposed regulations decrease the risk of a release of a hazardous substance from a UST and decrease the risks of soil and groundwater contamination in the event of a release of a hazardous substance from a UST, improving the health and welfare of California residents, worker safety, and the State's environment. These benefits are difficult to quantify in dollar value, however, the loss of a source of safe, clean water and the cost of providing replacement water can be significant. The cost of implementing these regulations is $13,309,590.

Alternative 1

The State Water Board considered only amending the UST regulations to make them consistent with current technology and operational practices, including deleting deadlines that have passed, and not make them consistent with amendments to the Health and Safety Code enacted by Chapter 536, Statutes of

2012, Chapter 547, Statutes of 2014, Chapter 721, Statutes of 2018, Chapter 207, Statutes of 2023. This alternative, however, is not reasonable because the UST Regulations will continue to not be consistent with the current language of the Health and Safety Code. If the State Water Board does not amend the UST Regulations to make them consistent with current technology and operational practices, including deleting deadlines that have passed, UST owners and operators and their contractors will not have a clear understanding of the requirements for installing, operating, and maintaining a UST. Additionally, UST regulators may not apply the requirements for installing, operating, and maintaining a UST consistently across the state if they are not specifically set forth in the UST Regulations. Further, it is unclear how the State Water Board could amend the UST Regulations to make them consistent with current technology and operational practices without also making them consistent with the current language of the Health and Safety Code. Implementing this includes the proposed spill container and under-dispenser containment requirements, but not the proposed anchoring requirement. As a result, this alternative would cost $13,320,000 less than implementing the proposed regulations, however, it is an unacceptable alternative due to the details discussed above.

Alternative 2

The State Water Board considered only amending the UST Regulations to make them consistent with amendments to the Health and Safety Code enacted by Chapter 536, Statutes of 2012, Chapter 547, Statutes of 2014, Chapter 721, Statutes of 2018, Chapter 207, Statutes of 2023, and not make them consistent with current technology and operational practices, including deleting deadlines that have passed. This alternative, however, is not reasonable because it would not make the UST Regulations consistent with current technology and operational practices, including deleting deadlines that have passed. If the State Water Board does not amend the UST Regulations to make them consistent with the current language of the Health and Safety Code, in particular the requirement in Health and Safety Code section 25292.05 requiring the permanent closure of all single-walled USTs by December 31, 2025, UST owners and operators and their contractors will not have a clear understanding of the requirements for installing, operating, and maintaining a UST. Additionally, UST regulators may not apply the requirements for installing, operating, and maintaining a UST consistently across the state if they are not specifically set forth in the UST Regulations. The cost of implementing this alternative is $0, however, it is an unacceptable alternative due to the details discussed above.

Alternative 3

The State Water Board considered making no changes to the UST Regulations. This alternative, however, is not reasonable because it would not make the UST Regulations: 1) consistent with current technology and operational practices, including deleting deadlines that have passed; or 2) consistent with amendments to the Health and Safety Code enacted by Chapter 536, Statutes of 2012, Chapter 547, Statutes of 2014, Chapter 721, Statutes of 2018, Chapter 207, Statutes of 2023. If the State Water Board does not amend the UST Regulations to make them consistent with current technology and operational practices, including deleting deadlines that have passed and the current language of the Health and Safety Code UST owners and operators and their contractors will not have a clear understanding of the requirements for installing, operating, and maintaining a UST. Additionally, UST regulators may not apply the requirements for installing, operating, and maintaining a UST consistently across the state if they are not specifically set forth in the UST Regulations. The cost of implementing this alternative is $0, however, it is an unacceptable alternative due to the details discussed above.

3. What are the quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives?

The quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives are estimating: 1) the difference in the number of releases of hazardous substance from USTs that would occur; 2) the cost of cleaning up a release of a hazardous substance from a UST; and 3) rates at which equipment fails to function properly requiring upgrade. Aside from environmental benefits of the proposed regulations, owners and operators also benefit financially from fewer releases of hazardous substances from USTs due to the cost of cleaning up releases and reduced frequencies of lost sellable product.

4. Where regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures, explain why regulation does not use performance standards to lower compliance costs.

The proposed regulations use performance-based requirements where appropriate to reduce compliance costs. This also provides individuals and businesses with greater flexibility in testing their UST systems with developing methods that are more affordable and reliable.

E. Major Regulations

2. Briefly describe each alternative for which a cost-effectiveness analysis was performed:

Alternative 1

The State Water Board considered only amending the regulations to make them consistent with current technology and operational practices, including deleting deadlines that have passed, and not make them consistent with amendments to the Health and Safety Code enacted by Chapter 536, Statutes of 2012, Chapter 547, Statutes of 2014, Chapter 721, Statutes of 2018, Chapter 207, Statutes of 2023. Implementing this alternative costs $13,320,000 less than implementing the proposed regulations, but the proposed regulations would not be consistent with Health and Safety Code.

Alternative 2

The State Water Board considered only amending the UST Regulations to make them consistent with amendments to the Health and Safety Code enacted by Chapter 536, Statutes of 2012, Chapter 547, Statutes of 2014, Chapter 721, Statutes of 2018, Chapter 207, Statutes of 2023, and not make them consistent with current technology and operational practices, including deleting deadlines that have passed.

3. Describe the estimated cost and the cost effectiveness ratio of the alternatives:

Alternative 1 is unacceptable as discussed in section D above. It is difficult to establish a monetary value to consistent statewide implementation of the regulations consistent with statutory requirements.

Alternative 2 is unacceptable as discussed in section D above. It is difficult to establish a monetary value to the benefits of improved human health, safety, and the environment that the proposed regulations provide.

5. What are the benefits of the regulations, including, but not limited to, the benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identifies by the agency?

The proposed regulations benefit the health and welfare of California residents, worker safety, and the state's environment consistent with the established policy of the State recognizing the human right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. These benefits are difficult to quantify in dollar value, however, the loss of a source of safe, clean water and the cost of providing replacement water can be significant.

A. Fiscal Effect on Local Government

6. Describe the fiscal impact on local government.

The proposed regulations specify new notification requirements and streamline existing reporting requirements. Electronic notification is via the internet using readily available technology; and it is expected that this process will be automated and not incur fiscal impact.

B. Fiscal Effect on State Government

4. Describe the fiscal impact on State government.

The proposed regulations specify new notification requirements and streamline existing reporting requirements. Electronic notification is via the internet using readily available technology; and it is expected that this process will be automated and not incur fiscal impact.

TABLES

Table 1

Regulatory Lifetime Estimates of Statewide Dollar Costs				
Proposed Change	**Unit Cost**	**Total Units Affected**	**Lifetime (Years)**	**Lifetime Cost**
Anchoring New UST Installations	$15,000	888	25	$13,320,000
Replacing failed single-walled spill containers with secondarily contained spill containers	$13,000	6,500	25	$70,730,112
Replacing failed secondarily contained spill containers with new secondarily contained spill containers	-$11,500	6,500	25	-$72,623,381
Replacing failed float and chain mechanisms with stand-alone sensors	$350	5,400	25	$1,882,860
Lifetime sum:				**$13,309,590**

Table 2

Proposed Change	Year	Units Annually	Unit Cost	Annual Cost
Anchoring new UST installations	2026	80	$15,000	$1,200,000
	2027	74	$15,000	$1,110,000
	2028	67	$15,000	$1,005,000
	2029	61	$15,000	$915,000
	2030	54	$15,000	$810,000
	2031	48	$15,000	$720,000
	2032	41	$15,000	$615,000
	2033	35	$15,000	$525,000
	2034	28	$15,000	$420,000
	2035	25	$15,000	$375,000
	2036	25	$15,000	$375,000
	2037	25	$15,000	$375,000
	2038	25	$15,000	$375,000
	2039	25	$15,000	$375,000
	2040	25	$15,000	$375,000
	2041	25	$15,000	$375,000
	2042	25	$15,000	$375,000
	2043	25	$15,000	$375,000
	2044	25	$15,000	$375,000
	2045	25	$15,000	$375,000
	2046	25	$15,000	$375,000
	2047	25	$15,000	$375,000
	2048	25	$15,000	$375,000
	2049	25	$15,000	$375,000
	2050	25	$15,000	$375,000
Lifetime Sum:		**888**		**$13,320,000**

Table 3

Replacing Single-walled Spill Containers with New Secondarily Contained Containers					
Year	**Existing Units**	**Annual Replacement Rate**	**Replaced Annually**	**Unit Cost**	**Annual Cost**
2026	6,500	7%	455	$13,000	$5,915,000
2027	6,045	7%	423	$13,000	$5,500,950
2028	5,622	7%	394	$13,000	$5,115,884
2029	5,228	7%	366	$13,000	$4,757,772
2030	4,862	7%	340	$13,000	$4,424,728
2031	4,522	7%	317	$13,000	$4,114,997
2032	4,205	7%	294	$13,000	$3,826,947
2033	3,911	7%	274	$13,000	$3,559,061
2034	3,637	7%	255	$13,000	$3,309,926
2035	3,383	7%	237	$13,000	$3,078,232
2036	3,146	7%	220	$13,000	$2,862,755
2037	2,926	7%	205	$13,000	$2,662,362
2038	2,721	7%	190	$13,000	$2,475,997
2039	2,530	7%	177	$13,000	$2,302,677
2040	2,353	7%	165	$13,000	$2,141,490
2041	2,189	7%	153	$13,000	$1,991,586
2042	2,035	7%	142	$13,000	$1,852,175
2043	1,893	7%	133	$13,000	$1,722,522
2044	1,760	7%	123	$13,000	$1,601,946
2045	1,637	7%	115	$13,000	$1,489,810
2046	1,523	7%	107	$13,000	$1,385,523
2047	1,416	7%	99	$13,000	$1,288,536
2048	1,317	7%	92	$13,000	$1,198,339
2049	1,225	7%	86	$13,000	$1,114,455
2050	1,139	7%	80	$13,000	$1,036,443
Lifetime Sum:					$70,730,112

Table 4

Replacing Secondarily Contained Spill Containers with New Secondarily Contained Spill Containers						
Year	**Existing Units**	**Annual Replacement Rate**	**Replaced Annually**	**Unit Savings**	**Annual Savings**	**Annual Cost + Annual Savings**
2026	455	7%	32	-$11,500	-$366,275	$5,548,725
2027	878	7%	61	-$11,500	-$706,911	$4,794,039
2028	1,272	7%	89	-$11,500	-$1,023,702	$4,092,182
2029	1,638	7%	115	-$11,500	-$1,318,318	$3,439,454
2030	1,978	7%	138	-$11,500	-$1,592,311	$2,832,417
2031	2,295	7%	161	-$11,500	-$1,847,124	$2,267,873
2032	2,589	7%	181	-$11,500	-$2,084,100	$1,742,847
2033	2,863	7%	200	-$11,500	-$2,304,488	$1,254,572
2034	3,117	7%	218	-$11,500	-$2,509,449	$800,477
2035	3,354	7%	235	-$11,500	-$2,700,063	$378,169
2036	3,574	7%	250	-$11,500	-$2,877,333	-$14,578
2037	3,779	7%	265	-$11,500	-$3,042,195	-$379,832
2038	3,970	7%	278	-$11,500	-$3,195,516	-$719,519
2039	4,147	7%	290	-$11,500	-$3,338,105	-$1,035,428
2040	4,311	7%	302	-$11,500	-$3,470,713	-$1,329,223
2041	4,465	7%	313	-$11,500	-$3,594,038	-$1,602,452
2042	4,607	7%	322	-$11,500	-$3,708,730	-$1,856,556
2043	4,740	7%	332	-$11,500	-$3,815,394	-$2,092,872
2044	4,863	7%	340	-$11,500	-$3,914,591	-$2,312,646
2045	4,977	7%	348	-$11,500	-$4,006,845	-$2,517,035
2046	5,084	7%	356	-$11,500	-$4,092,641	-$2,707,118
2047	5,183	7%	363	-$11,500	-$4,172,431	-$2,883,895
2048	5,275	7%	369	-$11,500	-$4,246,636	-$3,048,297
2049	5,361	7%	375	-$11,500	-$4,315,646	-$3,201,191
2050	5,441	7%	381	-$11,500	-$4,379,826	-$3,343,383
Lifetime Sum:					-$72,623,381	**-$1,893,270**

Table 5

Existing Under-Dispenser Containment Monitoring Replacement					
Year	**Existing Units**	**Annual Replacement Rate**	**Replaced Annually**	**Unit Cost**	**Annual Cost**
2026	5,400	20%	1,080	$100	$108,000
2027	4,320	20%	864	$100	$86,400
2028	3,456	20%	691	$100	$69,120
2029	2,765	20%	553	$100	$55,296
2030	2,212	20%	442	$100	$44,237
2031	1,769	20%	354	$100	$35,389
2032	1,416	20%	283	$100	$28,312
2033	1,132	20%	226	$100	$22,649
2034	906	20%	181	$100	$18,119
2035	725	20%	145	$100	$14,496
2036	580	20%	116	$100	$11,596
2037	464	20%	93	$100	$9,277
2038	371	20%	74	$100	$7,422
2039	297	20%	59	$100	$5,937
2040	237	20%	47	$100	$4,750
2041	190	20%	38	$100	$3,800
2042	152	20%	30	$100	$3,040
2043	122	20%	24	$100	$2,432
2044	97	20%	19	$100	$1,946
2045	78	20%	16	$100	$1,556
2046	62	20%	12	$100	$1,245
2047	50	20%	10	$100	$996
2048	40	20%	8	$100	$797
2049	32	20%	6	$100	$638
2050	26	20%	5	$100	$510
Lifetime Sum:					*$537,960*

Table 6

Proposed Under-Dispenser Containment Monitoring Replacement						
Year	**Existing Units**	**Annual Replacement Rate**	**Replaced Annually**	**Unit Cost**	**Annual Cost**	**Cost Difference**
2026	5,400	20%	1,080	$450	$486,000	$378,000
2027	4,320	20%	864	$450	$388,800	$302,400
2028	3,456	20%	691	$450	$311,040	$241,920
2029	2,765	20%	553	$450	$248,832	$193,536
2030	2,212	20%	442	$450	$199,066	$154,829
2031	1,769	20%	354	$450	$159,252	$123,863
2032	1,416	20%	283	$450	$127,402	$99,090
2033	1,132	20%	226	$450	$101,922	$79,272
2034	906	20%	181	$450	$81,537	$63,418
2035	725	20%	145	$450	$65,230	$50,734
2036	580	20%	116	$450	$52,184	$40,587
2037	464	20%	93	$450	$41,747	$32,470
2038	371	20%	74	$450	$33,398	$25,976
2039	297	20%	59	$450	$26,718	$20,781
2040	237	20%	47	$450	$21,375	$16,625
2041	190	20%	38	$450	$17,100	$13,300
2042	152	20%	30	$450	$13,680	$10,640
2043	122	20%	24	$450	$10,944	$8,512
2044	97	20%	19	$450	$8,755	$6,809
2045	78	20%	16	$450	$7,004	$5,448
2046	62	20%	12	$450	$5,603	$4,358
2047	50	20%	10	$450	$4,483	$3,486
2048	40	20%	8	$450	$3,586	$2,789
2049	32	20%	6	$450	$2,869	$2,231
2050	26	20%	5	$450	$2,295	$1,785
Lifetime Sum:					$2,420,820	**$1,882,860**