

PROPOSED REGULATIONS ON THE CRITERIA FOR THE ISSUANCE OF A HAZARDOUS WASTE FACILITY PERMIT

I. BACKGROUND

Senate Bill No. 673

Senate Bill No. 673, Chapter 611, Statutes of 2015 (SB 673, Lara)¹ has been codified in section 25200.21 of the California Health and Safety Code relating to hazardous waste. This law requires the Department of Toxic Substances Control (DTSC) to update criteria for use in determining whether to issue a new or modified hazardous waste facilities permit or a renewal of a hazardous waste facility (facility) permit by January 1, 2018.

Section 25200.21 of the Health & Safety Code states:

“On or before January 1, 2018, the department shall adopt regulations establishing or updating criteria used for the issuance of a new or modified permit or renewal of a permit, which may include criteria for the denial or suspension of a permit. In addition to any other criteria the department may establish or update in these regulations, the department shall consider for inclusion as criteria all of the following:

(a) Number and types of past violations that will result in a denial.

(b) The vulnerability of, and existing health risks to, nearby populations. Vulnerability and existing health risks shall be assessed using available tools, local and regional health risk assessments, the region’s federal Clean Air Act attainment status, and other indicators of community vulnerability, cumulative impact, and potential risks to health and well-being.

(c) Minimum setback distances from sensitive receptors, such as schools, child care facilities, residences, hospitals, elder care facilities, and other sensitive locations.

(d) Evidence of financial responsibility and qualifications of ownership.

(e) Provision of financial assurances pursuant to Section 25200.1.

(f) Training of personnel in the safety culture and plans, emergency plans, and maintenance of operations.

(g) Completion of a health risk assessment.”

Proposed Regulations for Hazardous Waste Facility Permitting Criteria

DTSC is proposing to implement the rulemaking activities in two tracks. As part of the first track, DTSC is proposing regulatory language to address five main provisions

- 1) a facility’s compliance history (Violation Scoring Procedure);
- 2) data for a community involvement profile;
- 3) financial assurance and financial responsibility;

¹ Available at http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB673

- 4) training for facility personnel; and
- 5) a human health risk assessment for facility operations. DTSC will address criteria for vulnerable populations, cumulative impacts, and setback distances from locations for sensitive receptors in another rulemaking next year.

1. Facility's compliance history (Violation Scoring Procedure) – The first provision of these proposed regulations is a violations scoring procedure (VSP) for hazardous waste facilities. In general, the VSP provides a uniform standard for evaluating compliance history by specifying the components to be considered in evaluating for permit decisions. The VSP score will be used as a diagnostic or screening tool to identify the facilities with most problematic compliance histories. When permit applications are submitted or after each inspection, DTSC will calculate a score for each Class I violation and a total VSP score for each inspection. DTSC will then calculate an average of all inspections that occur during the previous 10 years that is roughly equivalent to the period of time a permit is typically in effect.

DTSC will then assign a compliance tier to each facility based on its score. A conditionally acceptable score will trigger a mandatory audit. Furthermore, DTSC may also impose additional mitigation measures if necessary to ensure the protection of human health and the environment. For example, DTSC may decide to shorten the length of the permit from ten years down to five. If a facility VSP score is categorized as unacceptable, then DTSC is required to evaluate the entire compliance history of the owner or operator of the facility. This may result in denial, revocation, suspension, or issuance of the permit. An owner or operator may appeal of DTSC's permit decision based on an unacceptable compliance history.

Post Hearing Changes to the proposed regulation that may impact the economic impact statement

- Dispute resolution is now provided for violation scores from inspections that pre-date the regulations.

2. Data for a community involvement profile – This provision requires that owners or operators that submit a permit application concurrently complete a community involvement profile. Permit applicants must prepare this profile mostly based on existing United States census data. The profile includes a summary of the surrounding community's demographic characteristics, community interest, community concerns, and the identification of other offsite sources of potential exposures to hazardous waste or hazardous materials. This includes any entity in the surrounding community that generates hazardous waste or stores hazardous materials.

Post Hearing Changes to the proposed regulation that may impact the economic impact statement

- None.

3. Financial assurance and financial responsibility – The proposed language strengthens various financial assurance mechanisms to ensure that funds will be available when needed. Mechanism failures can result in significant closure, post-closure, and corrective action delays and may result in federal or state governments assuming the financial burden for site cleanups. This provision will modify the existing financial tests. Specifically, all financial tests are updated to account for changing economic conditions and inflation factors. Additionally, when insurance is used as a financial assurance mechanism, the insurance companies are required to be licensed or authorized in the State of California. This strengthens financial assurance by making this insurance mechanism subject to the relatively strict reporting and supervision requirements of the California Department of Insurance.

Lastly, the regulations clarify the point at which financial assurance for corrective action is required. There are existing laws and regulations that make clear that corrective action is required for all hazardous waste facilities. This provision clarifies when and how the funds are secured.

Post Hearing Changes to the proposed regulation that may impact the economic impact statement

- The requirement to provide a 25% down payment for corrective action has been eliminated.
- The requirement for payment is triggered by the completion of a Corrective Measures Implementation Workplan.
- The requirement to fund 20% of the money needed to satisfy the Financial Means Test with a trust fund has been eliminated as unnecessary.

4. Training for facility personnel – The regulations also update the existing requirements for training. Most of the amended language make clear the existing training standards. The proposal includes a new requirement for a facility owner or operator to submit a yearly training certification. This annual submittal should reflect the most up-to-date listing of facility personnel that handle hazardous waste and a summary of training that demonstrate that training requirements have been met on a yearly basis.

Post Hearing Changes to the proposed regulation that may impact the economic impact statement

- Most of the new training requirements are now biennial instead of annual.

5. Human health risk assessment (HRA) for facility operations – The proposal sets up a tiered approach to complete an HRA. Most facilities are required to submit an HRA Questionnaire that initiates the stepwise process. DTSC will review the questionnaire and determine the need for any of the following: Baseline HRA, Screening Level HRA, or no further action.

If an owner or operator is required to complete the next step of the HRA requirement. This entails completing either a streamlined Screening Level HRA or a more comprehensive Baseline HRA. A Screening Level HRA uses simple exposure pathways assumptions and site specific contaminant levels and to compare these with regulatory health risk screening levels. A baseline HRA will use site specific contaminant levels based on sampling and emission modeling to estimate reasonable maximum exposure. The Baseline HRA will use more complex exposure pathways to receptors to calculate cumulative risks for cancer and non-cancer health impacts – all toxic substances – all pathways.

Post Hearing Changes to the proposed regulation that may impact the economic impact statement

- Postclosure facilities are now exempt from this requirement.

Hazardous Waste Facility Universe in California

Although there are five permitting authorization tiers in California, all 113 treatment, storage, and disposal hazardous waste facilities fall into two tiers, Resource Conservation and Recovery Act (RCRA) permits or standardized permits.

The permitting tiers match the statutory/regulatory requirements imposed upon each category of hazardous waste facility to the degree of risk posed by them. The two highest permitting tiers, in descending order of regulatory oversight, are:

- The Full Permit Tier - All facilities requiring a RCRA federal permit, and selected non-RCRA activities pursuant to Title 22 California Code of Regulations. A RCRA equivalent permit is required for all RCRA regulated facilities, and for any state regulated incinerators, land disposal facilities, and used oil refineries; and
- The Standardized Permit Tier - All facilities that manages waste not regulated under RCRA, but regulated as a hazardous waste by the State of California. These facilities are non-RCRA, offsite treatment or storage and include, but are not limited to, recyclers, oil transfer stations, and precious metals recyclers.

Hazardous waste facilities are also described by their activities and are described below:

- Treatment - Using various processes, such as incineration or oxidation, to alter the character or composition of hazardous wastes. Some treatment processes enable waste to be recovered and reused in manufacturing settings, while other treatment processes dramatically reduce the amount of hazardous waste.
- Storage - Temporarily holding hazardous wastes until they are treated or disposed. Hazardous waste is commonly stored prior to treatment or disposal, and must be stored in containers, tanks, containment buildings, drip pads, waste piles, or surface impoundments that comply with hazardous waste regulations.
- Disposal - Permanently containing hazardous wastes. The most common type of disposal facility is a landfill, where hazardous wastes are disposed of in carefully constructed units designed to protect groundwater and surface water resources.
- Postclosure - Facilities where waste remains in place after the completion of closure must conduct monitoring and maintenance activities to ensure the integrity of the liners and leak detection systems and prevent or control releases to the environment.

Revised Number of Facilities

The number of California hazardous waste facilities was 113 and is now 109. They are categorized as follows for purposes of this analysis:

- 3 Landfills;
- 27 Postclosure facilities;
- 29 Standardized Permits
- 22 Storage facilities; and
- 28 Treatment facilities (12 small and 16 large)

Existing Regulatory Baseline

The Hazardous Waste Control Law and RCRA were enacted because of the potential risks posed by the treatment, storage, and disposal of large volumes of hazardous waste at treatment, storage, and disposal facilities (TSDFs). Considering these risks, federal and state law makers felt that TSDF management activities needed to be closely regulated to prevent spills, accidents, and mechanical failures.

As a result, TSDFs are required to obtain permission, in the form of a hazardous waste facility permit, which establishes the administrative and technical conditions under which hazardous waste at the facility must be managed.

A hazardous waste facility permit is a legally binding document that establishes the hazardous waste management activities a facility can conduct and the conditions under which it can conduct them. The permit includes applicable regulations from Division 4.5 of Title 22 of the California Code of Regulations and Parts 260 –Parts 270 of Title 40 of the Code of Federal Regulations. These facility requirements:

- An outline of the facility’s design and operation;
- Safety standards;
- A description of facility performance activities (e.g., monitoring and reporting); and
- A description of financial responsibilities.

Permits typically require facilities to develop an emergency plan and waste analysis plan, find insurance and financial backing, and train employees to handle hazards. Permits can also include specific facility requirements, such as groundwater monitoring. DTSC has the authority to issue or deny permits and is responsible for monitoring the facility. They ensure that the facility is in compliance with the conditions stated in the permit. According to its regulations, a TSDF cannot operate without a permit, with a few exceptions².

Regarding the main provisions of this proposed regulation, the following briefly describes existing baseline requirements.

1. Facility’s compliance history (Violation Scoring Procedure) – DTSC’s Enforcement and Emergency Response Division monitors hazardous waste transfer, storage, treatment, and disposal facilities for illegal activity and takes appropriate enforcement action against hazardous waste handlers that violate hazardous waste requirements found through routine inspections, complaint investigations, and focused enforcement initiatives. Completed inspection reports are available to the public on DTSC’s Envirostor database.

There are various statutory provisions³ in the Health and Safety Code that provide authority for denial, suspension, and revocation of permits. For example, section 25186.05 requires DTSC to consider three or more incidents of serious violations for which a person has been found liable or has been convicted within a five-year period as compelling cause to deny, suspend, or revoke the permit. This proposal creates a metric that serves as an indicator to identify facilities with problematic compliance histories. Furthermore, the proposed regulatory text provides additional details as to what is a compelling cause for adverse action on an owner or operator with an “unacceptable” or a “conditionally acceptable” compliance history. In addition, there is a regulatory requirement⁴ that reflects the aforementioned laws regarding permit denial and revocation.

When a Facility VSP Score is determined to be “conditionally acceptable”, a requirement for an audit is mandatory. The owner or operator must hire and pay for an independent third-party auditor that

² <https://www.epa.gov/hwpermitting/what-hazardous-waste-permit>

³ Health & Safety Code, sections 25186, 25186.05, 25186.2, 25186.2.5, 25189.3, and 25200.8

⁴ Title 22, California Code of Regulations, section 66270.43

must complete two audits. This provides an impartial review of the hazardous waste facility's operations to identify problems that may be the cause for noncompliance.

2. Data for a community involvement profile – Currently, assessing the community surrounding a facility is done as part of public participation activities when a draft permit is posted for public comment. There are no regulatory requirements to ensure assessing community concerns occur earlier in the process.

3. Financial assurance and financial responsibility – Currently, regulations for hazardous waste facilities require financial assurance to close and clean-up a hazardous waste facility. All hazardous waste facilities must eventually cease their treatment, storage, or disposal activities. When such operations cease, the owner and operator must close the facility in a way that ensures it will not pose a future threat to human health and the environment. More importantly, owners and operators must have funds available to pay for all activities that ensure proper closure, postclosure, and corrective action.

4. Training for facility personnel – Owners and operators of facilities must ensure appropriate personnel complete classroom or on-the-job training to become familiar with proper hazardous waste management and emergency procedures for the wastes handled at the facility.

5. Human health risk assessment (HRA) for facility operations – Currently, the decision to require an owner or operator to complete an HRA for a hazardous waste facility is made on a facility specific basis. There is no regulatory requirement to complete an HRA.

II. ESTIMATED PRIVATE SECTOR COST ESTIMATES

The cost for each of the provisions is included as Attachment 2. The summary of the cost per year is summarized below in Table 1.

For the economic impact statement calculations, there are two items on the following table that are designated as “cost recovery.” Health and Safety Code section 25205.7 was amended recently to eliminate the option for a flat-rate for hazardous waste facility permit applications submitted after April 1, 2016. Applicants for hazardous waste facility permits must now enter into a written cost reimbursement agreement with DTSC to reimburse DTSC for its costs incurred in processing the application. The proposed regulations add requirements to the permit application that are subject to cost reimbursement and are specified on Table 1 as cost recovery fees for the community profile and the HRA requirements. Salaries used for cost recovery are based on the highest salary rate for the class multiplied by an indirect rate of 169.42% for permitting activities. For example, a staff toxicologist's hourly rate for cost recovery is \$197.00.

Salaries used to calculate the fiscal effect on state government are called fully loaded wage rates and are based on salaries, benefits, plus operating expenses and equipment costs. For example, a staff toxicologist's fully loaded hourly rate is \$83.00.

TABLE 1. Facility Costs

**SUMMARY TABLE –
TOTALS PER YEAR**

	LOW	TYPICAL	HIGH	
VIOLATIONS SCORING PROCEDURE SCORES (VSP)	\$190	\$310	\$750	annual
VSP – DISPUTE DOCUMENT	\$0	\$0	\$9,260	varies
VSP - AUDIT	\$0	\$21,400	\$31,600	varies
COMMUNITY PROFILE	\$3,900	\$5,100	\$7,600	permit application
<i>COMMUNITY PROFILE - Cost Recovery</i>	<i>\$3,400</i>	<i>\$5,100</i>	<i>\$7,700</i>	
FINANCIAL RESPONSIBILITY	\$5,600	\$6,900	\$11,100	permit & annual
TRAINING	\$1,000	\$1,200	\$1,700	annual
HRA – QUESTIONNAIRE	\$8,400	\$10,100	\$13,000	permit application
HRA -NO FURTHER ACTION	\$0	\$0	\$0	permit application
HRA -SCREENING LEVEL	\$28,800			permit application
HRA -SCREENING & BASELINE AVERAGE		\$57,500		permit application
HRA -BASELINE			\$143,900	permit application
<i>HRA – Cost Recovery</i>	<i>\$26,800</i>	<i>\$43,700</i>	<i>\$70,400</i>	

B.1 Total Statewide Dollar Costs That Businesses and Individuals May Incur = \$7,193,000.

This number was calculated by summing the application costs multiplied by 5 years and multiplied by 14 which is the average number of facilities impacted during the first five years.

TABLE 2 Permit Application Costs

PERMIT APPLICATION COSTS	# OF FACILITIES IMPACTED	SMALL	TYPICAL
VIOLATIONS SCORING PROCEDURE SCORES (VSP)	14	\$190	\$310
COMMUNITY PROFILE	14	\$3,900	\$5,100
COMMUNITY PROFILE - Cost Recovery	14	\$3,400	\$5,100
FINANCIAL RESPONSIBILITY	14	\$5,600	\$6,900
HRA – QUESTIONNAIRE	11	\$8,400	\$10,100
HRA -SCREENING & BASELINE AVERAGE	7.5	\$28,800	\$57,300
HRA – Cost Recovery	7.5	\$26,800	\$43,700
TOTAL PERMIT COSTS FOR A TYPICAL FACILITY		\$77,200	\$128,800
Permit costs for the first five years = $(\$310 + \$5,100 + \$5,100 + \$6,900) * 14 * 5$ $+ (\$8,400) * 11 * 5 + (\$57,500 + \$43,700) * 7.5 * 5$			\$7,193,000

This permit application cost is then added to the annual costs. Typical facility annual costs are also multiplied by 5 years or 4 years (if already included in the permit application) and multiplied by the number of facilities impacted during the first five years using average costs. See Table 2 below.

TABLE 3 Annual Facility Costs

ANNUAL FACILITY COSTS	# OF FACILITIES IMPACTED	SMALL	TYPICAL
VIOLATIONS SCORING PROCEDURE SCORES (18/yr.)	18	\$190	\$310
VSP – AUDIT	3		\$21,400
FINANCIAL RESPONSIBILITY (EVERY 2-3 YEARS)	18	\$5,600	\$6,900/3
TRAINING	109	\$1000	\$1,200
TOTAL ANNUAL COSTS FOR A FACILITY		\$3,100	\$3,800
Annual facility costs for the first five years = $(\$310)*18*5 + (\$21,400)*3*5 +$ $(\$6,900)*18*5 + (\$1,200)*109*5$			\$1,624,000

B1.a Initial Cost for Small Business

The initial cost is being equated to the additional permit application cost. During the first five years, about 70 facilities will be submitting permit applications. This initial cost will be about \$76,200 for a small business. Annual costs will include the Violations Scoring Procedure, updating the financial responsibility, and training. The annual ongoing cost is about \$3,100. See Table 3.

B.1.b Initial Cost for a Typical Business

The initial cost is being equated to the additional permit application cost. During the first five years, about 70 facilities will be submitting permit applications. This initial cost will be about \$128,800 for a typical business. Annual costs will include the Violations Scoring Procedure, updating the financial responsibility, and training. The annual ongoing cost is about \$3,800. See Table 3.

Table 4. Facility Costs for Small Businesses and for a Typical Business

FACILITY COSTS**SUMMARY TABLE - TOTALS PER YEAR**

	FACILITY PREPARATION ESTIMATE	
	SMALL BUSINESS	TYPICAL*
VIOLATIONS SCORING PROCEDURE SCORE	\$190	\$310
COMMUNITY PROFILE	\$3,900	\$5,100
COMMUNITY PROFILE – Cost Recovery	\$3,400	\$5,100
FINANCIAL RESPONSIBILITY	\$5,600	\$6,900
HRA – QUESTIONNAIRE	\$8,400	\$10,100
HRA -SCREENING & BASELINE AVERAGE	\$28,800	\$57,500
HRA – Cost Recovery	\$26,800	\$43,700

PERMIT APPLICATION COSTS	\$77,200	\$120,200
VIOLATIONS SCORING PROCEDURE SCORE	\$190	\$310
FINANCIAL RESPONSIBILITY	\$5,600/3	\$6,900/3
TRAINING	\$1,000	\$1,200
ANNUAL COSTS PER FACILITY	\$3,100	\$3,800

Note: The financial responsibility estimate is divided by three because facilities are not inspected every year. The inspection interval may range from 2 to 4 years, so we used a three year interval for this calculation for annual facility cost.

2. SUMMARIZE THE TOTAL STATEWIDE COSTS & BENEFITS FROM THIS REGULATION AND EACH ALTERNATIVES

DTSC considered various alternatives for this regulation and each was either more costly or the cost was unknown. Furthermore, there are one to three alternatives for each of the main provisions. The combinations of all the possibilities are too many to enumerate. Thus the dollar estimates were only calculated to two alternative. Attachment 3 provides additional details as to the other alternatives that were not estimated.

Regulation Proposal Statewide Cost Estimate = \$7,193,000 (See Attachment 2.0)

Total Statewide Cost = permit cost multiplied by 5 years + annual costs for a typical facility multiplied by 5 years.

- The permit costs = (Violations Scoring Procedure + Community Involvement Profile + Community Involvement Profile–Cost Recovery + Financial Responsibility + Health Risk Assessment Questionnaire & Screening Level/Baseline Average) + HRA–Cost Recovery multiplied by 5 years.
- Annual Costs = (Violations Scoring Procedure for remaining facilities + Financial Responsibility for remaining facilities) multiplied by 5 years.

Alternative 1 Statewide Cost Estimate = \$11,036,000 (See Attachment 2.1)

Total Statewide Cost = permit cost multiplied by 5 + annual costs for a typical facility multiplied by 5

This alternative eliminates the tiered approach to the health risk assessment (HRA) and requires that all the facilities complete an HRA Questionnaire and a Baseline HRA. A Baseline HRA is a site specific assessment of the risk that a facility may potentially pose. It includes the use of media specific concentrations and complex exposure pathways. The calculations are the same used for the regulation proposal statewide cost estimate above.

Alternative 2 Statewide Cost Estimate = \$7,214,000 (see Attachment 2.2)

This alternative replaces the Violations Scoring Procedure based on only Class 1 Violations to all violations, including Class 1, Class 2, and minor violations. By expanding the types of violations, more facilities are captured in the Violations Scoring Procedure and increases the number of facilities that will be subject to the VSP on an annual basis two to six times. Over a ten year period, the unique number of facilities impacted averages about three times. However, this puts minor violations on the same level as Class I violations and this dilutes the meaning of the metric. The calculations are the same used for the regulation proposal statewide cost estimate above.

TABLE 5 Number of Violations and Number of Unique Facilities Impacted by VSP

YEAR	NUMBER OF VIOLATIONS AND NUMBER OF UNIQUE FACILITIES IMPACTED			
	VIOLATIONS	UNIQUE	VIOLATIONS	UNIQUE
	CLASS I only	TSDFs	# OF ALL	TSDFs
2016	69	17	158	38
2015	56	10	141	27
2014	10	6	68	24
2013	16	5	101	22
2012	47	9	95	31
2011	14	8	85	28
2010	19	5	86	30

YEAR	NUMBER OF VIOLATIONS AND NUMBER OF UNIQUE FACILITIES IMPACTED			
	VIOLATIONS	UNIQUE	VIOLATIONS	UNIQUE
	CLASS I only	TSDFs	# OF ALL	TSDFs
2009	34	10	101	38
2008	19	9	102	40
2007	9	7	76	34

Unique TSDFs (10 yrs.)		40	81
Average (10 yrs.)		9	31
Yearly Range		5-17	22-40
Initial Year	A	40	81
Subsequent Years	B	9	31
Average - 5 Years	$(A + 4*B)/5$	15	41

Benefits of the Regulation Proposal

Statewide benefits could not be quantified but include all of the following improvements:

- Normalization of the evaluation of compliance history for hazardous waste facilities and consistency with DTSC's existing penalty regulations set out in Title 22, California Code of Regulations, Division 4.5, Chapter 22, Article 3;
- Enhancement of facility compliance by providing an enforcement metric to facilities that encourages owners and operators to improve their compliance with applicable requirements. Compliance scores will be continually updated and over time, compliance performance trends will be reflected in this metric. The goal is a lack of, or reduced number of, violations resulting in lower scores;
- Clarification of the factors and the procedures to be used when making permit decisions;
- Enhancement of the current financial assurance requirements to protect against changing economic conditions, long time frames, and inflation, thus increasing the likelihood that State funds will not be needed to close facilities in a protective manner;
- Health risk characterization of facility operations to ensure greater protection of facility's workers and the surrounding communities;
- Data collection of population characteristics to identify vulnerable populations and address both environmental justice and public participation opportunities; and
- Annual training of facility personnel to improve safety and compliance with the Hazardous Waste Control Law and the implementing regulations.

II.B. ESTIMATED FISCAL EFFECT ON STATE GOVERNMENT

1. Additional expenditures in the current State Fiscal Year

See Table 2 of Attachment 2.0, which is the summary of state expenditures on a yearly basis. This table summarizes the costs for each of the main provisions. Each average cost per facility is multiplied by the number of facilities impacted on an annual basis. The averages and the impacted number of facilities is derived from the spreadsheets that are detailed in Attachment 2.0.

NOTE: The regulations are anticipated to become effective on April 1, 2018, so that only one quarter of FY 17-18 will be impacted. The yearly total was divided by 4 to arrive at \$98,000.

TABLE 6. Total State Costs for DTSC

DTSC TOTAL COST PER YEAR - ALL FACILITIES			
	# of Facilities Impacted	Average Cost per Facility	TOTAL ANNUAL COST
VSP SCORE	32	\$1,300	\$41,600
VSP AUDIT	3	\$4,100	\$12,300
COMMUNITY PROFILE	13	\$1,500	\$19,500
FINANCIAL RESPONSIBILITY	27	\$2,300	\$63,000
TRAINING	109	\$227	\$25,000
HRA QUESTIONNAIRE	11	\$5,100	\$55,800
HRA SCREENING	6	\$10,400	\$62,600
HRA BASELINE	1.5	\$22,300	\$33,500
			\$312,400
For 2nd half of FY 18-19			\$156,200

III. ASSUMPTIONS

The following assumptions are broken down into general assumptions and more specific assumptions for each of the main provisions stated above. The state hourly rates are the fully loaded wage rate with benefit loading multipliers. The hourly staff rate for private are based on U.S. General Services Administration's Contract-Awarded Labor Category (CALC) which are the fully burdened wages representative of the current fiscal year. The U.S. government uses this data to award federal contracts.

Hourly Staff Wage Rates (Fully Loaded)

These hourly staff wage rates are different than the contract estimation rates that are used to calculate cost reimbursement agreements for a hazardous waste facility permit application. For the purposes of

recovering DTSC's costs for a processing a permit application, hourly rates for DTSC staff include, direct costs, indirect costs and pro rata costs pursuant to Health and Safety Code section 25206.1 et seq.

GENERAL

TABLE 7 Hourly Rate for Staff Hours

	Hourly Rate for Staff Hours	
	PRIVATE (using CALC rates ⁵⁶)	DTSC
TECHNICAL STAFF		
- Environmental Scientist	\$91	\$57
- Environmental Engineer	\$97	
- Environmental Scientist or Engineer	Avg = \$94	
- Senior Environmental Consultant	\$97	
- Hazardous Substance Engineer		\$76
- Toxicologist	\$109	\$83
CLERICAL STAFF		
- Staff Analyst		\$61
MANAGEMENT		
- Environmental Management	\$109	\$98

The burden of these requirements include the total time, effort, or financial resources expended by an owner or operator to generate, maintain, retain, disclose, or provide information to or for DTSC. This includes the time needed to review regulations, prepare submittals, maintain information, provide information, adjust the existing ways to comply with any previously applicable instructions and requirements, and train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Facility's Compliance History (Violation Scoring Procedure)

- The Facility VSP Score covers ten years of Class I violations.
- Postclosure facilities are exempt.
- Estimated number of facilities potentially impacted per year is 82 facilities. However, not all facilities will receive a Class I violation. Only about half of the facilities have received Class I violations in the last 10 years.
- For the first year of implementation, DTSC will calculate about 55 Facilities VSP Scores.
- In subsequent years, DTSC will rescore about 30 facilities per year.
- The facilities will be scored by September 30 of each year.

⁵ CALC is a U.S. General Services Administration's database. The CALC (Contract Awarded Labor Category) tool searches awarded hourly rate prices on the eight GSA professional services schedules and returns comparable labor categories and prices based on search criteria and filters used.

⁶ <https://calc.gsa.gov/?q=environmental%20scientist> = average fully burdened rate = \$91; <https://calc.gsa.gov/?q=environmental%20engineer> = average fully burdened rate = \$97; and <https://calc.gsa.gov/?q=environmental%20manager> = average fully burdened rate = \$109 (accessed 9/12/2017)

- For the VSP Audits, a certain number of facilities with high Facility VSP Scores will be required to complete an audit. This could potentially result in 1 to 3 audits every year.

Data for a community involvement profile

- Hazardous waste facility permits are valid for a period of ten years.
- Estimated number of facilities impacted per year is dependent on number of yearly permit applications. This number has ranged from 6 to 15 a year. DTSC has been projected an average of 14 permit applications per year for the next five years. However, incoming applications vary and may be higher.
- This requirement is triggered when a permit application is submitted to DTSC. This number varies on a yearly basis. Due to historical efforts to address a backlog of permit applications, permit decisions are not evenly distributed over the ten-year cycle. DTSC expects to receive 57 renewal applications for expiring permits in the four-year period beginning with the current fiscal year FY17-18. Therefore, the estimate for permit renewal decisions for the next five fiscal years are as follows to address these incoming new applications and the existing backlog:
 - FY 17-18 16 applications
 - FY 18-19 16 applications
 - FY 19-20 15 applications
 - FY 20-21 12 applications
 - FY 21-22 10 applications

Financial assurance and financial responsibility

- DTSC estimates that the number of facilities impacted per year for financial responsibility is about 32. This includes the following:
 - Some of the financial reviews are dependent on number of yearly permit applications. Permit applications have ranged from 6 to 15 a year and are projected to be 14 permit applications per year for the next five years. However, incoming applications vary and may be higher.
 - In addition, DTSC completes about 16 to 19 financial reviews of permitted hazardous waste facilities.
- The financial responsibility is not required for federal facilities.

4. Training for facility personnel

- Estimated number of facilities impacted per year: 109

This requirement will affect all 109 facilities each year and each facility will be required to submit one certification. The facilities have been divided into four categories based on total number of employees for each establishment. The data for California only accounts for 96 facilities, so we prorated the percentages to estimate the breakdown for the 109 known California hazardous waste facilities:

TABLE 8. Breakdown of Hazardous Waste Facility by Employment Size

	EMPLOYMENT SIZE	NUMBER OF ESTABLISHMENTS	PERCENT OF TOTAL	ACTUAL NUMBER OF HAZARDOUS WASTE FACILITIES IN CALIFORNIA -prorated by the percent of total
1	1-9	52	55%	59
2	10-49	31	33%	36
3	50-99	8	8%	9
4	>100	4	4%	5
	TOTAL	95		109

TABLE 9 Summary of Establishments Listed by Employment and by Legal Form of Organization

SECTOR NAME - Hazardous Waste Treatment & Disposal NAICS – 562211 GEOGRAPHIC AREA – California				
EMPLOYMENT SIZE	NUMBER OF ESTABLISHMENTS		LEGAL FORM OF ORGANIZATION	NUMBER OF ESTABLISHMENTS
1-4	31		Corporations	61
5-9	21		S-Corporations	24
10-19	9		Individual Proprietorships	3
20-49	23		Partnerships	7
50-99	8		Non-profit	1
100-249	3			
250-499	1			
<i>Source: 2012 County Business Patterns and 2012 Economic Census, available at https://thedataweb.rm.census.gov/TheDataWeb_HotReport2/econsnapshot/2012/snapshot.hrml?NAICS=562211</i>				

5. Human health risk assessment (HRA) for facility operations

- Estimated number of facilities impacted per year: Dependent on number of yearly permit applications. DTSC has projected about 14 permit applications per year for the next five years.
 - All applications must be submitted with a HRA Questionnaire.
 - About 4 to 9 will be required to follow up with a Screening Level HRA.
 - About 1 to 2 each year will be required to follow up with a Baseline HRA.

All facilities will be required to submit an HRA Questionnaire when submitting a permit application. However, based on the review of the information submitted, there are three outcomes: 1) the owner or operator has no further action required; 2) the owner or operator has to complete a screening level HRA; or 3) the owner or operator has to complete a Baseline HRA. It is estimated that most (58%) of the facilities will have to complete a Screening Level HRA, more complex facilities will have to complete a Baseline HRA (28%), and a few (12%) may meet the HRA requirement by simply completing the HRA Questionnaire.

Work Load Standards

The work load standards are loosely based on existing work load standards for various permitting activities. Some of the activities we are proposing are new and DTSC has not established work load standards.

TABLE 10 Work Load Standard for Owners or Operators of a Hazardous Waste Facility

OWNER OR OPERATORS OF HAZARDOUS WASTE FACILITIES	Small	Medium	Large
1. VIOLATIONS SCORING PROCEDURE			
Receipt and filing of document	2		8
2. COMMUNITY INVOLVEMENT PROFILE			
Preparing profile	32	52	72
Review of profile document	8	8	8
3. FINANCIAL RESPONSIBILITY			
Additional time to update financial documents	60	120	120
Management's review of documents	8	16	16
4. TRAINING			
Verifying training records and preparing certification document.	8	12	16
Review of certification document and signature.	2	2	2
5. HEALTH RISK ASSESSMENT			
Questionnaire – Preparation	80	120	120
Review of HRA questionnaire	8	16	16
Screening Level HRA – Preparation of work plan & final report	240	360	480
Approval of work plan and review of Screening Level HRA report	24	40	40
Baseline HRA – Preparation	640	960	1280

TABLE 11 Work Load Standard for DTSC Staff

DTSC	Small	Medium	Large
1. VIOLATIONS SCORING PROCEDURE			
Calculation of VSP score	16		28
Management briefing	2		4
2. COMMUNITY INVOLVEMENT PROFILE			
Receipt and review of document	16	24	36
3. FINANCIAL RESPONSIBILITY			
Additional time to update financial documents	20	40	80
Management briefing	2	2	4
4. TRAINING			
Receipt and review of document	2	4	6
5. HEALTH RISK ASSESSMENT			
<u>HRA Questionnaire</u> – Review and recommendation of for DTSC determination	40	60	80
Management review of HRA recommendations and determination for screening or baseline HRA	4	4	4
<u>Screening Level HRA Work Plan & Screening Level HRA</u> – Review of work plan, supplemental request for additional information, review of Screening Level HRA, and recommendation for DTSC determination	80	120	160
Management review of Screening Level HRA recommendations and determination for baseline HRA or acceptance & no further action	8	12	12
<u>Baseline HRA Work Plan & Baseline HRA</u> – Review of work plan , supplemental request for additional information, review of Baseline HRA, and recommendation for DTSC determination	96	132	240
Management review of Baseline HRA recommendations and determination for acceptance or rejection.	8	16	24

Explicit Costs for Additional Requirements

VIOLATIONS SCORING PROCEDURE (VSP)	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		19	82	
ANNUAL Estimate of Impacted Facilities	A	0	11	10	4	6	1	32	25		7	32	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$57		\$57		
Staff hours	C	0	2	2	2	8	8		16		28		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	0	0	0	0	0		2		4		
Cost per facility = B*C + D*E	F	\$0	\$190	\$190	\$190	\$750	\$750		\$1,110		\$1,990		
Cost for each category = A*F	G	\$0	\$2,090	\$1,900	\$760	\$4,500	\$750	\$10,000	\$27,750		\$13,930	\$41,680	
Average cost per facility = G/A	H							\$310				\$1,300	
Total Annual Cost = A * H												\$9,900	\$41,600
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$4,300	\$5,000			\$13,000	\$20,800
ANNUAL INSPECTIONS & VSP - 16 TO 19								\$5,000	\$5,900			\$21,000	\$25,000
ANNUAL TOTAL PER YEAR - 26 to 35 FACILITIES								\$8,100	\$10,900			\$34,000	\$46,000

VSP - DISPUTE DOCUMENT	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		19	82	
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	3	1	13	9		4	13	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$77		\$77		
Staff hours	C	0	80	80	80	80	80		16		28		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	16	16	16	16	16		40		40		
Cost per facility = B*C + D*E	F	\$0	\$9,260	\$9,260	\$9,260	\$9,260	\$9,260		\$5,150		\$6,080		
Cost for each category = A*F	G	\$0	\$37,040	\$27,780	\$18,520	\$27,780	\$9,260	\$120,380	\$46,350		\$24,320	\$70,670	
Average cost per facility = G/A	H							\$9,260				\$5,400	
Total Annual Cost = A * H												\$120,400	\$70,200
INSPECTIONS WITH CLASS 1 VIOLATIONS RANGE PER YEAR - 8 to 18 TSDFs								\$148,200	\$222,200			\$86,400	\$129,600

VSP - AUDITS	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		20	83	
ANNUAL Estimate of Impacted Facilities	A	0	1	0	1	1	0	3	2		1	3	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$57		\$57		
Staff hours	C	0	96	96	186	280	280		40		80		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	20	20	36	48	48		8		16		
Cost per facility = B*C + D*E	F	\$0	\$11,200	\$11,200	\$21,400	\$31,600	\$31,600		\$3,100		\$6,100		
Cost for each category = A*F	G	\$0	\$11,200	\$0	\$21,400	\$31,600	\$0	\$64,200	\$6,200		\$6,100	\$12,300	
Average cost per facility = G/A	H							\$21,400				\$4,100	
Total Annual Cost = A * H												\$64,200	\$12,000
ANNUAL VSP AUDITS - 2-4 TSDFs								\$43,000	\$86,000			\$8,000	\$16,000

FORM 399 ATTACHMENT 2 -
PROPOSAL

2. COMMUNITY PROFILE	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities	DTSC COST RECOVERY			TOTAL # of Facilities			
								S	M	L		S	M	L				
From Envirostor		27	29	22	12	16	3	109				19	109				19	109
ANNUAL Estimate of Impacted Facilities	A	3	4	3	1	2	0	13	56	34	19	109	56	34	19	109		
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		7	4	2	13	7	4	2	13		
Staff hours	C	32	32	52	52	72	72		\$76	\$76	\$76	\$145	\$214	\$214	\$214			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		16	24	36		16	24	36			
Management hours	E	8	8	8	8	8	8		\$98	\$98	\$98	\$264	\$264	\$264	\$264			
Cost per facility = B*C + D*E	F	\$3,900	\$3,900	\$5,800	\$5,800	\$7,600	\$7,600		0	0	0		0	0	0			
Cost for each category = A*F	G	\$11,700	\$15,600	\$17,400	\$5,800	\$15,200	\$0	\$65,700	\$1,200	\$1,800	\$2,700		\$3,400	\$5,100	\$7,700			
Average cost per facility = G/A	H							\$5,100	\$8,000	\$7,000	\$5,000	\$20,000	\$24,000	\$20,000	\$15,000	\$59,000		
Total Annual Cost = A * H								\$5,100				\$1,500				\$4,500		
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$51,000				\$15,000	\$24,000			\$45,000	\$59,000	\$72,000

3. FINANCIAL RESPONSIBILITY	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		27	29	22	12	16	3	109	56	34	19	109	
Number of Federal Facilities		0	0	5	0	5	0	10	0	5	5	10	
Total w/o Federal Facilities		27	29	17	12	11	3	99	56	29	14	99	
ANNUAL Estimate of Impacted Facilities	A	7	8	5	3	3	1	27	15	8	4	27	
Staff Hourly Rate	B	\$78	\$78	\$78	\$78	\$78	\$78		\$61	\$61	\$61		
Staff hours	C	60	60	60	120	120	120		20	40	80		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98		
Management hours	E	8	8	8	8	16	16		2	2	4		
Cost per facility = B*C + D*E	F	\$5,600	\$5,600	\$5,600	\$10,200	\$11,100	\$11,100		\$1,400	\$2,600	\$5,300		
Cost for each category = A*F	G	\$39,200	\$44,800	\$28,000	\$30,600	\$33,300	\$11,100	\$187,000	\$21,000	\$20,800	\$21,200	\$63,000	
Average cost per facility = G/A	H							\$6,900				\$2,300	
Total Annual Cost = A * H								\$6,900				\$186,300	
APPLICATIONS AVERAGE PER YEAR - 9 to 15 TSDFs without Federal Facilities								\$62,000				\$21,000	\$35,000
ANNUAL FINANCIAL RECORDS REVIEW INSPECTIONS - 16 TO 19								\$110,000				\$37,000	\$44,000
ANNUAL INSPECTIONS & APPLICATIONS - 25-34 ¹								\$173,000				\$58,000	\$78,000

4. TRAINING	Number of Employees				# of Facilities	DTSC Review			WLS
	0-9	10-49	50-99	Over 100		S	M	L	
From 2012 Census data		52	32	8	4				
Adjusted up 14% to account for 109 TSDFs	A	59	36	9	5				109
Staff Hourly Rate	B	\$94	\$94	\$94	\$94				
Staff hours	C	8	12	14	16				
Management Hourly Rate	D	\$109	\$109	\$109	\$109				
Management hours	E	2	2	2	2				
Cost per facility = B*C + D*E	F	\$1,000	\$1,300	\$1,500	\$1,700				
Cost for each category = A*F	G	\$59,280	\$47,424	\$13,680	\$7,752				\$24,700
Average cost per facility = G/A	H								\$227
Total Annual Cost = A * H									\$131,300
AVERAGE TOTAL PER YEAR - 109 FACILITIES									\$24,700

FORM 399 ATTACHMENT 2 -
PROPOSAL

										DTSC COST RECOVERY									
5. HEALTH RISK ASSESSMENT (HRA) - QUESTIONNAIRE										DTSC Review		TOTAL # of Facilities			DTSC Review		TOTAL # of Facilities		
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities			S	M	L	S	M	L				
From Envirostor		0	29	22	12	16	3	82		29	34	19	82	29	34	19	82		
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	2	0	11		4	5	2	11	4	5	2	11		
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94			\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	80	80	120	120	120			40	60	80		40	60	80			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109			\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	8	8	16	16	16			4	4	4		4	4	4			
Cost per facility = B*C + D*E	F	\$0	\$8,400	\$8,400	\$13,000	\$13,000	\$13,000			\$3,700	\$5,400	\$7,000		\$8,900	\$12,900	\$16,800			
Cost for each category = A*F	G	\$0	\$33,600	\$25,200	\$26,000	\$26,000	\$0	\$110,800		\$14,800	\$27,000	\$14,000	\$55,800	\$35,600	\$64,500	\$33,600	\$133,700		
Average cost per facility = G/A	H						\$10,100						\$5,100				\$12,200		
Total Annual Cost = A * H								\$111,100					\$56,100				\$134,200		
APPLICATIONS RANGE PER YEAR - 7 to 15 TSDFs								\$71,000	\$152,000				\$36,000	\$77,000				\$85,000	\$183,000
5. HEALTH RISK ASSESSMENT - NO FURTHER ACTION NEEDED										DTSC Review		TOTAL # of Facilities			DTSC Review		TOTAL # of Facilities		
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities			S	M	L	S	M	L				
TOTAL Estimate of Impacted Facilities		0	11	5	2	0	0	18		11	7	0	18	11	7	0	18		
ANNUAL Estimate of Impacted Facilities	A	0	1	1	1	0	0	3		1	2	0	3	1	2	0	3		
Average cost per facility	H	\$0	\$0	\$0	\$0	\$0	\$0	\$0					\$0				\$0		
Total Annual Cost = A * H								\$0					\$0				\$0		
APPLICATIONS RANGE PER YEAR - 3 to 5 TSDFs								\$0	\$0				\$0	\$0				\$0	\$0
5. HEALTH RISK ASSESSMENT - SCREENING LEVEL										DTSC Review		TOTAL # of Facilities			DTSC Review		TOTAL # of Facilities		
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities			S	M	WLS L	S	M	WLS L				
TOTAL Estimate of Impacted Facilities		0	18	17	10	5	0	50		18	27	5	50	18	27	5	50		
ANNUAL Estimate of Impacted Facilities	A	0	2	2	1	1	0	6		2	3	1	6	2	3	1	6		
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109	\$109			\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	240	240	360	480	480			80	120	160		80	120	160			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109			\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	24	24	40	40	40			8	12	12		8	12	12			
Cost per facility = B*C + D*E	F	\$0	\$28,800	\$28,800	\$43,600	\$56,700	\$56,700			\$7,400	\$11,100	\$14,500		\$17,900	\$26,800	\$34,700			
Cost for each category = A*F	G	\$0	\$57,600	\$57,600	\$43,600	\$56,700	\$0	\$215,500		\$14,800	\$33,300	\$14,500	\$62,600	\$35,800	\$80,400	\$34,700	\$150,900		
Average cost per facility = G/A	H						\$35,900						\$10,400				\$25,200		
Total Annual Cost = A * H								\$215,400					\$62,400				\$151,200		
APPLICATIONS RANGE PER YEAR - 4 - 9 TSDFs								\$144,000	\$323,000				\$42,000	\$94,000				\$101,000	\$227,000
5. HEALTH RISK ASSESSMENT - BASELINE										DTSC Review		TOTAL # of Facilities			DTSC Review		TOTAL # of Facilities		
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities			S	M	L	S	M	L				
TOTAL Estimate of Impacted Facilities		0	0	0	11	3	14			0	0	14	14	0	0	14	14		
ANNUAL Estimate of Impacted Facilities	A	0	0	0	0	1.5	0	1.5		0	0	1.5	1.5	0	0	1.5	1.5		
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109	\$109			\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	640	960	960	1280	1280			96	132	240		96	132	240			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109			\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	24	24	40	40	40			8	16	24		8	16	24			
Cost per facility = B*C + D*E	F	\$0	\$72,400	\$107,300	\$109,000	\$143,900	\$143,900			\$8,800	\$12,500	\$22,300		\$21,000	\$30,200	\$53,600			
Cost for each category = A*F	G	\$0	\$0	\$0	\$0	\$215,850	\$0	\$215,850		\$0	\$0	\$33,450	\$33,450	\$0	\$0	\$80,400	\$80,400		
Average cost per facility = G/A	H						\$143,900						\$22,300				\$53,600		
Total Annual Cost = A * H								\$215,900					\$33,500				\$80,400		
APPLICATIONS RANGE PER YEAR - 1 to 2 TSDFs								\$144,000	\$288,000				\$22,000	\$45,000				\$54,000	\$107,000

TABLE 1 FACILITY COSTS					
SUMMARY TABLE - TOTALS PER YEAR					
	RANGE	FACILITY PREPARATION ESTIMATE			
		LOW*	TYPICAL*	HIGH*	
VIOLATIONS SCORING PROCEDURE SCORES	A	\$190	\$310	\$750	annual
VSP - DISPUTE DOCUMENT	V	\$0	\$0	\$9,260	varies
VSP - AUDIT	V	\$0	\$21,400	\$31,600	varies
COMMUNITY PROFILE	P	\$3,900	\$5,100	\$7,600	permit application
<i>COMMUNITY PROFILE COST RECOVERY</i>	<i>P</i>	<i>\$3,400</i>	<i>\$5,100</i>	<i>\$7,700</i>	<i>permit application</i>
FINANCIAL RESPONSIBILITY	V	\$5,600	\$6,900	\$11,100	permit & triennial
TRAINING	A	\$1,000	\$1,200	\$1,700	annual
HRA - QUESTIONNAIRE	P	\$8,400	\$10,100	\$13,000	permit application
HRA -NO FURTHER ACTION	P	\$0	\$0	\$0	permit application
HRA -SCREENING LEVEL	P	\$28,800			permit application
HRA -SCREENING & BASELINE AVERAGE	P		\$57,500		permit application
HRA -BASELINE	P			\$143,900	permit application
<i>HRA COST RECOVERY</i>	<i>P</i>	<i>\$26,800</i>	<i>\$43,700</i>	<i>\$70,400</i>	<i>permit application</i>

TOTAL STATEWIDE DOLLAR COSTS				
RANGE - PERMIT APPLICATION COSTS	P	\$46,000	\$80,000	\$176,000
PERMITTING COST RECOVERY	P	\$30,200	\$48,800	\$78,100
TOTAL PERMITTING COSTS	P	\$76,200	\$128,800	\$254,100
RANGE - ANNUAL COSTS PER FACILITY ¹	A	\$3,100	\$3,800	\$15,400
		Permit Cost ^{2,3} =	\$5,569,200	
		Annual ⁴ =	\$1,624,000	
5 YEAR TOTAL - ALL FACILITIES (See note below for calculation)				\$7,193,000 *
B.1 from Table 4				\$7,167,000

Estimated Private Sector

B.1.a =	\$76,200	& Annual =	\$3,100
B.1.b =	\$128,800	& Annual =	\$3,800
B.1 =	\$7,193,000		

* Note: This B.1 total is based on typical permit application cost times 70 (14 permits for each of 5 years) plus 5 times the annual costs per facility times the average number impacted.

B1 Assumptions: Avg number of applications per year is 14
Avg number of annual facilities subject to inspections & VSP Scoring is 18. Not all facilities have class 1 violations.
Avg number of facilities subject to FR review is 18 as part of an inspection.

1. Annual cost is VSP Scores + Financial Responsibility÷3 + Training

3. Five (5) years is used for estimated lifetime costs in Form 399, B1 if not equipment is required

4. Annual cost is the VSP Scores AVG + Financial Responsibility AVG + (Training) times (109 facilities)

TABLE 2 DTSC COSTS
SUMMARY TABLE - TOTALS PER YEAR
CURRENT YEAR TOTAL AND EACH OF TWO SUBSEQUENT YEARS

This estimate from summary Table 2 is based on average cost multiplied by average number of facilities impacted

This second estimate from Tables 3-5 is based average cost multiplied by a customized number of facilities impacted each year

Fiscal Effect on State Government	
B.1 =	\$156,000 see summary
For the last quarter of the current year	
B.1 =	\$198,000 from Table 5



DTSC TOTAL COST PER YEAR - ALL FACILITIES	
VSP SCORE	\$41,600
VSP AUDIT	\$12,000
COMMUNITY PROFILE	\$20,000
FINANCIAL RESPONSIBILITY	\$62,100
TRAINING	\$24,700
HRA QUESTIONNAIRE	\$56,100
HRA SCREENING	\$62,400
HRA BASELINE	\$33,500
	\$312,400

DTSC STAFF REVIEW COSTS
RANGE PER FACILITY/YEAR

LOW	HIGH
\$1,110	\$1,990 VSP SCORE
\$3,100	\$6,100 VSP AUDIT
\$1,200	\$2,700 COMMUNITY PROFILE
\$1,400	\$5,300 FINANCIAL RESPONSIBILITY
\$150	\$460 TRAINING
\$3,700	\$7,000 HRA - QUESTIONNAIRE
\$7,400	\$0 HRA -SCREENING LEVEL
\$0	\$22,300 HRA -BASELINE

TABLE 3

		NUMBER OF FACILITIES IMPACTED				
		CURRENT YEAR	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	range	46-55 ⁵	26-35	26-35	26-35	26-35
- AVG NUMBER INSPECTIONS	annual	19	19	18	17	16
- INITIAL FIRST YEAR SCORES		20				
- AVG NUMBER APPLICATIONS	permit	16	16	15	12	10
- AVERAGE NUMBER	yearly	55	35	33	29	26
VSP - DISPUTE DOCUMENTS	yearly	18	16	14	13	8
VSP - AUDIT	varies	1	2	3	3	3
COMMUNITY INVOLVEMENT PROFILE	permit	10-16	10-16	10-16	10-16	10-16
- AVERAGE NUMBER		16	16	15	12	10
FINANCIAL RESPONSIBILITY -permit ⁶	permit	15	13	12	11	9
FINANCIAL RESPONSIBILITY-inspection	annual	16-19	16-19	16-19	16-19	16-19
- AVERAGE NUMBER		34	32	30	29	25
TRAINING	annual	109	109	109	109	109
HRA - QUESTIONNAIRE	permit	7-15	7-15	7-15	7-15	7-15
- AVERAGE NUMBER		15	13	11	9	7
HRA -SCREENING LEVEL	permit	4-9	4-9	4-9	4-9	4-9
- AVERAGE NUMBER		9	8	6	4	4
HRA -BASELINE	permit	1-2	1-2	1-2	1-2	1-2
- AVERAGE NUMBER		1	2	1	2	1

nd

⁵ This total include 20 additional calculations of VSP for the first year.

⁶ Permit applications without federal facilities.

TABLE 4 - Facility Costs

		TOTAL COST FOR FACILITIES IMPACTED BASED ON AVERAGE COST				
		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	annual	\$17,100	\$10,900	\$10,200	\$9,000	\$8,100
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$21,400	\$42,800	\$64,200	\$64,200	\$64,200
COMMUNITY INVOLVEMENT PROFILE	permit	\$81,600	\$81,600	\$76,500	\$61,200	\$51,000
COMMUNITY PROFILE COST RECOVERY	cost recovery	\$72,000	\$72,000	\$67,500	\$54,000	\$45,000
FINANCIAL RESPONSIBILITY	permit & annual	\$234,600	\$220,800	\$207,000	\$200,100	\$172,500
TRAINING	annual	\$130,800	\$130,800	\$130,800	\$130,800	\$130,800
HRA - QUESTIONNAIRE	permit	\$151,500	\$131,300	\$111,100	\$90,900	\$70,700
HRA -SCREENING LEVEL	permit	\$323,100	\$287,200	\$215,400	\$143,600	\$143,600
HRA -BASELINE	permit	\$143,900	\$287,800	\$143,900	\$287,800	\$143,900
HRA COST RECOVERY	cost recovery	\$463,400	\$467,400	\$339,000	\$317,800	\$239,800
TOTAL PER YEAR		\$1,639,400	\$1,732,600	\$1,365,600	\$1,359,400	\$1,069,600
B.1. - FIVE YEAR TOTAL =		\$7,167,000				

TABLE 5 - DTSC Costs
CURRENT YEAR AND SUBSEQUENT YEARS

		TOTAL COST FOR DTSC BASED ON AVERAGE COST				
		CURRENT YEAR	CURRENT YEAR +1	CURRENT YEAR +2	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	yearly	\$71,500	\$45,500	\$42,900	\$37,700	\$33,800
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$4,100	\$8,200	\$12,300	\$12,300	\$12,300
COMMUNITY INVOLVEMENT PROFILE	permit	\$24,000	\$24,000	\$22,500	\$18,000	\$15,000
FINANCIAL RESPONSIBILITY	yearly	\$78,000	\$74,000	\$69,000	\$67,000	\$58,000
TRAINING	annual	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
HRA - QUESTIONNAIRE	permit	\$77,000	\$66,000	\$56,000	\$46,000	\$36,000
HRA -SCREENING LEVEL	permit	\$94,000	\$83,000	\$62,000	\$42,000	\$42,000
HRA -BASELINE	permit	\$22,000	\$45,000	\$22,000	\$45,000	\$22,000
TOTAL PER YEAR		\$395,600	\$370,700	\$311,700	\$293,000	\$244,100

**Explicit Costs for Additional Requirements - ALTERNATIVE 1 - TIERED HEALTH RISK ASSESSMENT (HRA) IS REPLACED
BY ALL FACILITIES COMPLETING AN HRA QUESTIONNAIRE & BASELINE HRA**

VIOLATIONS SCORING PROCEDURE (VSP)	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		19	82	
ANNUAL Estimate of Impacted Facilities	A	0	11	10	4	6	1	32	25		7	32	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$57		\$57		
Staff hours	C	0	2	2	2	8	8		16		28		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	0	0	0	0	0		2		4		
Cost per facility = B*C + D*E	F	\$0	\$190	\$190	\$190	\$750	\$750		\$1,110		\$1,990		
Cost for each category = A*F	G	\$0	\$2,090	\$1,900	\$760	\$4,500	\$750	\$10,000	\$27,750		\$13,930	\$41,680	
Average cost per facility = G/A	H							\$310			\$1,300		
Total Annual Cost = A * H												\$9,900	
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$4,300			\$5,000	\$13,000	\$20,800
ANNUAL INSPECTIONS & VSP - 16 TO 19								\$5,000			\$5,900	\$21,000	\$25,000
ANNUAL TOTAL PER YEAR - 26 to 35 FACILITIES								\$8,100			\$10,900	\$34,000	\$46,000

DTSC COST RECOVERY

VSP - DISPUTE DOCUMENT	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		19	82	
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	3	1	13	9		4	13	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$77		\$77		
Staff hours	C	0	80	80	80	80	80		16		28		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	16	16	16	16	16		40		40		
Cost per facility = B*C + D*E	F	\$0	\$9,260	\$9,260	\$9,260	\$9,260	\$9,260		\$5,150		\$6,080		
Cost for each category = A*F	G	\$0	\$37,040	\$27,780	\$18,520	\$27,780	\$9,260	\$120,380	\$46,350		\$24,320	\$70,670	
Average cost per facility = G/A	H							\$9,260			\$5,400		
Total Annual Cost = A * H												\$120,400	
INSPECTIONS WITH CLASS 1 VIOLATIONS RANGE PER YEAR - 8 to 18 TSDFs								\$148,200			\$222,200	\$86,400	\$129,600

DTSC COST RECOVERY

VSP - AUDITS	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities		
								S	M	L			
From Envirostor		0	29	22	12	16	3	82	63		20	83	
ANNUAL Estimate of Impacted Facilities	A	0	1	0	1	1	0	3	2		1	3	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$57		\$57		
Staff hours	C	0	96	96	186	280	280		40		80		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98		\$98		
Management hours	E	0	20	20	36	48	48		8		16		
Cost per facility = B*C + D*E	F	\$0	\$11,200	\$11,200	\$21,400	\$31,600	\$31,600		\$3,100		\$6,100		
Cost for each category = A*F	G	\$0	\$11,200	\$0	\$21,400	\$31,600	\$0	\$64,200	\$6,200		\$6,100	\$12,300	
Average cost per facility = G/A	H							\$21,400			\$4,100		
Total Annual Cost = A * H												\$64,200	
ANNUAL VSP AUDITS - 2-4 TSDFs								\$43,000			\$86,000	\$8,000	\$16,000

DTSC COST RECOVERY

2. COMMUNITY PROFILE	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities	DTSC Review				TOTAL # of Facilities			
								S	M	L		S	M	L					
From Envirostor		27	29	22	12	16	3	109				56	34	19	109	56	34	19	109
ANNUAL Estimate of Impacted Facilities	A	3	4	3	1	2	0	13				7	4	2	13	7	4	2	13
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94					\$76	\$76	\$76		\$214	\$214	\$214	
Staff hours	C	32	32	52	52	72	72					16	24	36		16	24	36	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109					\$98	\$98	\$98		\$264	\$264	\$264	
Management hours	E	8	8	8	8	8	8					0	0	0		0	0	0	
Cost per facility = B*C + D*E	F	\$3,900	\$3,900	\$5,800	\$5,800	\$7,600	\$7,600					\$1,200	\$1,800	\$2,700		\$3,400	\$5,100	\$7,700	
Cost for each category = A*F	G	\$11,700	\$15,600	\$17,400	\$5,800	\$15,200	\$0	\$65,700				\$8,000	\$7,000	\$5,000	\$20,000	\$24,000	\$20,000	\$15,000	\$59,000
Average cost per facility = G/A	H							\$5,100						\$1,500				\$4,500	
Total Annual Cost = A * H								\$66,300							\$20,000				\$59,000
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$51,000							\$15,000				\$45,000
								\$82,000							\$24,000				\$72,000

3. FINANCIAL RESPONSIBILITY	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities					
								S	M	L						
From Envirostor		27	29	22	12	16	3	109				56	34	19	109	
Number of Federal Facilities		0	0	5	0	5	0	10				0	5	5	10	
Total w/o Federal Facilities		27	29	17	12	11	3	99				56	29	14	99	
ANNUAL Estimate of Impacted Facilities	A	7	8	5	3	3	1	27				15	8	4	27	
Staff Hourly Rate	B	\$78	\$78	\$78	\$78	\$78	\$78					\$61	\$61	\$61		
Staff hours	C	60	60	60	120	120	120					20	40	80		
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109					\$98	\$98	\$98		
Management hours	E	8	8	8	8	16	16					2	2	4		
Cost per facility = B*C + D*E	F	\$5,600	\$5,600	\$5,600	\$10,200	\$11,100	\$11,100					\$1,400	\$2,600	\$5,300		
Cost for each category = A*F	G	\$39,200	\$44,800	\$28,000	\$30,600	\$33,300	\$11,100	\$187,000				\$21,000	\$20,800	\$21,200	\$63,000	
Average cost per facility = G/A	H							\$6,900						\$2,300		
Total Annual Cost = A * H								\$186,300							\$62,100	
APPLICATIONS AVERAGE PER YEAR - 9 to 15 TSDFs without Federal Facilities								\$62,000							\$21,000	\$35,000
ANNUAL FINANCIAL RECORDS REVIEW INSPECTIONS - 16 TO 19								\$110,000							\$37,000	\$44,000
ANNUAL INSPECTIONS & APPLICATIONS - 25-34 ¹								\$173,000							\$58,000	\$78,000

DTSC COST RECOVERY

4. TRAINING	Number of Employees	Number of Employees				# of Facilities	DTSC Review			WLS
		0-9	10-49	50-99	Over 100		S	M	L	
From 2012 Census data		52	32	8	4	96				
Adjusted up 14% to account for 109 TSDFs	A	59	36	9	5	109				
Staff Hourly Rate	B	\$94	\$94	\$94	\$94					
Staff hours	C	8	12	14	16					
Management Hourly Rate	D	\$109	\$109	\$109	\$109					
Management hours	E	2	2	2	2					
Cost per facility = B*C + D*E	F	\$1,000	\$1,300	\$1,500	\$1,700					
Cost for each category = A*F	G	\$59,280	\$47,424	\$13,680	\$7,752	\$128,136				
Average cost per facility = G/A	H					\$1,200				
Total Annual Cost = A * H						\$131,300				\$24,700
AVERAGE TOTAL PER YEAR - 109 FACILITIES						\$128,000				\$24,700

DTSC COST RECOVERY

DTSC COST RECOVERY

5. HEALTH RISK ASSESSMENT (HRA) - QUESTIONNAIRE								DTSC Review			TOTAL # of Facilities					
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	
From Envirostor		0	29	22	12	16	3	29	34	19	82	29	34	19	82	
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	2	0	4	5	2	11	4	5	2	11	
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94	\$83	\$83	\$83	\$83	\$197	\$197	\$197	\$197	
Staff hours	C	0	80	80	120	120	120	40	60	80	180	40	60	80	180	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98	\$98	\$98	\$98	\$264	\$264	\$264	\$264	
Management hours	E	0	8	8	16	16	16	4	4	4	16	4	4	4	16	
Cost per facility = B*C + D*E	F	\$0	\$8,400	\$8,400	\$13,000	\$13,000	\$13,000	\$3,700	\$5,400	\$7,000	\$16,800	\$8,900	\$12,900	\$16,800	\$16,800	
Cost for each category = A*F	G	\$0	\$33,600	\$25,200	\$26,000	\$26,000	\$0	\$14,800	\$27,000	\$14,000	\$55,800	\$35,600	\$64,500	\$33,600	\$133,700	
Average cost per facility = G/A	H						\$10,100				\$5,100				\$12,200	
Total Annual Cost = A * H											\$111,100	\$56,100	\$134,200			
APPLICATIONS RANGE PER YEAR - 7 to 15 TSDFs											\$71,000	\$152,000	\$36,000	\$77,000	\$85,000	\$183,000

THIS ALTERNATIVE REMOVES THIS OPTION

5. HEALTH RISK ASSESSMENT - -NO FURTHER ACTION NEEDED								DTSC Review			TOTAL # of Facilities					
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	
TOTAL Estimate of Impacted Facilities		0	11	5	2	0	0	11	7	0	18	11	7	0	18	
ANNUAL Estimate of Impacted Facilities	A	0	1	1	1	0	0	1	2	0	3	1	2	0	3	
Average cost per facility	H	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$0	\$0			\$0	
Total Annual Cost = A * H											\$0	\$0	\$0	\$0		
APPLICATIONS RANGE PER YEAR - 3 to 5 TSDFs											\$0	\$0	\$0	\$0	\$0	\$0

THIS ALTERNATIVE REMOVES THIS OPTION

5. HEALTH RISK ASSESSMENT - -SCREENING LEVEL								DTSC Review			TOTAL # of Facilities					
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	S	M	WLS L	TOTAL # of Facilities	S	M	WLS L	TOTAL # of Facilities	
TOTAL Estimate of Impacted Facilities		0	18	17	10	5	0	18	27	5	50	18	27	5	50	
ANNUAL Estimate of Impacted Facilities	A	0	2	2	1	1	0	2	3	1	6	2	3	1	6	
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109	\$109	\$83	\$83	\$83	\$83	\$197	\$197	\$197	\$197	
Staff hours	C	0	240	240	360	480	480	80	120	160	360	80	120	160	360	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98	\$98	\$98	\$98	\$264	\$264	\$264	\$264	
Management hours	E	0	24	24	40	40	40	8	12	12	32	8	12	12	32	
Cost per facility = B*C + D*E	F	\$0	\$28,800	\$28,800	\$43,600	\$56,700	\$56,700	\$7,400	\$11,100	\$14,500	\$33,600	\$17,900	\$26,800	\$34,700	\$34,700	
Cost for each category = A*F	G	\$0	\$57,600	\$57,600	\$43,600	\$56,700	\$0	\$14,800	\$33,300	\$14,500	\$62,600	\$35,800	\$80,400	\$34,700	\$150,900	
Average cost per facility = G/A	H						\$35,900				\$10,400				\$25,200	
Total Annual Cost = A * H											\$215,400	\$62,400	\$151,200			
APPLICATIONS RANGE PER YEAR - 4 - 9 TSDFs											\$144,000	\$323,000	\$42,000	\$94,000	\$101,000	\$227,000

THIS ALTERNATIVE REQUIRES ALL FACILITIES TO COMPLETE A QUESTIONNAIRE AND A BASELINE

5. HEALTH RISK ASSESSMENT - -BASELINE								DTSC Review			TOTAL # of Facilities					
	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities	
TOTAL Estimate of Impacted Facilities		0	29	22	12	16	3	29	34	19	82	29	34	19	82	
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	2	0	4	5	2	11	4	5	2	11	
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109	\$109	\$83	\$83	\$83	\$83	\$197	\$197	\$197	\$197	
Staff hours	C	0	640	960	960	1280	1280	96	132	240	368	96	132	240	368	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98	\$98	\$98	\$98	\$264	\$264	\$264	\$264	
Management hours	E	0	24	24	40	40	40	8	16	24	32	8	16	24	32	
Cost per facility = B*C + D*E	F	\$0	\$72,400	\$107,300	\$109,000	\$143,900	\$143,900	\$8,800	\$12,500	\$22,300	\$43,600	\$21,000	\$30,200	\$53,600	\$53,600	
Cost for each category = A*F	G	\$0	\$289,600	\$321,900	\$218,000	\$287,800	\$0	\$35,200	\$62,500	\$44,600	\$142,300	\$84,000	\$151,000	\$107,200	\$342,200	
Average cost per facility = G/A	H						\$101,600				\$12,900				\$31,100	
Total Annual Cost = A * H											\$1,117,600	\$141,900	\$342,100			
APPLICATIONS RANGE PER YEAR - 1 to 2 TSDFs											\$102,000	\$203,000	\$13,000	\$26,000	\$31,000	\$62,000

DTSC Review				TOTAL # of Facilities			
S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities
29	34	19	82	29	34	19	82
4	5	2	11	4	5	2	11
\$197	\$197	\$197	\$197	\$197	\$197	\$197	\$197
40	60	80	180	40	60	80	180
\$264	\$264	\$264	\$264	\$264	\$264	\$264	\$264
4	4	4	16	4	4	4	16
\$8,900	\$12,900	\$16,800	\$16,800	\$8,900	\$12,900	\$16,800	\$16,800
\$35,600	\$64,500	\$33,600	\$133,700	\$35,600	\$64,500	\$33,600	\$133,700

DTSC COST RECOVERY				
DTSC Review	S	M	L	TOTAL # of Facilities
	11	7	0	18
	1	2	0	3
	\$0			\$0
	\$0			\$0

DTSC COST RECOVERY				
DTSC Review	S	M	WLS L	TOTAL # of Facilities
	18	27	5	50
	2	3	1	6
	\$197	\$197	\$197	\$197
	80	120	160	360
	\$264	\$264	\$264	\$264
	8	12	12	32
	\$17,900	\$26,800	\$34,700	\$34,700
	\$35,800	\$80,400	\$34,700	\$150,900
	\$10,400			\$25,200
	\$215,400	\$62,400		\$151,200
	\$144,000	\$323,000	\$42,000	\$94,000
	\$101,000			\$227,000

DTSC COST RECOVERY				
DTSC Review	S	M	L	TOTAL # of Facilities
	29	34	19	82
	4	5	2	11
	\$197	\$197	\$197	\$197
	96	132	240	368
	\$264	\$264	\$264	\$264
	8	16	24	32
	\$21,000	\$30,200	\$53,600	\$53,600
	\$84,000	\$151,000	\$107,200	\$342,200
				\$31,100
				\$1,117,600
				\$141,900
				\$342,100
				\$31,000
				\$62,000

TABLE 1 FACILITY COSTS					
SUMMARY TABLE - TOTALS PER YEAR					
	RANGE	FACILITY PREPARATION ESTIMATE			
		LOW*	TYPICAL*	HIGH*	
VIOLATIONS SCORING PROCEDURE SCORES	A	\$190	\$310	\$750	annual
VSP - DISPUTE DOCUMENT	V	\$0	\$0	\$9,260	varies
VSP - AUDIT	V	\$0	\$0	\$31,600	varies
COMMUNITY PROFILE	P	\$3,900	\$5,100	\$7,600	permit application
COMMUNITY PROFILE COST RECOVERY	P	\$3,400	\$5,100	\$7,700	permit application
FINANCIAL RESPONSIBILITY	V	\$5,600	\$6,900	\$11,100	permit & triennial
TRAINING	A	\$1,000	\$1,200	\$1,700	annual
HRA - QUESTIONNAIRE	P	\$8,400	\$10,100	\$13,000	permit application
HRA -BASELINE	P	\$72,400	\$101,600	\$143,900	permit application
HRA COST RECOVERY	P	\$29,900	\$43,100	\$70,400	permit application

TOTAL STATEWIDE DOLLAR COSTS					
RANGE - PERMIT APPLICATION COSTS	P	\$90,000	\$124,000	\$176,000	
PERMITTING COST RECOVERY	P	\$33,300	\$48,200	\$78,100	
TOTAL PERMITTING COSTS	P	\$123,300	\$172,200	\$254,100	
RANGE - ANNUAL COSTS PER FACILITY ¹	A	\$3,100	\$3,800	\$15,400	
			Permit Cost ^{2,3} =	\$9,732,700	
			Annual ⁴ =	\$1,303,000	
5 YEAR TOTAL - ALL FACILITIES (See note below for calculation)					\$11,036,000 *
B.1 from Table 4					\$11,189,000

Estimated Private Sector

B.1.a =	\$123,300	& Annual =	\$3,100
B.1.b =	\$172,200	& Annual =	\$3,800
B.1 =	\$11,036,000		

* Note: This B.1 total is based on typical permit application cost times 70 (14 permits for each of 5 years) plus 5 times the annual costs per facility times the average number impacted.

B1 Assumptions: Avg number of applications per year is 14
Avg number of annual facilities subject to inspections & VSP Scoring is 18. Not all facilities have class 1 violations.
Avg number of facilities subject to FR review is 18 as part of an inspection.

1. Annual cost is VSP Scores + Financial Responsibility ÷ 3 + Training
3. Five (5) years is used for estimated lifetime costs in Form 399, B1 if not equipment is required
4. Annual cost is the VSP Scores AVG + Financial Responsibility AVG + (Training) times (109 facilities)

TABLE 2 DTSC COSTS
SUMMARY TABLE - TOTALS PER YEAR

CURRENT YEAR TOTAL AND EACH OF TWO SUBSEQUENT YEARS

This estimate from summary Table 2 is based on average cost multiplied by average number of facilities impacted

Fiscal Effect on State Government
B.1 = **\$210,000** see summary



For the last quarter of the current year

Fiscal Effect on State Government
B.1 = **\$237,000** from Table 5

This second estimate from Tables 3-5 is based average cost multiplied by a customized number of facilities impacted each year

DTSC TOTAL COST PER YEAR - ALL FACILITIES

VSP SCORE	\$41,600
VSP AUDIT	\$12,000
COMMUNITY PROFILE	\$20,000
FINANCIAL RESPONSIBILITY	\$62,100
TRAINING	\$24,700
HRA QUESTIONNAIRE	\$56,100
HRA SCREENING	\$62,400
HRA BASELINE	\$141,900
TOTAL	\$420,800

DTSC STAFF REVIEW COSTS

RANGE PER FACILITY/YEAR

	LOW	HIGH
VSP SCORE	\$1,110	\$1,990
VSP AUDIT	\$3,100	\$6,100
COMMUNITY PROFILE	\$1,200	\$2,700
FINANCIAL RESPONSIBILITY	\$1,400	\$5,300
TRAINING	\$150	\$460
HRA - QUESTIONNAIRE	\$3,700	\$7,000
HRA -SCREENING LEVEL	\$7,400	\$0
HRA -BASELINE	\$0	\$22,300

TABLE 3 **NUMBER OF FACILITIES IMPACTED**

		CURRENT YEAR	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	range	46-55 ¹⁰	26-35	26-35	26-35	26-35
- AVG NUMBER INSPECTIONS	annual	19	19	18	17	16
- INITIAL FIRST YEAR SCORES		20				
- AVG NUMBER APPLICATIONS	permit	16	16	15	12	10
- AVERAGE NUMBER	yearly	55	35	33	29	26
VSP - DISPUTE DOCUMENTS	yearly	18	16	14	13	8
VSP - AUDIT	varies	1	2	3	3	3
COMMUNITY INVOLVEMENT PROFILE	permit	10-16	10-16	10-16	10-16	10-16
- AVERAGE NUMBER		16	16	15	12	10
FINANCIAL RESPONSIBILITY -permit ¹¹	permit	15	13	12	11	9
FINANCIAL RESPONSIBILITY-inspection	annual	16-19	16-19	16-19	16-19	16-19
- AVERAGE NUMBER		34	32	30	29	25
TRAINING	annual	109	109	109	109	109
HRA - QUESTIONNAIRE	permit	7-15	7-15	7-15	7-15	7-15
- AVERAGE NUMBER		15	13	11	9	7
HRA -SCREENING LEVEL	permit	0	0	0	0	0
- AVERAGE NUMBER		0	0	0	0	0
HRA -BASELINE	permit	7-15	7-15	7-15	7-15	7-15
- AVERAGE NUMBER		15	13	11	9	7

⁵ This total include 20 additional calculations of VSP for the first year.

⁶ Permit applications without federal facilities.

TABLE 4 - Facility Costs

TOTAL COST FOR FACILITIES IMPACTED BASED ON AVERAGE COST

		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	annual	\$17,100	\$10,900	\$10,200	\$9,000	\$8,100
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$21,400	\$42,800	\$64,200	\$64,200	\$64,200
COMMUNITY INVOLVEMENT PROFILE	permit	\$81,600	\$81,600	\$76,500	\$61,200	\$51,000
COMMUNITY PROFILE COST RECOVERY	cost recovery	\$72,000	\$72,000	\$67,500	\$54,000	\$45,000
FINANCIAL RESPONSIBILITY	permit & annual	\$234,600	\$220,800	\$207,000	\$200,100	\$172,500
TRAINING	annual	\$130,800	\$130,800	\$130,800	\$130,800	\$130,800
HRA - QUESTIONNAIRE	permit	\$151,500	\$131,300	\$111,100	\$90,900	\$70,700
HRA -SCREENING LEVEL	permit	\$0	\$0	\$0	\$0	\$0
HRA -BASELINE	permit	\$1,524,000	\$1,320,800	\$1,117,600	\$914,400	\$711,200
HRA COST RECOVERY	cost recovery	\$649,500	\$562,900	\$476,300	\$389,700	\$303,100
TOTAL PER YEAR		\$2,882,500	\$2,573,900	\$2,261,200	\$1,914,300	\$1,556,600
B.1. - FIVE YEAR TOTAL =		\$11,189,000				

**TABLE 5 - DTSC Costs
CURRENT YEAR AND SUBSEQUENT YEARS**

TOTAL COST FOR DTSC BASED ON AVERAGE COST

		CURRENT YEAR	CURRENT YEAR +1	CURRENT YEAR +2	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	yearly	\$71,500	\$45,500	\$42,900	\$37,700	\$33,800
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$4,100	\$8,200	\$12,300	\$12,300	\$12,300
COMMUNITY INVOLVEMENT PROFILE	permit	\$24,000	\$24,000	\$22,500	\$18,000	\$15,000
FINANCIAL RESPONSIBILITY	yearly	\$78,000	\$74,000	\$69,000	\$67,000	\$58,000
TRAINING	annual	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
HRA - QUESTIONNAIRE	permit	\$77,000	\$66,000	\$56,000	\$46,000	\$36,000
HRA -SCREENING LEVEL	permit	\$0	\$0	\$0	\$0	\$0
HRA -BASELINE	permit	\$194,000	\$168,000	\$142,000	\$116,000	\$90,000
TOTAL PER YEAR		\$473,600	\$410,700	\$369,700	\$322,000	\$270,100

**Explicit Costs for Additional Requirements - ALTERNATIVE 2 VIOLATIONS SCORING PROCEDURE WOULD INCLUDE CLASS I, CLASS 2 & MINOR VIOLATIONS
- NO DISTICTION FOR EXTENT OF DEVIATION OR POTENTIAL FOR HARM**

VIOLATIONS SCORING PROCEDURE (VSP)	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			DTSC COST RECOVERY
								S	M	L	
From Envirostor	0	29	22	12	16	3	82	63		19	82
ANNUAL Estimate of Impacted Facilities	A	0	15	13	6	9	44	34		10	44
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94	\$57		\$57	
Staff hours	C	0	2	2	2	8	8	16		28	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98		\$98	
Management hours	E	0	0	0	0	0	0	2		4	
Cost per facility = B*C + D*E	F	\$0	\$190	\$190	\$190	\$750	\$750	\$1,110		\$1,990	
Cost for each category = A*F	G	\$0	\$2,850	\$2,470	\$1,140	\$6,750	\$750	\$37,740		\$19,900	\$57,640
Average cost per facility = G/A	H						\$320			\$1,300	\$1,300
Total Annual Cost = A * H											\$14,100
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$3,200		\$5,100	\$13,000
ANNUAL INSPECTIONS & VSP - 22-40								\$7,000		\$12,800	\$29,000
ANNUAL TOTAL PER YEAR - 32 to 56 FACILITIES								\$10,200		\$17,900	\$42,000
											\$73,000

VSP - DISPUTE DOCUMENT	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			DTSC COST RECOVERY
								S	M	L	
From Envirostor	0	29	22	12	16	3	82	63		19	82
ANNUAL Estimate of Impacted Facilities	A	0	4	3	2	3	13	9		4	13
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94	\$77		\$77	
Staff hours	C	0	80	80	80	80	80	16		28	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98		\$98	
Management hours	E	0	16	16	16	16	16	40		40	
Cost per facility = B*C + D*E	F	\$0	\$9,260	\$9,260	\$9,260	\$9,260	\$9,260	\$5,150		\$6,080	
Cost for each category = A*F	G	\$0	\$37,040	\$27,780	\$18,520	\$27,780	\$9,260	\$46,350		\$24,320	\$70,670
Average cost per facility = G/A	H						\$9,260			\$5,400	\$5,400
Total Annual Cost = A * H											\$120,400
INSPECTIONS WITH CLASS 1 VIOLATIONS RANGE PER YEAR - 8 to 18 TSDFs								\$148,200		\$222,200	\$86,400
											\$129,600

VSP - AUDITS	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			DTSC COST RECOVERY
								S	M	L	
From Envirostor	0	29	22	12	16	3	82	63		20	83
ANNUAL Estimate of Impacted Facilities	A	0	1	0	1	1	3	2		1	3
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94	\$57		\$57	
Staff hours	C	0	96	96	186	280	280	40		80	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109	\$98		\$98	
Management hours	E	0	20	20	36	48	48	8		16	
Cost per facility = B*C + D*E	F	\$0	\$11,200	\$11,200	\$21,400	\$31,600	\$31,600	\$3,100		\$6,100	
Cost for each category = A*F	G	\$0	\$11,200	\$0	\$21,400	\$31,600	\$0	\$64,200		\$6,100	\$12,300
Average cost per facility = G/A	H						\$21,400			\$4,100	\$4,100
Total Annual Cost = A * H											\$64,200
ANNUAL VSP AUDITS - 2-4 TSDFs								\$43,000		\$86,000	\$8,000
											\$16,000

2. COMMUNITY PROFILE	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities	DTSC COST RECOVERY				
								S	M	L		S	M	L	TOTAL # of Facilities	
From Envirostor		27	29	22	12	16	3	109	56	34	19	109	56	34	19	109
ANNUAL Estimate of Impacted Facilities	A	3	4	3	1	2	0	13	7	4	2	13	7	4	2	13
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94	\$94		\$76	\$76	\$76	\$145	\$214	\$214	\$214	
Staff hours	C	32	32	52	52	72	72		16	24	36		16	24	36	
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98	\$264	\$264	\$264	\$264	
Management hours	E	8	8	8	8	8	8		0	0	0		0	0	0	
Cost per facility = B*C + D*E	F	\$3,900	\$3,900	\$5,800	\$5,800	\$7,600	\$7,600		\$1,200	\$1,800	\$2,700		\$3,400	\$5,100	\$7,700	
Cost for each category = A*F	G	\$11,700	\$15,600	\$17,400	\$5,800	\$15,200	\$0	\$65,700	\$8,000	\$7,000	\$5,000	\$20,000	\$24,000	\$20,000	\$15,000	\$59,000
Average cost per facility = G/A	H							\$5,100				\$1,500				\$4,500
Total Annual Cost = A * H								\$66,300				\$20,000				\$59,000
APPLICATIONS RANGE PER YEAR - 10 to 16 TSDFs								\$51,000				\$15,000				\$24,000

3. FINANCIAL RESPONSIBILITY	Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities	DTSC Review			TOTAL # of Facilities	DTSC COST RECOVERY				
								S	M	L		S	M	L	TOTAL # of Facilities	
From Envirostor		27	29	22	12	16	3	109	56	34	19	109				
Number of Federal Facilities		0	0	5	0	5	0	10	0	5	5	10				
Total w/o Federal Facilities		27	29	17	12	11	3	99	56	29	14	99				
ANNUAL Estimate of Impacted Facilities	A	7	8	5	3	3	1	27	15	8	4	27				
Staff Hourly Rate	B	\$78	\$78	\$78	\$78	\$78	\$78		\$61	\$61	\$61					
Staff hours	C	60	60	60	120	120	120		20	40	80					
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98					
Management hours	E	8	8	8	8	16	16		2	2	4					
Cost per facility = B*C + D*E	F	\$5,600	\$5,600	\$5,600	\$10,200	\$11,100	\$11,100		\$1,400	\$2,600	\$5,300					
Cost for each category = A*F	G	\$39,200	\$44,800	\$28,000	\$30,600	\$33,300	\$11,100	\$187,000	\$21,000	\$20,800	\$21,200	\$63,000				
Average cost per facility = G/A	H							\$6,900				\$2,300				
Total Annual Cost = A * H								\$186,300				\$62,100				
APPLICATIONS AVERAGE PER YEAR - 9 to 15 TSDFs without Federal Facilities								\$62,000				\$21,000				\$35,000
ANNUAL FINANCIAL RECORDS REVIEW INSPECTIONS - 16 TO 19								\$110,000				\$37,000				\$44,000
ANNUAL INSPECTIONS & APPLICATIONS - 25-34 ¹								\$173,000				\$58,000				\$78,000

4. TRAINING	Number of Employees	0-9	10-49	50-99	Over 100	# of Facilities	Total	DTSC Review			WLS	DTSC COST RECOVERY				
								S	M	L		S	M	L	TOTAL # of Facilities	
From 2012 Census data		52	32	8	4		96									
Adjusted up 14% to account for 109 TSDFs	A	59	36	9	5		109									
Staff Hourly Rate	B	\$94	\$94	\$94	\$94				\$76	\$76	\$76					
Staff hours	C	8	12	14	16				2	4	6					
Management Hourly Rate	D	\$109	\$109	\$109	\$109				\$98	\$98	\$98					
Management hours	E	2	2	2	2				0	0	0					
Cost per facility = B*C + D*E	F	\$1,000	\$1,300	\$1,500	\$1,700				\$150	\$300	\$460					
Cost for each category = A*F	G	\$59,280	\$47,424	\$13,680	\$7,752		\$128,136		\$8,892	\$13,680	\$2,098	\$24,700				
Average cost per facility = G/A	H						\$1,200					\$227				
Total Annual Cost = A * H							\$131,300					\$24,700				
AVERAGE TOTAL PER YEAR - 109 FACILITIES							\$128,000					\$24,700				

										DTSC COST RECOVERY							
5. HEALTH RISK ASSESSMENT (HRA) - QUESTIONNAIRE										DTSC Review				DTSC Review			
Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities		S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities		
From Envirostor	0	29	22	12	16	3	82	29	34	19	82	29	34	19	82		
ANNUAL Estimate of Impacted Facilities	A	4	3	2	2	0	11	4	5	2	11	4	5	2	11		
Staff Hourly Rate	B	\$94	\$94	\$94	\$94	\$94		\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	80	80	120	120		40	60	80		40	60	80			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	8	8	16	16		4	4	4		4	4	4			
Cost per facility = B*C + D*E	F	\$0	\$8,400	\$8,400	\$13,000	\$13,000	\$13,000	\$3,700	\$5,400	\$7,000		\$8,900	\$12,900	\$16,800			
Cost for each category = A*F	G	\$0	\$33,600	\$25,200	\$26,000	\$26,000	\$0	\$14,800	\$27,000	\$14,000	\$55,800	\$35,600	\$64,500	\$33,600	\$133,700		
Average cost per facility = G/A	H						\$10,100				\$5,100				\$12,200		
Total Annual Cost = A * H															\$56,100	\$134,200	
APPLICATIONS RANGE PER YEAR - 7 to 15 TSDFs							\$71,000				\$36,000				\$85,000	\$183,000	

										DTSC COST RECOVERY							
5. HEALTH RISK ASSESSMENT - NO FURTHER ACTION NEEDED										DTSC Review				DTSC Review			
Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities		S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities		
TOTAL Estimate of Impacted Facilities	0	11	5	2	0	0	18	11	7	0	18	11	7	0	18		
ANNUAL Estimate of Impacted Facilities	A	0	1	1	0	0	3	1	2	0	3	1	2	0	3		
Average cost per facility	H	\$0	\$0	\$0	\$0	\$0	\$0				\$0				\$0		
Total Annual Cost = A * H											\$0				\$0	\$0	
APPLICATIONS RANGE PER YEAR - 3 to 5 TSDFs							\$0				\$0				\$0	\$0	

										DTSC COST RECOVERY							
5. HEALTH RISK ASSESSMENT - SCREENING LEVEL										DTSC Review				DTSC Review			
Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities		S	M	WLS L	TOTAL # of Facilities	S	M	WLS L	TOTAL # of Facilities		
TOTAL Estimate of Impacted Facilities	0	18	17	10	5	0	50	18	27	5	50	18	27	5	50		
ANNUAL Estimate of Impacted Facilities	A	0	2	2	1	1	6	2	3	1	6	2	3	1	6		
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109		\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	240	240	360	480		80	120	160		80	120	160			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	24	24	40	40		8	12	12		8	12	12			
Cost per facility = B*C + D*E	F	\$0	\$28,800	\$28,800	\$43,600	\$56,700	\$56,700	\$7,400	\$11,100	\$14,500		\$17,900	\$26,800	\$34,700			
Cost for each category = A*F	G	\$0	\$57,600	\$57,600	\$43,600	\$56,700	\$0	\$14,800	\$33,300	\$14,500	\$62,600	\$35,800	\$80,400	\$34,700	\$150,900		
Average cost per facility = G/A	H						\$35,900				\$10,400				\$25,200		
Total Annual Cost = A * H															\$62,400	\$151,200	
APPLICATIONS RANGE PER YEAR - 4 - 9 TSDFs							\$144,000				\$42,000				\$94,000	\$227,000	

										DTSC COST RECOVERY							
5. HEALTH RISK ASSESSMENT - BASELINE										DTSC Review				DTSC Review			
Postclose	Standardized Permit	Storage Only	Treatment small	Treatment large	Landfill	TOTAL # of Facilities		S	M	L	TOTAL # of Facilities	S	M	L	TOTAL # of Facilities		
TOTAL Estimate of Impacted Facilities	0	0	0	0	11	3	14	0	0	14	14	0	0	14	14		
ANNUAL Estimate of Impacted Facilities	A	0	0	0	1.5	0	1.5	0	0	1.5	1.5	0	0	1.5	1.5		
Staff Hourly Rate	B	\$109	\$109	\$109	\$109	\$109		\$83	\$83	\$83		\$197	\$197	\$197			
Staff hours	C	0	640	960	960	1280		96	132	240		96	132	240			
Management Hourly Rate	D	\$109	\$109	\$109	\$109	\$109		\$98	\$98	\$98		\$264	\$264	\$264			
Management hours	E	0	24	24	40	40		8	16	24		8	16	24			
Cost per facility = B*C + D*E	F	\$0	\$72,400	\$107,300	\$109,000	\$143,900	\$143,900	\$8,800	\$12,500	\$22,300		\$21,000	\$30,200	\$53,600			
Cost for each category = A*F	G	\$0	\$0	\$0	\$215,850	\$0	\$215,850	\$0	\$0	\$33,450	\$33,450	\$0	\$0	\$80,400	\$80,400		
Average cost per facility = G/A	H						\$143,900				\$22,300				\$53,600		
Total Annual Cost = A * H															\$33,500	\$80,400	
APPLICATIONS RANGE PER YEAR - 1 to 2 TSDFs							\$144,000				\$22,000				\$45,000	\$107,000	

TABLE 1 FACILITY COSTS					
SUMMARY TABLE - TOTALS PER YEAR					
	RANGE	FACILITY PREPARATION ESTIMATE			
		LOW*	TYPICAL*	HIGH*	
VIOLATIONS SCORING PROCEDURE SCORES	A	\$190	\$320	\$750	annual
VSP - DISPUTE DOCUMENT	V	\$0	\$0	\$9,260	varies
VSP - AUDIT	V	\$0	\$21,400	\$31,600	varies
COMMUNITY PROFILE	P	\$3,900	\$5,100	\$7,600	permit application
COMMUNITY PROFILE COST RECOVERY	P	\$3,400	\$5,100	\$7,700	permit application
FINANCIAL RESPONSIBILITY	V	\$5,600	\$6,900	\$11,100	permit & triennial
TRAINING	A	\$1,000	\$1,200	\$1,700	annual
HRA - QUESTIONNAIRE	P	\$8,400	\$10,100	\$13,000	permit application
HRA -NO FURTHER ACTION	P	\$0	\$0	\$0	permit application
HRA -SCREENING LEVEL	P	\$28,800			permit application
HRA -SCREENING & BASELINE AVERAGE	P		\$57,500		permit application
HRA -BASELINE	P			\$143,900	permit application
HRA COST RECOVERY	P	\$26,800	\$43,700	\$70,400	permit application

TOTAL STATEWIDE DOLLAR COSTS				
RANGE - PERMIT APPLICATION COSTS	P	\$47,000	\$80,000	\$176,000
PERMITTING COST RECOVERY	P	\$30,200	\$48,800	\$78,100
TOTAL PERMITTING COSTS	P	\$77,200	\$128,800	\$254,100
RANGE - ANNUAL COSTS PER FACILITY ¹	A	\$3,100	\$3,800	\$15,400
		Permit Cost ^{2,3} =	\$5,569,900	
		Annual ⁴ =	\$1,644,000	
5 YEAR TOTAL - ALL FACILITIES (See note below for calculation)				\$7,214,000 *
B.1 from Table 4				\$7,181,000

Estimated Private Sector			
B.1.a =	\$77,200	& Annual =	\$3,100
B.1.b =	\$128,800	& Annual =	\$3,800
B.1 =	\$7,214,000		

* Note: This B.1 total is based on typical permit application cost times 70 (14 permits for each of 5 years) plus 5 times the annual costs per facility times the average number impacted.

B1 Assumptions: Avg number of applications per year is 14
 Avg number of annual facilities subject to inspections & VSP Scoring is 18. Not all facilities have class 1 violations.
 Avg number of facilities subject to FR review is 18 as part of an inspection.

1. Annual cost is VSP Scores + Financial Responsibility÷3 + Training
2. Permit Cost = (Typical cost) X (14 permits per year) X (5 years) for VSP+CP+FR.
 HRA Ques = (Typical Cost) X (11 permits per year) X (5 years); HRA Screening + Baseline= (Typical Cost) X (7.5 permits per year) X (5 years)
3. Five (5) years is used for estimated lifetime costs in Form 399, B1 if not equipment is required
4. Annual cost is the VSP Scores AVG + Financial Responsibility AVG + (Training) times (109 facilities)

TABLE 2 DTSC COSTS
SUMMARY TABLE - TOTALS PER YEAR

CURRENT YEAR TOTAL AND EACH OF TWO SUBSEQUENT YEARS

This estimate from summary Table 2 is based on average cost multiplied by average number of facilities impacted

Fiscal Effect on State Government
B.1 = **\$164,000** see summary



For the last quarter of the current year

Fiscal Effect on State Government
B.1 = **\$224,000** from Table 5

This second estimate from Tables 3-5 is based average cost multiplied by a customized number of facilities impacted each year

DTSC TOTAL COST PER YEAR - ALL FACILITIES

VSP SCORE	\$57,200
VSP AUDIT	\$12,000
COMMUNITY PROFILE	\$20,000
FINANCIAL RESPONSIBILITY	\$62,100
TRAINING	\$24,700
HRA QUESTIONNAIRE	\$56,100
HRA SCREENING	\$62,400
HRA BASELINE	\$33,500
TOTAL	\$328,000

DTSC STAFF REVIEW COSTS

RANGE PER FACILITY/YEAR

	LOW	HIGH
VSP SCORE	\$1,110	\$1,990
VSP AUDIT	\$3,100	\$6,100
COMMUNITY PROFILE	\$1,200	\$2,700
FINANCIAL RESPONSIBILITY	\$1,400	\$5,300
TRAINING	\$150	\$460
HRA - QUESTIONNAIRE	\$3,700	\$7,000
HRA -SCREENING LEVEL	\$7,400	\$0
HRA -BASELINE	\$0	\$22,300

TABLE 3 **NUMBER OF FACILITIES IMPACTED**

		CURRENT YEAR	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	range	86-95 ¹⁰	26-35	26-35	26-35	26-35
- AVG NUMBER INSPECTIONS	annual	19	19	18	17	16
- INITIAL FIRST YEAR SCORES		60				
- AVG NUMBER APPLICATIONS	permit	16	16	15	12	10
- AVERAGE NUMBER	yearly	95	35	33	29	26
VSP - DISPUTE DOCUMENTS	yearly	18	16	14	13	8
VSP - AUDIT	varies	1	2	3	3	3
COMMUNITY INVOLVEMENT PROFILE	permit	10-16	10-16	10-16	10-16	10-16
- AVERAGE NUMBER		16	16	15	12	10
FINANCIAL RESPONSIBILITY -permit ¹¹	permit	15	13	12	11	9
FINANCIAL RESPONSIBILITY-inspection	annual	16-19	16-19	16-19	16-19	16-19
- AVERAGE NUMBER		34	32	30	29	25
TRAINING	annual	109	109	109	109	109
HRA - QUESTIONNAIRE	permit	7-15	7-15	7-15	7-15	7-15
- AVERAGE NUMBER		15	13	11	9	7
HRA -SCREENING LEVEL	permit	4-9	4-9	4-9	4-9	4-9
- AVERAGE NUMBER		9	8	6	4	4
HRA -BASELINE	permit	1-2	1-2	1-2	1-2	1-2
- AVERAGE NUMBER		1	2	1	2	1

¹⁰This total include 20 additional calculations of VSP for the first year.

¹¹ Permit applications without federal facilities.

TABLE 4 - Facility Costs

TOTAL COST FOR FACILITIES IMPACTED BASED ON AVERAGE COST

		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	annual	\$30,400	\$11,200	\$10,600	\$9,300	\$8,300
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$21,400	\$42,800	\$64,200	\$64,200	\$64,200
COMMUNITY INVOLVEMENT PROFILE	permit	\$81,600	\$81,600	\$76,500	\$61,200	\$51,000
COMMUNITY PROFILE COST RECOVERY	cost recovery	\$72,000	\$72,000	\$67,500	\$54,000	\$45,000
FINANCIAL RESPONSIBILITY	permit & annual	\$234,600	\$220,800	\$207,000	\$200,100	\$172,500
TRAINING	annual	\$130,800	\$130,800	\$130,800	\$130,800	\$130,800
HRA - QUESTIONNAIRE	permit	\$151,500	\$131,300	\$111,100	\$90,900	\$70,700
HRA -SCREENING LEVEL	permit	\$323,100	\$287,200	\$215,400	\$143,600	\$143,600
HRA -BASELINE	permit	\$143,900	\$287,800	\$143,900	\$287,800	\$143,900
HRA COST RECOVERY	cost recovery	\$463,400	\$467,400	\$339,000	\$317,800	\$239,800
TOTAL PER YEAR		\$1,652,700	\$1,732,900	\$1,366,000	\$1,359,700	\$1,069,800
B.1. - FIVE YEAR TOTAL =		\$7,181,000				

**TABLE 5 - DTSC Costs
CURRENT YEAR AND SUBSEQUENT YEARS**

TOTAL COST FOR DTSC BASED ON AVERAGE COST

		CURRENT YEAR	CURRENT YEAR +1	CURRENT YEAR +2	YEAR 4	YEAR 5
VIOLATIONS SCORING PROCEDURE SCORES	annual	\$123,500	\$45,500	\$42,900	\$37,700	\$33,800
VSP - DISPUTE DOCUMENTS	discretionary	\$0	\$0	\$0	\$0	\$0
VSP - AUDIT	annual	\$4,100	\$8,200	\$12,300	\$12,300	\$12,300
COMMUNITY INVOLVEMENT PROFILE	permit	\$24,000	\$24,000	\$22,500	\$18,000	\$15,000
FINANCIAL RESPONSIBILITY	annual	\$78,000	\$74,000	\$69,000	\$67,000	\$58,000
TRAINING	annual	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
HRA - QUESTIONNAIRE	permit	\$77,000	\$66,000	\$56,000	\$46,000	\$36,000
HRA -SCREENING LEVEL	permit	\$94,000	\$83,000	\$62,000	\$42,000	\$42,000
HRA -BASELINE	permit	\$22,000	\$45,000	\$22,000	\$45,000	\$22,000
TOTAL PER YEAR		\$447,600	\$370,700	\$311,700	\$293,000	\$244,100

REASONABLE ALTERNATIVES CONSIDERED

+	Minimal Additional Costs	-	Minimal Less Costs
++	Moderate Additional Costs	--	Moderate Less Costs
+++	Significant Additional Cost	---	Significant Less Cost

VIOLATIONS SCORING PROCEDURE (VSP) SB 673 Criteria - Number and types of past violations that will result in a denial		Effect on Cost
1	<p>Draft Regulations that establish grounds for denial or suspension of a permit based on criteria other than DTSC's Penalty Regulations.</p> <p>There are criteria other than those previously promulgated in regulations by DTSC that DTSC could rely on in developing these regulations. That is, the enabling legislation that authorizes and mandates that DTSC adopt regulations did not specify the required content of the regulations. Rather, the enabling legislation specified a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. (See Health & Safety Code section 25200.21.)</p> <p>The current VSP proposal takes the number and types of serious Class I violations and uses the existing penalty assessment methods to create a tool to evaluate a facility's compliance history. DTSC will determine the gravity of each violation based on the potential for harm and extent of deviation of a violation and will use these criterial to calculate a score for violation, each inspection, and the overall facility VSP score.</p> <p>DTSC considered other potential approaches to evaluate the compliance history of a hazardous waste facility and determined other approaches were not as appropriate as the criteria selected here in carrying out the legislative mandate. Other approaches are:</p> <ul style="list-style-type: none"> • Use Class 1, Class 2, and minor violations instead of only using Class I <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ would provide a wider range of violations to consider. ○ Cons: <ul style="list-style-type: none"> ▪ would not be based solely on serious violations and/or noncompliance that threaten public health or safety or the environment. The decision to deny, suspend, or revoke a facility permit has significant ramifications; ▪ would expand the number of facilities being evaluated; ▪ would increase violation workload by about 250% over the ten year period (2008-2016); ▪ would include criteria for violations that have not been documented for class 2 and minor violations; and ▪ would increase staff workload to assess violations that are not categorized by potential harm or extent of deviation. ▪ 	++

	<ul style="list-style-type: none"> • use all environmental violations instead of only using Class I <ul style="list-style-type: none"> ○ Pros <ul style="list-style-type: none"> ▪ would provide a wider range of violations to consider. ○ Cons: <ul style="list-style-type: none"> ▪ does not use existing methodologies and processes for addressing hazardous waste management violations and/or noncompliance already authorized by the Legislature; ▪ would increase violation workload by an unknown amount. It would require DTSC to consult or visit air quality management districts, and regional water quality control boards to review files or obtain access to databases; ▪ would include criteria for violations that are very different and there would be extremely difficult to make equitable a Clean Air Act or a Clean Water Act violation with hazardous waste violations; and ▪ would have to create an entire new methodology to assess violations and train staff. <p>This rejected alternative would have been unduly complex. More specifically, it would have created two different approaches for evaluating the same thing—violations of hazardous waste management requirements. Furthermore, for future violations found during a compliance inspection, two separate sets of criteria would have to be documented—one for penalties and one for these regulations. Newer criteria would be absent from older inspection reports, which would make it impossible to assess these violations and difficult to ensure consistency. The regulations primarily impact DTSC in the carrying out of its duties in implementing its permitting program.</p>	
2	<p>Modify the proposed facility VSP score process by changing some of the principal input factors or the formula for the computation.</p> <p>The proposed methodology is based on the existing penalty matrix found in existing regulations pursuant to subsection 66272.62(d) of Title 22, California Code of Regulations, Division 4.5. Instead of using the matrix to calculate a penalty amount, the proposal uses the matrix to calculate a VSP score for each violation, each inspection, and each facility.</p> <p>About 60% of the facilities have zero Class 1 violations for the time period from 2008 until 2016; about 35% of the facilities have an average of one or less Class 1 violations during the same time period; and only about 5% of the facilities have greater than one Class 1 violation each year for the ten year time period.</p> <p>An alternative is that DTSC could modify the facility VSP score based on the following variables:</p> <ul style="list-style-type: none"> • A total score of all violations instead of an average score; <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ would simplify the process with grand total VSP score. 	+

	<ul style="list-style-type: none"> ○ Cons: <ul style="list-style-type: none"> ▪ would not account for the varying inspection intervals. Hazardous waste landfills may be inspected multiple times a year versus a standardize permit facility that is inspected every two to four years. The greater the number of inspections may potentially lead to a higher total. ● A variable time period based on the time from permit issuance; <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ would reset the VSP when a permit is issued and the facility would start with a score of zero. ○ Cons: <ul style="list-style-type: none"> ▪ might lead to unequal comparisons due to time frames. We might be comparing a compliance history based on one year to one based on 10 years. ● A time frame adjusted to reflect a change of facility ownership; <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ would reset the VSP with a change of ownership and the facility would start with a score of zero. ○ Cons: <ul style="list-style-type: none"> ▪ might lead to facilities being sold when the VSP score becomes too high. There is no way to ensure the new owners would operate the facility differently than the previous owner. ● A score adjusted to account for intent, complexity of the facility's operations, or economic benefit gained through noncompliance; <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ would add criteria that exist in current enforcement regulations. This would enhance and differentiate the more serious violations. ○ Cons: <ul style="list-style-type: none"> ▪ Would apply to all violations and increase workload for staff when compared to the proposed regulations. ● Violations expanded to include Class II and minor violations instead of only Class I violations. <ul style="list-style-type: none"> ○ Pros: <ul style="list-style-type: none"> ▪ See above. ○ Cons: <ul style="list-style-type: none"> ▪ See above. <p>To optimize staff work time, DTSC's objective was to keep the calculation simple and remove factors that may unduly complicate the evaluation of the compliance history. Because the majority of facilities average have less than one violation during the ten year time period, keeping the scoring procedure simple allows DTSC to do a more in-depth analysis on the facilities with higher number of violations.</p>	
--	---	--

3	<p>Draft a Complex, Multi-Staged Dispute Resolution Process for the Preliminary Inspection Score.</p> <p>DTSC rejected this alternative because it would be unnecessarily complicated and time consuming for reviewing fairly straightforward decision making by DTSC—arriving at preliminary inspection scores. DTSC has adopted a multi-staged, more formal dispute resolution procedure for other regulations, such as the Safer Consumer Products program, but did not feel a similar approach would be appropriate here. The decisions subject to dispute resolution for this program are not nearly as technically or scientifically complex; thus, the decisions in this instance do not warrant the same dispute resolution approach.</p>	++
FINANCIAL ASSURANCE		
1	<p>Allow corporations to use the existing financial test criteria if they also achieve a specified Altman Z- Score.</p> <p>This alternative would only modify the financial test. The existing financial test mechanisms have not been modified since their adoption in the federal regulations in 1982. One of the proposals DTSC asked for comment on previously was the use of the Altman Z-Score, a measure of financial insolvency.</p> <p>In an earlier proposal, DTSC indicated that a corporation would need an Altman Z-Score of 3.0 or greater to qualify for use of the financial test mechanism to meet financial assurance requirements. DTSC rejected this proposal because of the limited nature of the data on which this rating is based. The data was collected from midsized manufacturing companies. The universe of companies using the financial test mechanism in California represents a broader range of size and industry (more than just manufacturing). DTSC believes this test does not adequately reflect the actual businesses DTSC regulates.</p>	Unknown
2	<p>The modified financial test mechanism used by the State of Alabama.</p> <p>This test allows single parent captive insurance companies to provide financial assurance, when these companies qualify for and make all filings required by the financial test. However, DTSC concluded that any company qualifying for this hybrid mechanism could also pass the financial test, therefore DTSC considered this mechanism unnecessary and unduly cumbersome.</p>	Unknown
TRAINING		
1	<p>DTSC could have revamped the entirety of the regulations governing training requirements at hazardous waste facilities.</p> <p>DTSC determined that such a wide scope of regulatory changes was not necessary. DTSC concluded that a massive overhaul of the training requirements would be unduly complex and expensive for facilities and DTSC rejected this approach on this basis. This alternative would have made California’s training requirements significantly different</p>	+++

	than the federal RCRA requirements, thus, would not conform to corresponding regulations as required by Health and Safety Code section 25159.5.	
COMMUNITY INVOLVEMENT PROFILE		
1	<p>Mandatory public meeting for all facilities applying for hazardous waste permits to operate.</p> <p>This alternative would have extended the requirement to all facilities seeking permits for hazardous waste management units to hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. Section 66271.31 of Title 22 of the California Code of Regulations currently applies to RCRA facilities applying for an initial permit or to applicants seeking renewal of permits that include proposing a significant change in facility operations. DTSC determined it was not necessary for this rulemaking effort or appropriate to extend this requirement to non-RCRA facilities at this time. This is because non-RCRA facilities are, by definition, less complicated and controversial.</p>	+
2	<p>Submittal of a Community Involvement Profile before permit application is required to be submitted.</p> <p>This approach would have required the Community Involvement Profile to be submitted six months before the due date for the Part B permit application. Having this information in advance of the permit application would be beneficial in theory. However, without the Part B application, it would be more difficult to review the community involvement profile information.</p>	Neutral
FACILITY HUMAN HEALTH RISK ASSESSMENT		
1	<p>Require a Baseline health risk assessment for all facilities.</p> <p>This approach runs contrary to current accepted practices for health risk assessments to tier assessments that result in scientifically sound, assessments. Hazardous waste facilities do not all pose the same human health impacts, so using the most comprehensive method for all HRAs is not an efficient use of resources. A baseline assessment would impose regulatory constraints and inflexibility, whereas a tiered approach provide flexibility based on site specific conditions. If DTSC requires a HRA for all hazardous waste facilities, there is an increasing need for innovative, practical and cost-effective approaches to address the methodology.</p>	+++