

Department of Toxic
Substances Control

Permitting Process Review and
Analysis

Final Report

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About CPS HR Consulting:

CPS HR Consulting is a Sacramento-based non-profit corporation, established as a California joint powers authority in 1985. Headquartered in Sacramento, CPS HR also has offices in Maryland and Texas. It is governed by a Board of Directors representing government agencies throughout the United States. With over 280 team members, CPS serves more than 1,200 public and nonprofit clients throughout the United States and Canada.

CPS helps its clients across a range of issues including classification and pay, organizational reviews, program review, workforce and succession planning, testing, EEO and related investigations, and policy development.

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Executive Summary

The Department of Toxic Substances Control (DTSC) entered into a contract with CPS HR Consulting (CPS HR) on Feb. 1, 2013¹, to conduct a Permitting Process Review and Analysis. The objective was to answer the following questions:

- What is the process of making decisions?
- What factors must go into making a permit determination²?
- What must be measured?

CPS HR was asked to review the existing permitting program and develop a recommended standardized process with clear decision criteria and corresponding standards of performance. CPS HR was also asked to document the changes in the permitting process over the past five years based primarily on the record obtained from past internal review, and to obtain perspectives of designated subject matter experts³ including representatives from the environmentalist, environmental justice, and industry communities. This report provides findings in each defined area.

By way of background, the DTSC Office of Permitting is authorized to issue hazardous waste facilities permits, and to impose conditions specifying the types of hazardous waste that may be accepted for transfer, storage, treatment, or disposal in California. Currently there are 117 permitted Operating Facilities, including 28 Post Closure Facilities (closed and going through final remediation) in the State, that provide for the treatment, storage, or disposal of substances regulated as hazardous waste under federal and state law. A total of 1.82 billion pounds of California toxic waste were disposed of in these facilities in 2012, with 62% treated to the point where it no longer met toxic standards, and 38% placed in landfills. (Table 28, page 100) From a staffing standpoint, currently there are 29 authorized positions allocated to the Office of Permitting, located in Sacramento, Berkeley, and Chatsworth.

There has been significant dissatisfaction with the performance of the Permitting Office, directed at the cost and length of time in completing the permit process and a perception that the Office does not deny or revoke permits as often as it should to address community concerns. The stakeholder interviews conducted as part of this study identified the following major concerns:

1. The need to create clear and objective criteria for making denial/revocation decisions that are based on valid standards of performance and risk;
2. A clear standard for violations that would lead to a denial or revocation;
3. The need for the Department to document and measure a “scorecard” of attributes that would be perceived as a “good result” for the permitting program;

¹ As a Joint Powers Agency originally established by the state, CPS is exempt from competitive bidding requirements under Government Code Sections 6500 and 6502, and as noted in the State Contracting Manual at Section 3.13. All its contracts are subject to review and approval by the Department of General Services.

² Based primarily on the directed review of statutory and regulatory mandates, along with the perspectives of subject matter experts, and inputs gathered in Task 5.

³ See Appendix A for a list of participating subject matter experts.

4. The need to identify and measure appropriate permitting process timelines, and;
5. The need to document, maintain and implement effective financial assurance standards to ensure that facilities can meet their permitted obligations.

The objective of this study was to provide a review of the DTSC Permit Process to develop a standardized process with clear decision criteria and corresponding standards of performance. Its primary conclusions and recommendations follow.

Permitting Actions Not Timely:

The study found that permitting decisions are not made on a timely basis, and that lengthy and potentially preventable delays occur due to a lack of standard process and a failure to include all processing requirements in a predictable, standard order that is identified and shared with relevant permitting staff. A lack of sufficient staffing in the unit (Table 29, page 103) also contributes to lengthy processing times, and if current staffing levels are maintained the average processing time can be expected to increase, rather than improve, with an increased number of anticipated permits in the coming years. Currently, permit renewals average 4.3 years from start to finish, with permits issued under Federal Resource Conservation and Recovery Act (RCRA) authority taking 5.0 years and those issued under California Standard permit authority averaging 3.1 years.

This study made contact with three state Hazardous Waste Disposal Offices recommended by the Federal EPA as having “good permitting programs,” and learned that two of the three considered a permit renewal period of as little as 180 days to be a typical practice, with up to two years as an infrequent occurrence (see pages 95-96). In addition, the analysis conducted in this study suggests that an average processing time of from 1.5 to 2.2 years should be achievable, and should be a short-term goal of the California permitting program (see Chapter 8, Pages 96). This is obviously a much shorter period than is now common in California, which currently has an average of 4.3 years per permit.

The study found that the overall average permitting process time, which was 5.0 years prior to FY2003, improved to a 3.2 year average for the period from FY2003 to FY2007, before again increasing to 4.3 years in the most recent time period (from FY2008 through part of FY2013). So while there was an improvement from the oldest period studied to the most recent, the current trend is again towards longer processing time.

Staffing Increase is Necessary:

The recent increase in permit processing time is attributed to at least two major factors. First is a reduction in staffing in the office. Permitting staffing has been reduced significantly from 95.8 personnel years utilized in FY 2007 to just 24.6 personnel years utilized in FY 2009. The initial change was a response to the economic recession in 2009, and its required state budget reductions. However, less than 26.1 personnel years have been utilized in each year since that time (See Table 1, page 26). This study concludes that Department should immediately seek authorization through the budget process to increase its staffing to a total 35 positions (a 20% increase in its current staffing authorization), and should seek to hire and train those positions as quickly as possible. (Chapter 10).

The most positive result identified regarding the Office of Permitting is a steady, long-term increase in the number of operating facilities with “current” permits. This has increased from just 45% in 2007, to 68% in 2009, and to 75% in 2013. However, given increasing permit renewals in future years (Table 33, page 108), it is likely that this steady progress will stop and reverse in the near future with the existing level of staffing. Increased hiring is necessary to avoid an increase in average permit processing time, and to avoid an increase in the number of toxic waste facilities operating without a permit.

Poor Management Practices:

The second primary reason for permitting delays is poor management practices. Between December 2009 and June 2013, the Permitting Program Office did not maintain consistent uniform management, supervisory structure or clear consistent organizational structure. This is demonstrated by the fact that program managers were either re-assigned to other duties or vacant for a majority of the time period from July 2009 through July 2013, while program supervisor positions for all personnel in the unit were either not authorized or vacant for more than half of this period. In other words, there was a four-year period in which direct supervision of personnel lapsed.

The failures to use a standard permit process (detailed in Chapter 5, and explained further below) likely occurred or became worse during that period. Incrementally since that time, the Department has restored a one-to-one relationship between each permitting employee and a supervisor, and as a result, no recommendations regarding restoration of management and supervision were considered necessary. However, this study has concluded that the use of telecommuting in many offices is a contributory factor to less-than-optimal program efficiency and effectiveness. (See Chapter 4, page 32).

It is recommended that DTSC continues to strengthen its organizational structure for permitting staff through a focus on in-person meetings, in-office work, and updated training. Telecommuting should be severely limited or revoked for at least a six-month period while these necessary improvements are put in place. It is recommended that all permit staff duty statements be brought up-to-date along with goals and performance appraisals during this period⁴. Necessary updates to standard templates, work aids, and work processes should be achieved. Work units should also use this time to build solid relationships with their supervisors. Maintaining traditional in-office work groups, with a supervisor at each location is the best method of improving communication and assisting with re-establishment of efficient processes and work production.

Clear Standard Process:

This study concludes that while many aspects of the work process required for a permit renewal are well defined and well known, most of the difficult or complex steps are not clear or well defined. (Chapter 5, pages 33-35). This is one of the most likely reasons for prolonged delays, and for future process improvement.

⁴ An annual update of Duty Statements and current performance standards are a requirement of CalHR, that had also lapsed within the Office of Permitting.

Specific process steps that need to be defined and supported are:

- When and how the CEQA process starts;
- When and how the Disclosure process start;
- When and how the Public Participation staff gets involved in the renewal process;
- Any standard process steps for review of the Part B Application and the associated Technical Review.

Much of the “process” knowledge within the Office of Permitting is in the individual professional knowledge of the DTSC staff which is interpretive and not documented. More importantly, a re-review of the Permit Renewal Team effort of 2007-2009 has not found any structural changes or permanent process changes that have been implemented that could cause significantly improved permit renewals in the future. The “lessons learned” from the Renewal team effort appear to have been misconstrued, and the actions taken after the team experience were damaging to management and supervision in the unit, as noted above.

A standard process is provided as a part of this study (pages 36-39) and it is recommended that it be adopted and used by supervisors as a standard for all permit renewal work in the future. In addition, supervisors and subject matter experts should supplement the process flowchart with instructive notes on the criteria for each decision and the sign-off standards for each process step. This new process must respond to the grey areas identified in this report as follows:

- A defined and coordinated initial process review by DTSC CEQA staff and DTSC Community Involvement staff;
- Initial regular and on-going consultation between enforcement and permitting where necessary;
- A mandatory permit renewal meeting with the appropriate DTSC technical team and the permit applicant;
- A site visit between the appropriate DTSC technical team and the permit applicant early in the Technical Review.

This study also found that the largest share of total permitting time is taken in Technical Review, and that portion of the review comprises 2.7 years by itself -- 63% of the total processing time. This is the greatest potential area for processing time improvement. At the same time, it was learned that no formal process flow or clear instructional materials exist with regard to how to conduct that portion of the review. It is therefore recommended that the Permitting Office develop instructional materials to support the Technical Review process flow. This should include clear and written decision-making criteria associated with each Section, and processing check sheets to match the process steps on the Part B flowchart. In addition, it is recommended that DTSC enter into a cooperative agreement with US EPA to: 1) Access its technical assistance in revision and design of permit processing procedures; 2) Provide materials and training on Technical Review.

Criteria for Denial and Revocation:

As noted already, the stakeholder interviews conducted as a part of this study learned that a principal stakeholder complaint is that there are no clear and objective criteria for making denial/revocation decisions that are based on valid standards of performance and threats. In fact, department officials

admit this is true. (Chapter 6 – Page 58.) Two significant and related factors are that there are no clear and objective standards for violations that would support a decision to deny or revoke a permit; and there is no standard for denial or revocation based on three issued Notices of Deficiency.

As a result, this study recommends the Department develop a new system of categorizing violations that reflects whether they present an immediate and direct threat to human health and safety, versus a less urgent threat that can be mitigated or resolved through further actions of the Department. The Department’s current definition of “Class 1 violations”, although mandated by law, includes both violations that pose immediate and direct threats along with many that are relatively low- or long-term threats. Until the Department has a system of violations that can distinguish between significant threats to human health and safety and lesser threats, it will not be able to provide an objective standard to guide its own staff actions and to inform the public that the significant threats have been mitigated through actions such as permit modification, denial or revocation.

In support of this kind of policy development, this study developed the following factors that might be used to support a decision to continue with permitting, versus those that might be used to support a denial or revocation action:

The following factors argue in favor of continued permitting:

- All aspects of its current operation are in compliance with law;
- Permittee has demonstrated open and prompt communication with DTSC and truthfulness about the operation and its impacts;
- The permittee or the Department on its behalf have communicated promptly and openly with the community around the facility regarding the pending permitting process;
- Any threat to human health or safety, or the environment, (identified through Corrective Action or outstanding violations) is properly identified and mitigated as required by law and regulation;
- There is financial capacity and commitment to complete a closure, or any required remediation, as well as all post-closure costs and adequate financial assurance has been provided.

The following factors argue against continued permitting:

- The existence of any “High Threat” violation which is not resolved in a timely manner;
- DTSC has issued three Notices of Deficiency, and the responses from the facility have been substantially incomplete, substantially unsatisfactory, or deficient;
- The continued operation of the facility poses a significant threat to human health or safety, or the environment, (identified through Corrective Action or outstanding violations) and the facility is not taking active steps to reduce that threat;
- Continuing or consistent delay in a scheduled response which is substantially unsatisfactory, or deficient, and that such unsatisfactory response was willful, or intentional;
- There is inadequate financial capacity and commitment to complete a closure, or any required remediation, and pay all post-closure costs.

It is recognized that such standards will need to be further defined and adopted through administrative law to become effective, and these are offered to the Department as a starting point for such actions.

Permitting Must have Valid Performance Benchmarks:

A series of operational, output, and outcome measures were developed to provide the basis of program performance management. These measures are provided in Chapter 9, pages 97-101. A field audit of a random sample of permit renewal files found that while 85% of these data fields have been entered in EnviroStor, 15% were missing. Additionally, only 43% of the identified critical data fields could be verified against actual records in the available Administrative Record with almost one third of those records containing discrepancies in the reported dates that averaged 45 days duration. While it was concluded that the EnviroStor record was adequate for macro-analysis of program timeliness, it was noted that improvements must be made.

This study recommends that the Department undertake significant improvement in data entry and validation. It recommends supervisory confirmation of all milestone dates input into EnviroStor as a double-check to the current practice of independent project manager entry. This practice will also confirm supervisors are aware of the completion of key permit process milestones, and ensure their intervention when prompt processing is delayed.

1) Objectives and Methodology

Project Objectives

The Department of Toxic Substances Control (DTSC) entered into a contract with CPS HR Consulting (CPS HR) on Feb. 1, 2013⁵, to conduct a Permitting Process Review and Analysis. The objective was to answer the following questions:

- What is the process of making decisions?
- What factors must go into making a permit determination⁶?
- What must be measured?

CPS HR was asked to review the existing permitting program and develop a recommended standardized process with clear decision criteria and corresponding standards of performance. CPS HR was also asked to document the changes in the permitting process over the past five years based primarily on the record obtained from 2007 and 2009 internal reviews, and to obtain perspectives of designated subject matter experts⁷ including representatives from the environmentalist, environmental justice, and industry communities. CPS HR reviewed and assessed the current timeliness of decisions, and evaluated the adequacy of permit program staffing. CPS HR was asked to assess whether there are any “grey areas” in the permit process, whether there are sufficient staff resources, and whether current resources are being used efficiently. CPS HR was also asked to use the information and analysis obtained to make recommendations for process improvement.

During the course of this study and analysis additional questions were posed, and even though not specifically included in the scope of contract work, every effort was made to provide responses based on information obtained⁸. These included the following:

- Are permits ever denied?
- At what point should a permit be denied?
- What should be the criteria for denying or revoking a permit?
- Is there denial after three notices of deficiency?
- Is the time, cost, and complexity of the process reasonable?
- What should the permitting program accomplish?
- How well is the permitting program meeting those expectations?
- What is working or is not working with the permitting process?

⁵ As a Joint Powers Agency originally established by the state, CPS is exempt from competitive bidding requirements under Government Code Sections 6500 and 6502, and as noted in the State Contracting Manual at Section 3.13. All its contracts are subject to review and approval by the Department of General Services.

⁶ Based primarily on the directed review of statutory and regulatory mandates, along with the perspectives of subject matter experts, and inputs gathered in Task 5.

⁷ See Appendix A for a list of participating subject matter experts.

⁸ Additional questions were raised by Project Advisors and identified stakeholders, both before and during the stakeholder discussions.

- How should the permitting and enforcement programs inter-relate?
- Is financial assurance being adequately addressed?

The scope of work tasked the consultants to work with DTSC management and external advisors to identify a diverse group of stakeholders and members of the public who could provide valuable perspective and recommendations on program performance, to attend the meetings and to obtain a record of comments provided. In order to obtain a high level of independence and objectivity, the contract was amended on April 14 to ask CPS HR to identify and organize the stakeholder meetings, to conduct these meetings and to provide the summary of all results. As noted below, this was done primarily through one-on-one interviews and a supplemental survey.

Project Methodology

The study was commissioned by the DTSC Department Director to provide an objective and independent analysis of the Permitting Process, following the framework of the Government Auditing Standards, 2011 Revision, and the Performance Audit criterion⁹. The Government Auditing Standards “provide a framework for performing high-quality audit work with competence, integrity, objectivity, and independence to provide accountability and to help improve government operations and services¹⁰.”

Two methods were used to ensure the independence of this study. First, CPS as a joint powers agency, is “at a level of government other than the one of which the audited entity is part¹¹,” and therefore meets one of the primary specified standards for “external review.” In addition, the DTSC Director recused herself and members of her staff as primary contract representatives, and asked two members of the Department Advisory Committee to serve as Project Advisors comprised of Thomas McHenry (Gibson Dunn) and Bill Magavern (Coalition for Clean Air). These project advisors met by conference call with the consultant team roughly every two weeks throughout the conduct of the project¹². The Project Advisors provided suggestions and guidance on: outreach to various stakeholders, current DTSC practices, policy and legal concerns and overall reporting. Jim Marxen, the DTSC Deputy Director of Communications served as the DTSC liaison to Departmental staff and as the primary contract representative. However, Mr. Marxen recused himself from any decisions regarding the project review work and from the approval of any project deliverables.

The General Standards of the Government Auditing Standards documents requirements for independence of review, including “Independence of Mind” and “Independence in Appearance.”¹³ Part 3.07(a) required auditors to apply the conceptual framework to identify threats to independence

⁹ Government Auditing Standards, 2011 Revision, US Government Accountability Office, Comptroller General of the United States, part 2.10.

¹⁰ Ibid, Government Auditing Standards page 5.

¹¹ Ibid, Government Auditing Standards, part 3.28a.

¹² The resumes/profiles for Mr. McHenry, Mr. Magavern, and CPS HR Project Manager, Mr. Mallory, summarizing their expertise, are included in Appendix A after the list of subject Matter Experts.

¹³ Part 3.02 a. and b.

and to “apply safeguards as necessary to eliminate the threats or reduce them to an acceptable level.”

In this regard, the CPS HR auditor noted two potential threats to independence. The first is related to the fact that one CPS HR review team member, Denzil Verardo, had served as a Special Assistant to the DTSC Director for performance management implementation, special projects and investigations, from 2006-2011, in Retired Annuitant Status. This potential bias was mitigated in that Verardo’s role was as a subject matter advisor to the Project Manager, and he did not develop, nor play a role in developing, any of the final project conclusions nor recommendations. In all, he served for less than 50 hours on the project – less than 6% of all project hours – primarily in an advisory role.

The second threat is based on the fact that CPS HR does perform non-audit services for DTSC, currently including two training projects regarding performance management and 360-degree assessment of the Department management staff. This second threat is mitigated in that the audit project is managed by Richard Mallory, and neither he nor his immediate supervisor, Roger Ganse, is within the CPS HR training group. Neither is subject to any influence or control by the manager and staff providing non-audit services.

That stated, this audit report can make an appropriate assertion of independence of its assessment, and its conclusions.

Since the initial project objectives call for a review of the permit process and its result, key tasks in the work plan were:

1. A review of past DTSC studies and conduct regarding permit processing;
2. The determination of a “primary process flow” for permitting decisions;
3. A field audit of a number of permitting cases;
4. A review of permitting process metrics;
5. Identification of permit tasks and staffing requirements.

All of these efforts, except for the field audit, will be described in subsequent chapters of this report. The field audit is described in the next section of this chapter, however, since its results are fundamental to understanding the accuracy of the EnviroStor¹⁴ data on which much of the subsequent report analysis is based.

A key issue for this report was the legal context of the permitting program. The project plan called for DTSC to provide “relevant statutory and regulatory mandates and procedures.” The legal mandate is fundamental in making the determination of whether the program is meeting its requirements. The Department’s Office of Legal Affairs provided a foundational White Paper on April 17, entitled “Department of Toxic Substances Control (DTSC) Regulatory Requirements for Permitting.” The White Paper is provided in Appendix B.

¹⁴ EnviroStor is the name of the DTSC facility database. It is used as the official operating system of the permitting program, and for release reporting.

One issue raised in the White Paper was whether a permit should be revoked after issuance of three notices of deficiency. The White Paper stated: “If the applicant does not respond adequately to three notices of deficiencies, DTSC is required to initiate proceedings to deny the permit application.” However, the White Paper did not define “adequately¹⁵”.

As a result, consultants posed several specific questions to legal and program staff to obtain those fundamental understandings.

The original project work plan called for an initial project meeting and webinar with all permitting staff, primarily to introduce the staff to the work underway, and how it would be conducted as the viewpoint of staff could be very helpful to better understand program results and issues. The “Employee Attitudes” (Chapter 7) were developed based on both the discussion at the meeting with all permitting employees on March 7, along with the results of a structured survey completed by all permitting staff (from April 9th to April 19th).

The additional work regarding the Stakeholder viewpoints is presented in Chapter 6.

This project work was initiated on Feb. 2, 2013, and was completed on Aug. 30, 2013.

¹⁵ This issue is further discussed in Chapter 6, page 59.

Field Audit of Permit Renewals

One of the core analytic reviews conducted by CPS HR was a review of a sample¹⁶ of permit renewals in the DTSC field offices. This was done primarily to validate that the data in EnviroStor was a reliable source for the broader permit program analysis desired for this study. The methodology used was to select a random sample from an alphabetical list of permitted facilities (provided in Appendix C), with the name of the associated field offices supervising each permittee. In this way consultants could go to each of three permitting program unit offices¹⁷, provide the names of the two randomly selected permit renewal files, and pull the Administrative File associated with that renewal. The Administrative File for each of two permit renewals was pulled in each Field Office, and compared to the same EnviroStor record.

The Administrative Record associated with each permit file was almost exclusively a paper file, kept in file rooms maintained by the DTSC Administrative Services, and populated with documents developed by Permitting Office staff. A significant share of the Administrative Record consisted of scanned hard copies, saved as electronic documents within EnviroStor. Almost all of the “hard copy” records reviewed in this audit were paper records, obtained from the Administrative Services file, which were consistently organized in chronological order. In a few cases, records were only found in the scanned format, with no associated paper record.

In five of six field audits, the Administrative files were pulled on-site¹⁸, and were all found to be relatively complete (as noted below), well-organized, neat, and entirely in chronological order. All the file rooms in the unit office locations appeared to be well-run and managed.

In completing the file review, consultants identified nine key data fields that were benchmarks for measuring process timeliness, and that were generally completed by permitting staff¹⁹. The audit first reviewed the selected EnviroStor record to see if there were dates entered for the nine benchmark fields, and then reviewed the associated Administrative Record to see if documents could

¹⁶ Since the master list consisted of just 118 records there was no formal selection protocol other than as follows. Files selected were limited to those for which permit renewals were approved, and in the period from 2005-2012. The selections in Cal Center Unit were made from the beginning and middle of alpha order ('A' and 'M'), those from Chatsworth from the middle and end of alpha order ('N' and 'R'), and from Berkeley from the beginning and end of alpha order ('A' and 'S').

¹⁷ Many DTSC employees still refer to the field locations as “Regional Offices,” which was their organizational structure prior to a broad department reorganization undertaken in 2008. In fact, there has been no consistent structure or naming for the field office locations since that time, and the term “unit” has been used to be consistent with a new staffing structure adopted by the Department in August, 2013. This structure will provide an on-site supervisor for permitting staff in each field unit.

¹⁸ The two files for the Berkeley Permitting Unit audit were named the night before the associated visit, because of concern that Administrative personnel might not be accessible on the day of the visit. Upon arrival, one of the two Administrative records was provided in a designated work area, and the other was not. The consultant was then able to visit the file room and pulled the file in the same manner as the others.

¹⁹ Consultants conducted a ‘beta’ audit at Cal-Center Unit, Highway 50 and Watt Avenue, Sacramento, to test and finalize the audit protocol later used in three unit offices.

be found to validate the date entries. A full record of each selected audit is provided in Appendix D. The six renewal actions reviewed included:

- AERC Com, Inc., Hayward, CA
- Aerojet General, Rancho Cordova, CA
- McCormick Selph, Hollister, CA
- Naval Air Station – North Island, Poway, CA
- Rho Chem, Inglewood, CA
- Shell Oil Products – Martinez, Martinez, CA.

One conclusion from the audit is that only 85% of the most critical data fields have been entered in EnviroStor, and 15% are missing. This study did not detect any pattern to the missing data fields – and therefore concluded there was no apparent intent to avoid any specific kind of reporting. However, the analysis found that just 43% of the identified critical data fields could be verified against actual records in the available Administrative Record. In addition, seven of those 23 data fields that could be verified had discrepancies in the reported dates that averaged 45 days duration. Six of the seven discrepancies (excluding the biggest one) averaged just 13 days variance, and it was concluded that the differences reflected imprecise recordation rather than an intent to misrepresent the record. Overall it was concluded is that the EnviroStor record is adequate for macro-analysis of program timeliness. However, it is noted that it is not a complete data record nor is it completely accurate.

Recommendation 1-1: The Department must initiate supervisory confirmation of all milestone dates input into EnviroStor as a double-check to the current practice of independent project manager entry, to ensure accurate input that matches the operational record. This practice will also confirm supervisor awareness of the completion of key permit process milestones, and invite their intervention when prompt processing is delayed.

Other Conclusions:

The close examination of the six permit renewal records as a part of this audit gave greater factual knowledge about the nature of permitting, and possible permit problems. The time for renewal of the audited permits ranged from a minimum of 2 years, 6 months in one instance (Aerojet General, Rancho Cordova), to 13 years, 5 months in another (Rho Chem of Inglewood). Initially, change in staffing was theoretically identified as a principal reason for the length of time for the renewal process. This audit found that was likely not true as the longest renewal was a project managed by the same staff person who works in that office today. Discussion with that responsible staff person and review of the record led to the conclusion that the lengthy time was primarily attributable to a release of toxic substances to groundwater by a previous permittee, and the subsequent successful Department effort to obtain a Court Consent Order for clean-up. That Consent Order was assumed (along with the permit renewal action) by a subsequent owner. Both the court action and the transfer of ownership were prolonged efforts, and the associated “Technical Review” period²⁰ for this renewal spanned 7 years, 4 months.

²⁰ See Chapter 5 of this report, “Standard Process.”

Another conclusion only possible through review of the actual Administrative Record (as opposed to the EnviroStor data record) was the lack of consistent process used for permit renewal. This is discussed further in Chapter 5, Standard Process. For example, even though the standard process defined by Permit Program management includes a “Call In Letter” to notify an applicant that a complete permit application is due in 18 months, such a call in letter was found in only one of the six permit records. Discussions with permit staff in the unit offices revealed there was no single department-wide file for standard letter formats, and staff did not have a standardized “call in” letter.

The discussions with unit staff during audit activities, and the examination of Administrative Record files, are cited as additional perspective in other sections of this report, and to supplement the finding provided in Chapter 9, Analysis of Program Metrics.

Recommendation 1-2: Develop a network file including templates and samples of best-quality permitting work products.

2) Background on the Permitting Program

The legal basis of the California Department of Toxic Substances Control, and its Permit Program, is found both in Federal and State law. The primary initiating action was passage of the federal Resource Conservation and Recovery Act (RCRA), enacted in 1976. RCRA is the principal federal law governing the disposal of solid waste and hazardous waste, and standards for the treatment, storage and disposal of hazardous waste in the United States. Interestingly, portions of California's hazardous waste law pre-dated and served as a model for some of RCRA.

The relevant provisions of the RCRA statute are found in Subtitle C, which directs the Environmental Protection Agency (EPA) to establish controls on the management of hazardous wastes from their point of generation through their transportation and treatment, storage and/or disposal. This comprehensive tracking and control is sometimes referred to as life-cycle control, "cradle to grave" regulation. The program imposes stringent recordkeeping and reporting requirements on generators, transporters, and operators of treatment, storage and disposal facilities handling hazardous waste.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as "Superfund," was enacted in 1980 to address the problem of remediating abandoned hazardous waste sites, by imposing retroactive and strict legal liability, as well as by establishing a trust fund (Superfund) to pay for cleanup activities at orphan sites. In general, CERCLA applies to contaminated sites, while RCRA's focus is on managing the ongoing generation and management of particular hazardous waste streams.

The federal RCRA program in California is administered by the DTSC. In 1982, the California Legislature declared that "it is in the best interest of the health and safety of the people of the State of California for the state to obtain and maintain authorization to administer a state hazardous waste program in lieu of the federal program . . . pursuant to the Resource Conservation Recovery Act of 1976." (RCRA, 42 U.S.C. 6926.)²¹

²¹ The Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), provides for authorization of State hazardous waste programs under Subtitle C. (42 U.S.C § 6926.) Congress designed RCRA so that the entire Subtitle C program would eventually be administered by the States in lieu of the federal government. Congress did this because States are closer to, and more familiar with, the regulated community and therefore are in a better position to administer the programs and respond to local needs effectively. (Overview of the RCRA Authorization Program, p. 1-1.)

The Legislature further declared that the Department of Toxic Substances Control (DTSC) shall have “those powers necessary to secure and maintain interim and final authorization of the state hazardous waste program” pursuant to RCRA and “to implement such program in lieu of the federal program.” (Health & Safety Code, §25101(d).) In adopting standards and regulations, DTSC is required to make standards and regulations conform with corresponding regulations adopted by the US EPA pursuant to RCRA and may adopt standards and regulations that are more stringent or more extensive than federal regulations. (Health & Safety Code, § 25159.5(a).)²²

In addition to the federal RCRA program, DTSC also administers the state regulatory program for so-called “Non-RCRA” hazardous wastes. The universe of these Non-RCRA hazardous wastes is large and diverse, and extends beyond the Federal RCRA requirements. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. RCRA regulated wastes have one or more of the following characteristics:

- 1) They are ignitable (at less than 60 degrees Celsius, spontaneously, or under certain conditions);
- 2) They are corrosive;
- 3) They are reactive substances (unstable as exhibited by such things as toxic fumes/gases);
- 4) They are toxic (harmful or fatal when adsorbed or ingested).

In addition to the “characteristic” waste streams, RCRA- also regulates in four categories of “listed” wastes, called the F-list, K-list, P-list, and U-list.

- F-list wastes are called non-specific source wastes and include wastes from many common manufacturing and industrial processes, such as solvents that have been used for cleaning or degreasing.
- K-list wastes are called source-specific wastes and include those from specific industries, such as petroleum refining or pesticide manufacturing, along with designated sludges and wastewaters from treatment and production processes.
- P-list and U-list wastes include discarded commercial chemical products such as industrial chemicals, pesticides, and pharmaceuticals.

California regulates a larger universe of wastes as hazardous. For example, California regulates products with the element mercury such as fluorescent lamps, mercury switches, and the products that house these switches, including mercury-containing novelties. Some “used oil,” products are not ignitable, but may contain materials on California’s M-list. Other materials regulated in California as toxics include soil generated from a “clean up” and similar materials. These are typically referred to as “Non-RCRA” or “California-only” hazardous wastes.

²² On July 23, 1992, California received final authorization from the United States Environmental Protection Agency to implement the RCRA hazardous waste management project, effective August 1, 1992.

After its initial establishment, the California permitting program was re-shaped by the Wright-Polanco-Lambert Hazardous Waste Treatment Permit Reform Act of 1992. That law established a five-tier permitting program to match the statutory and regulatory requirements imposed on each of five categories of hazardous waste facility based on the level of threat posed by them. The five tiers are as follows and the focus of this Report is on the facilities in the top two tiers:

1. Full Permit Tier
2. Standardized Permit Tier
3. Permit by Rule Tier
4. Conditional Authorization Tier
5. Conditional Exception Tier.

This system was explained in an interview with the Chief of the Division of Policy and Program Support, in the DTSC Hazardous Waste Management Office. He said that tiered processing was developed to match permitting requirements to the level of threat posed by activity, with DTSC directly handling the highest two levels (#1 and #2), and local entities providing oversight and control for the remaining three (#3-5). Tiered permitting also creates a comprehensive system of contact and control for hazardous waste generators, and works well in the context of a local, state, and federal waste control system. In California, this is strongly supported at the local level by Certified Unified Program Agencies (CUPAs). There are 83 local government agencies certified by the Secretary of Cal/EPA that maintain a “unified hazardous waste and hazardous materials management” regulatory program, including Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs. CUPAs include city and county land use and environmental health agencies, special planning and regulatory districts, and some special agencies.

These tiers are explained as follows:

- Level 5, or Conditional Exemption, is the lowest level of regulation. This provides for exemption of small-quantity treatment and other low-threat treatment at the facility in which it was generated (“on-site”). Examples would be simple separation of oil from water, container rinsing, and similar activities related to routine business operation. It is left to city and county land use and environmental health agencies (CUPAs) to ensure appropriate use of this exemption.
- Level 4 is next lowest level, and provides for Conditional Authorization. This covers onsite treatment authorization for specific low-hazard water-borne waste streams such as metal-bearing rinse waters, and some neutralization activity. It requires notification and authorization by the relevant local agency (CUPA), but no approval is needed.
- Level 3 is Permit by Rule, and allows some generators to operate according to an agreed-upon treatment plan, certified by a CUPA. It allows authorized on-site treatment of wastes such as concentrated metal-bearing wastes, concentrated acids or alkalis, and similar on-site treatment operations.
- Level 2 is the Standardized Permit Tier, and covers a hazardous waste generator or treatment facility covered under California requirements, or off-site transfer facilities for RCRA wastes including recyclers, oil transfer stations, and precious metal recyclers.
- Level 1 is the Full Permit Tier, and covers RCRA waste treatment, or landfill facilities.

Each entity that generates waste must obtain a unique EPA generator number, issued by DTSC. It must also use a structured manifest system to report each shipment that is generated, using this number for tracking purposes. The manifest must identify the shipment (including content and weight), the transporter, and the destination. Each transporter is similarly registered, as is the facility that receives the waste for treatment, storage or disposal (sometimes referred to “TSD Facilities” or “TSDFs”). Every record of a shipment is reported to the DTSC Generator Information Services Section, and whenever a certified treatment facility receives a shipment, it must report the same information in the same manner. In this way, there is a certified and “closed loop” handling of all hazardous wastes.

The DTSC permitting program pertains to Level 1 and 2 activities, and is intended to ensure safe treatment or disposal of all hazardous wastes.

Permitting Objectives

The objectives of RCRA are found in Section 1003, 42 United States Code 6902, and a partial list of those objectives is provided below (underlined emphasis is added):

- Promoting the protection of health and environment and conserving valuable material and energy resources (1003(a));
- Prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health (1003(a)(3));
- Assuring that hazardous waste management practices are conducted in a manner which protects human health and the environment (1003(a)(4));
- Requiring that hazardous waste be properly managed in the first instance thereby reducing the need for corrective action at a future date (1003(a)(5)).

RCRA also states that it is “national policy” to reduce or eliminate the generation of hazardous waste “as expeditiously as possible” and that waste which is generated should be treated, stored or disposed “so as to minimize the present and future threat to human health and the environment.” (RCRA Section 1003(b).) Thus, RCRA provides the broad objective of reducing hazardous waste generation but recognizes that hazardous waste which is generated must be managed properly to ensure acceptable and safe treatment, storage, and disposal practices.

As the underlined portions of the RCRA objectives above suggests the purpose of RCRA was not simply to eliminate the generation of hazardous wastes, but to establish life-cycle management so that hazardous waste generation is not allowed to threaten human health and the environment.

Indeed, the Congressional Findings provided in Section 1002 of RCRA, 42 USC 6901, note that the “the improvements in the standard of living enjoyed by our population, have required increased industrial production to meet our needs...” and that “continuing technological progress and improvement in methods of manufacture, packaging, and marketing of consumer products has resulted in an ever-mounting increase, and in a change in the characteristics, of the mass material discarded by the purchaser of such products.”

A review of California Law indicates that same paramount focus on the protection of public health and the environment. See Cal. Health & Safety Code Section 25101(a) (Legislative Declaration), Section 25135(a)(5) (Safe and responsible management of hazardous waste is critical). And, each permit issued or renewed by the DTSC “shall contain the terms and conditions the department determines necessary to protect human health and the environment.” Section 25200(d)(2).

In 1986, the California Legislature passed the “Tanner Act” named after Assemblywoman Sally Tanner that was designed to streamline the procedures for the siting and permitting of new hazardous waste TSD facilities by providing specific application and permit issuance deadlines and an appeal process. (Section 25199.-25199.14.) Section 25199(b) of the Tanner Act, for example, states:

“The Legislature, therefore, declares that there is a critical need to clarify the requirements that must be met, and the basic procedures that must be followed, in connection with the approval of hazardous waste facilities.”

Subsection (c) of that Code adds that: “It is the intent of the Legislature, in enacting this article, to establish the means to expedite the approval of needed hazardous waste facilities...” as well as adding new requirements, including but not limited to:

- To ensure that new hazardous waste facilities are not sited unless the facility operator provides financial assurance that the operator can respond adequately to damage claims arising out of the operation of the facility;
- To ensure that the facilities comply with applicable laws and regulations;
- To clarify the procedures to be followed in approving a facility;
- To establish specific means to give the concerned public a voice in decisions relating to the siting and issuance of permits for hazardous waste facilities; and
- To establish a process for appealing local decisions on applications for land use approval for hazardous waste facilities.

By way of summary, the relevant legal provisions support the following general conclusions as related to permitting. First, the protection of public health and the environment is the primary goal of federal and state hazardous waste law. Thus, the cradle-to-grave hazardous waste management program generally and the permitting of RCRA and California-only facilities must be conducted with this objective. Second, RCRA and state law support the reduction and minimization of hazardous waste generation over time, but recognize that there will be a need for treatment and disposal capacity. Third, existing law (Tanner Act) attempts to provide a means for the siting of new hazardous waste facilities with adequate financial assurance. However, as a result of local concerns and other concerns, almost no new capacity has been sited in California since 1986, leaving only the remaining permitted facilities to operate.

As a result of this complex legal framework, a DTSC Division Chief, has explained the position of DTSC in an interview conducted as a part of this review: “We have to maintain [adequate] treatment capacity to handle waste in California in order to protect health and safety.” It was stated that the Department has a responsibility “to make compliance easy and economic” such that existing permitted facilities can continue to operate. It was noted that where the cost of compliance gets too

high, or when facilities are not easily available, it creates a greater likelihood of illegal disposal of hazardous waste. Failure to have adequate treatment capacity may result in the unlawful and unsafe disposal of hazardous waste (sometimes referred to as “midnight dumping”) which would also have an adverse impact on human health and safety.

As is readily apparent, there is a tension between monitoring existing facilities to ensure the protection of public health and the environment and ensuring that these existing facilities continue to operate so as to provide adequate capacity to prevent illegal disposal of hazardous waste. But this does point to a lack of clarity in program purpose, especially where an existing needed facility may also present public health concerns.

Accordingly, this review and analysis posed several specific questions:

- What factors should go into a permit decision?
- Should more permits be denied?
- At what point should a permit be denied?
- Should there be a denial after three notices of deficiency?
- Are the time, cost, and complexity of the process reasonable?

Stakeholder interviews (presented in Chapter 6) indicate criticism of the Department’s balancing of this tension.

Specifically, a number of public interest representatives interviewed as part of this project expressed their concern that the Department was more concerned about maintaining treatment or disposal capacity than about public health and the environment. Their comments did recognize the need for “safe management of hazardous wastes in California,” but did not recognize an affirmative need for the Department to assist in the accomplishment of that end. In their view, permitting should be viewed as a conditional privilege conferred only on compliant individuals or entities, without regard to the need to consider the maintenance of capacity. In fact, most of the public interest representatives interviewed were opposed to the use of any Department discretion exercised to ensure adequate capacity, and seemed to favor only application of a strict permitting standard. Many of the strongest criticisms offered by that group were about the failure of the Department to consistently identify and use an objective standard, and to act with dispatch to revoke a permit when that standard is not met.

- **Finding:** This study agrees with the observation of the interviewed public interest representatives (see Chapter 6) that there is not sufficient clarity in many critical standards for effective Permit Program operations. For this reason, it is recommended that the Department formally articulate the mission and objectives of permitting program, as a beginning point in a strengthening of its operational standards.

Recommendation 2-1: Formally articulate the objectives and purposes of the Permitting Program based on law, and ensure that these objectives are disseminated and understood by the permitting staff and the broader public. The lack of a clearly stated objectives and purposes is creating an uncertainty in the actions of the Department, and a lack of clarity in public expectations about the Permitting Program. These objectives and purposes should specifically address three policy questions including: What constitutes a timely permitting action; Under what circumstances lengthy permit renewals are in compliance with law, and; When and how the enforcement and required clean-up actions of recorded violations are adequately considered in permit renewal? Once developed, the objectives and purposes should be reviewed and affirmed by Cal-EPA Secretariat, and the relevant Legislative Oversight Committees.

3) Background of Controversy

When this study was initiated, Department Director Debbie Raphael noted that there had been a great deal of expressed public dissatisfaction with the Permitting Program, generally and specific to several permit applications. Her comments posted to the Department web page on March 22 also described a need to “restore public confidence in DTSC”, and said that “permitting and enforcement were not as effective as they should have been.”

In response, the study team asked both the Director and our project team advisors for a list of the most controversial projects, why they were controversial, and whether any possible causes of the controversy had a direct and/or unique relationship to the subjects we were asked to study. The following is provided as documentation of the issues that were offered as those that have been most controversial, and the causes relevant to the study.

Specific Controversial Permitting Actions

Kettleman City. This is an existing major landfill site, located in the Central San Joaquin Valley, west side, near Coalinga. Pending actions include a Class 3 Permit Modification and renewal. The operator was recently cited for failure to report 72 spills, which the Department considers significant but since each spill was small and entirely contained, without any human health impact. The primary issues pending are in regard to when violations should be actionable, and what action should be taken. Most recently there was also a failure to notify one party or record regarding a proposed action.

Exide. This is a battery recycling facility located in Los Angeles area (City of Vernon). Exide is one of the last “interim” permits (a disposal site in existence prior to the 1982 law that established DTSC and grandfathered pre-existing operators.) It has been controversial both because the South Coast Air Quality district has recently found its air emissions to pose elevated cancer risk in the area, while the Department discovered that the facility was releasing hazardous waste into the soil due to a degraded pipeline. The Department believed Exide was not fully cooperative or responsive.

Phibro-Tech. A treatment facility located in Santa Fe Springs that has requested a new, expanded permit. Advocates say it is being allowed to “function on expired permits,” and has done so for 15 years. They believe it is an example of poor enforcement. Advocates argue that it needs to clean up pollution at the site, which has contaminated groundwater.

Chevron Oil. Located in SF Bay Area, at Richmond. Permitted, but advocates believe it is an example of poor enforcement, and should have been sanctioned or fined after a refinery fire in 2012. While DTSC did not levy a fine, the California Division of Occupational Safety & Health (Cal/OSHA) did issue 25 citations against Chevron USA on Jan. 30, with proposed penalties totaling nearly \$1 million, for state safety standard violations related to the August 6, 2012 fire at the refinery.

Evergreen. Oil recycling facility in LA Area (City of Carson). It is one of the “big” transfer and treatment concerns. Advocates believe it is an example of poor enforcement, that its permit should be suspended, and that no action has been taken despite “serial leaks over two decades.”

These “most controversial” actions were discussed with the project advisors to ensure adequate review of issues within the scope of this review. It was determined that the primary concerns in these matters are similar to what was identified in the previous chapter, with the addition of questions related to:

1. If permit renewal actions are timely;
2. If lengthy permit renewals are in compliance with law;
3. If enforcement and required clean-up actions are adequately considered in permit renewal?²³

It is noted that the issue regarding the levy of fines is entirely within the realm of enforcement, and outside the scope of this study. This study did include a review of the public participation process, as it is required by law and clearly a part of the permit renewal process.

A further discussion of specific permitting related actions reviewed as a part of this study are provided in the section on Stakeholder feedback, Chapter 6.

²³ Included in Recommendation 2-1, for formulation of a Department response.

4) Organization Structure, Operations and Management

Currently, Permitting is an “Office” within the Hazardous Waste Management Program, with a total of 29 authorized positions in the current fiscal year (FY2013). Of the currently authorized positions, 25 are professional, and largely in Hazardous Substances Engineering classifications, with a few in supervisory-technical classifications. The professional background of most of the Permitting Office professional positions is engineering, chemical science, and geology. The following table shows the staffing level by job classification in the office as determined by the Governor’s Wages and Salary Supplement.

Table 1: DTSC – Permitting Division Staffing Levels

CLASSIFICATION	2006-2007*	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013**
Division Chief - Toxic Substances CEA	0.8						
Senior Engineering Geologist	8.8	2.8		0.5	1.0	1.0	1.0
Supervising Hazardous Substances Engineer II	3.0	3.0		0.3	1.0	1.0	1.0
Supervising Hazardous Substances Scientist II	1.0	1.0					
Supervising Hazardous Substances Scientist I	4.0	4.0					
Supervising Engineering Geologist	1.0						
Senior Hazardous Substances Engineer	4.8	4.8	2.6	2.0	2.0	2.5	3.0
Supervising Hazardous Substances Engineer I	6.4	5.0	0.8	--	1.4	1.6	2.0
Senior Hazardous Substances Scientist		1.0	1.0	1.0	1.0	1.0	1.0
Engineering Geologist	11.8	3.0	1.0	--			
Hazardous Substances Engineer	27.5	26.3	13.5	12.3	10.3	13	14
Associate Government Program Analyst	1.0	1.0	2.0	2.0	1.6	1.5	2.0
Hazardous Substances Scientist	19.4	15.3	3.0	3.0	2.7	2.5	3.0
Staff Services Analyst – General	2.6	1.6					
Office Technician – Typing	4.5	4.0	0.7	1.0	1.0	2.0	2.0
TOTAL:	95.8	72.8	24.6	22.1	22.0	26.1	29.0

*Permitting and Corrective Action Division

**Authorized Numbers – Actual Personnel Years used not available at the time of study

The 2012-2013 column shows authorized positions for that year, while the columns for fiscal years 2007 through 2012 show the number of authorized positions actually filled. In other words, the columns showing staffing from FY 2007 through FY 2012 subtracts vacant and unfilled positions, even if “authorized” (or included in the budget).

The obvious reduction of staffing from FY 2007 through FY 2009 (from 95.8 to 24.6 positions) is significant, and reflects budget reductions associated with the economic recession and associated state budget reduction in that year. The staffing reductions made in FY2009 have not been reversed, and the Permitting Staff continues to operate with a very low staffing level compared to its recent past. That reduction in overall staffing is a major issue for review, since one of its purposes is to evaluate whether there is a sufficient workforce to complete the work required.

The issue of adequate staffing, timely action, and efficient process have been raised with regard to Permitting since 1997 at least, and a number changes in office name, organizational placement, and management structure have been attempted over the years to respond to these concerns. Ironically, there has been no change in staffing numbers except the roughly 66% reduction in FY09. This section, based on the comments of current and former Department staff, describes the various changes and the perceived impact of those changes on the work.

Changes from 2007-2010

The scope for this contract work called for consultants to document the changes in the permit process over the past five years based primarily on the record obtained from “2007 and 2009 internal reviews”, and to obtain perspectives of designated subject matter experts. A list of the designated representatives and subject matter experts is provided as Appendix A, and interviews with each one was conducted, along with a meeting and video conference with all permitting staff statewide (on March 7). However, it was later determined that the record of the “Permitting Team” commissioned in 2007 by the then-DTSC Director, which met consistently until July 1, 2009, was the only internal review that was ever conducted. The relevant record of that team was found in one primary document, the “Permit Renewal Team Closure Report,” dated 8/18/2009 (and hereafter called the Closure Report). It is included in Appendix E. Additional interviews conducted throughout this study, including one with the former Director, provided additional information and confirmation of the organizational changes noted below, and while no single source is cited for the following, it presents the consensus views of all these noted sources.

In 2007, the then DTSC Director (who served from Jan. 2006 – March 2009) faced a significant issue in that out of 137 permitted facilities, 76 of these permits had expired and those facilities were continuing to operate as allowed by law on expired permits. The Administration viewed this as a significant problem, with just 45% of all operating facilities holding “current” permits. Her assessment was that the organizational structure was largely at fault, since most program work was done in Regional Field Offices that handled permitting along with a broad range of other Departmental program activities. She argued that permitting actions were not timely because staff needed multiple approvals from various sources in Headquarters program offices in order to proceed with permitting renewal. As she put it in an interview associated with this review: “No single person was in charge of the permitting program” and “responsibility was (split) across multiple people.” She said that required decisions “bounced across different work teams.” She also noted that the

permitting culture was such that, “many employees ...would just ask more questions rather than make decisions²⁴.”

As a result, part of her response was to eliminate the Regional Field Permitting Offices, eliminating a large number of management positions, and reassigning staff within those offices to combined functional and operational structures within program configurations that had leadership almost entirely in Sacramento.

Within the permitting office all the existing positions were reorganized into two teams, including the Permit Renewal Team and the Operating Facilities Team²⁵.

The Permit Renewal Team was made up of 15 employees and listed its purpose as “improving the quality and reducing the time required to make final permit determinations; to dedicate resources to issuing permit determinations that are technically sound, legally enforceable, protective of human health and the environment, CEQA compliant and issued in a timely manner.”²⁶

The Operating Facilities Team (OFT) was made up of just 13 employees and had a mission of processing all other permitting actions for “current” permit renewals, including operating and post-closure permits, completing clean closures, and handling permit “maintenance” and modifications. This allowed the Permit Renewal Team to focus on its goals of reducing the number of facilities operating without a permit without distraction of these other permitting actions.

It was later noted that the Permit Renewal Team was assigned 11 “project managers” and 15 total employees to process 47 renewal activities, while the Operating Facilities Team was assigned 7 project managers and just 13 total employees to respond to the needs of 130 facilities. This was described as an example of “inequities in the allocation of resources.”

Those interviewed as a part of this project described the DTSC organizational changes in terms of upset and confusion, with one person indicating the director “blew up the boxes”, and another stating that the reorganization was “controversial.” Those interviewed explained that the Director’s interest was largely in the Permit Renewal Team, which was established to resolve the critical problem of outstanding permit renewals.

Those interviewed related the impression that the employees perceived as most highly effective were placed on the Permit Renewal Team, while those not selected were assigned to the OFT by default. In addition, because the Permit Renewal Team was charged with rapid results, they were allowed to select the most easily approvable permits of the 67 that were then pending action. Finally, representatives of a number of other program offices were assigned as adjunct staff to the Permit Renewal Team, to emphasize the need for action.

²⁴ Interview conducted with the then DTSC Director, May 15, 2013

²⁵ This information was provided by current Permitting Office Chief, and from the historical record.

²⁶ Closure Report, attached in Appendix E

The current Permits Office Chief recalled that the projects selected for this rapid review action were the least controversial, with the most cooperative operators, and the least complex issues. As a result, he believes there is limited learning possible from this experience as these “easier” facilities present fewer permitting challenges. However, he feels that one valid lesson is that the assignment of technical specialists to the review team assisted in timely action. He noted that especially in the area of obtaining CEQA review, having a person trained in writing environment documentation was critical. Such an activity comprised additional staffing time for Permitting.

The Permit Renewal Team was “closed” on July 1, 2009²⁷ and reported that it had issued 38 of the 47 permit decisions it had committed to complete upon its formation, 29 months earlier. Another Department report indicated that in December of 2009 there were 89 facilities operating with permits and just 42 without – a 68% “current” rate. It reported that the time to complete a permit declined to 1.7 years (20.4 months) in 2008 and 1.9 years (22.8 months) in 2009.

The current Supervising Environmental Planner in the CEQA Unit of the DTSC Office of Legal Affairs, was the legal counsel assigned to the Permit Renewal team in 2007. She was part of a review team of 9 other employees from other Divisions that were asked to provide direct support to permitting. In an interview conducted on Aug. 1 she observed that the apparent success of the team was primarily the result of defined limits in its work assignments and its generous staffing. She also noted that the team was given a favored status, including new laptops, and permission to travel and to attend conferences.

Some of the assessments given for the Permit Renewal team success have argued that Permit Staff was given authority to “make decisions” regarding other programs’ sign off on permit decisions. However, the current Supervising Environmental Planner says that with regard to CEQA approvals, “the process we had internally (then) is the same that we have now,” and that there was no change in the processing rules during the Process Renewal Team. In further discussion with consultants she agreed that the inclusion of a CEQA specialist on the team was probably successful because key issues were discussed amicably early in the permit processing, rather than languishing unsolved until later stages of review. This observation is addressed in the recommendations below.

Permit Team’s Conclusions Regarding Success

The Department issued the June 2009 report (‘Closure Report’) to summarize its lessons learned. While a number of conclusions were offered for the perceived Permit Renewal Team success, the one that stands out most clearly is that the use of “dedicated resources” and team members who were allowed to “align their workload” resulted in meeting project goals: In other words, a **realistic workload assigned to available staff**. Clearly this practice has not been maintained or replicated in the current timeframe, as the staff assigned to Permitting and its two teams dropped to historically low levels in 2009 and afterwards (see Table 1), as the overall state budget crisis worsened. This

²⁷ Based on Department report, “Permit Renewal Team Closure Meeting,” dated July 1-2, 2009

misallocation has not been altered even today, and is likely to significantly impact the future success of this unit.

The study also echoed the original theory offered by the then Director, that making permitting staff accountable for results, and that **reducing the number and levels of approvals necessary**, particularly through elimination of the Regional Office structure, was very helpful. While no empirical evidence is available, this study concurs that it was likely a significant factor, because the process of obtaining approvals across organizational boundaries is often problematic, since the time imperative binding the requesting unit is not necessarily binding on the approving unit. At the same time, the desire to obtain full technical compliance that is highly motivating to the approving unit is often not fully embraced by the initiating unit. However, this study does not agree that the abandonment of supervisory structure was helpful, as we will discuss in the next section.

This study agrees with another practice cited in the final report, that each project manager **develop and post a project plan for each renewal** based on the unique need and circumstances of their assigned renewal action. This practice is consistent with good project management, and it must be noted that it has been largely abandoned (except perhaps in the Chatsworth permitting staff unit) in the intervening years.

The **use of model permits and consistent permit structure** (or process), was also endorsed in the closure report, and it was noted that these models should be supported by “reference checklists”. This study agrees that this was also likely a significant factor in the earlier team success, and is another practice that has been abandoned since team closure, as noted in the following chapter.

The use of teams for permitting actions is also endorsed by the closure report, and this is a recommendation with which the present study disagrees. This is the case because the only attribute of having “teams” that directly relates to permit processing is that of completing “tasks at hand” based on specialized knowledge, and of obtaining required approvals in a “flatter” organization. The issue of “teams” implies that always having a large work group assigned to every permit renewal is an aid, while it seems apparent that teams would only be necessary on larger or more complex renewals. The use of teams also implies that having associated program review staff on the team, for example to include member from CEQA or Human Health Risk Assessment units, would always make the work quicker. However, as noted in the earlier interview with the current Supervising Environmental Planner in the CEQA unit, there was no program change in that period of time (2007-2009), and “the process we had internally (then) is the same that we have now.” This means that the positive result achieved was not the result of the permitting project manager commanding the associated program experts to produce positive results, but rather, of shared goals and good communication early in the process.

As a result, the actual best practice is an extension of the earlier recommendation to develop and post a project plan for each renewal – but with a focus on development of a project team and project management techniques appropriate to the action at hand. This would normally be done through **development of a project charter** associated with each renewal action. Such a project plan would require the project manager to anticipate the project team members that would be required for the

proposed action, and to negotiate their participation, and a communications plan to achieve mutual goals. The use of these basic project management practices will encourage task, timeline and resource planning that should smooth the workflow.

Relevant Structural Issues

Between December 2009 and the present (August, 2013), the Permitting Program Office has not maintained uniform management, supervisory structure or a clear and consistent organizational structure. This is documented both through the statements of individuals interviewed, by HR Division records, and by a review of basic organizational documents such as duty statements and organizational charts.

Permitting staff interviewed as part of this project indicated that after the two teams were disbanded in 2009, that three new teams were established according to the type of permitting action, including Landfills; RCRA Storage and Treatment; and Oils and Standardized Permitting. The Landfills Team reviewed all permitting work of that type, and its actions were reviewed by a Senior Engineering Geologist. The RCRA Storage and Treatment Team was headed by a Senior Hazardous Substances Engineer (HSE). The Oils and Standardized Permitting Team was headed by a Senior Hazardous Substances Engineer (HSE). However, while the work was reviewed by these three specialists, there was no system of direct supervision of each employee in the Permitting Office until April of this year. In other words, there was a four-year period in which work outputs were reviewed, but direct supervision of personnel lapsed.

Management of the Permitting Program had also lapsed. In 2009, the Chief of Permitting was also assigned as Acting Deputy Director of the Department. Permitting personnel expressed that because of her other duties, this caused a vacuum of leadership at a time during which Permitting was already being challenged. Not only was there a lapse in Supervision, as noted, but the available staffing was reduced by almost 70% between FY09 and FY10. A new Permitting Chief was appointed to serve on March 2, 2012, but retired on Dec. 25 of that same year. Then another lapse in management occurred until the current Chief was appointed in February, 2013.

The concern with these significant lapses in management and direct supervision of all personnel is that attendance, performance, coaching, and training of employees did not come under consistent and regular review by a designated staff person, and a consistent system of responsibility and accountability lapsed. The lapses in use of a standard permit process (detailed in Chapter 5) likely occurred or became worse during that period. One documented observation was that “the work product and quality of work severely declined” during this period, and “accountability was lost.”²⁸

Incrementally since that time the Department has restored a one-to-one relationship between each permitting employee and a supervisor, and appointed a Supervising HSE I on 2/14/11, to supervise

²⁸ Assessment of Denzil Verardo, who served as a Special Assistant to the DTSC Director for performance management implementation, special projects and investigations, from 2006-2011.

the permitting employees stationed in Berkeley, and another on 5/9/2012 to supervise the permitting employees stationed in Sacramento. A third HSE I was selected on July 18, 2013 to supervise the employees stationed in Chatsworth.

Based on comments of employees, and direct observations of consultants during field visits, it has been concluded that the use of telecommuting in many offices is extensive and unplanned by management, and that this is a contributory factor to less-than-optimal program efficiency and effectiveness.

Analysis of this history leads to a conclusion that appropriate management, work unit cohesiveness, and effective work organization has suffered for an extended period of time, and that focused efforts are needed to restore best practices in permitting.

Recommendation 4-1: DTSC should establish a clear and predictable organizational structure for permitting that is focused on in-person meetings, in-office work, and updated training. Telecommuting should be severely limited or revoked for at least a six-month period while these necessary improvements take place and the objectives and purposes in Recommendation 2-1 are implemented. All permit staff duty statements should be brought up-to-date along with goals and performance appraisals during this period. Necessary updates to standard templates, work aids, and work processes should be achieved. Work units should use this time to build solid relationships with their supervisors. Maintaining traditional in-office work groups, with a supervisor at each location, will improve communication and assist with re-establishment of efficient processes and work production.

5) Standard Process

The documentation of a standardized process for permitting was a primary purpose of this study, and it was asked there are “grey areas” in the current process. The study was asked to develop a recommended process with clear decision criteria and corresponding standards of performance. It was asked to answer the question, “What factors must go into making a permit determination?”

Attempts to Define the Standard Process

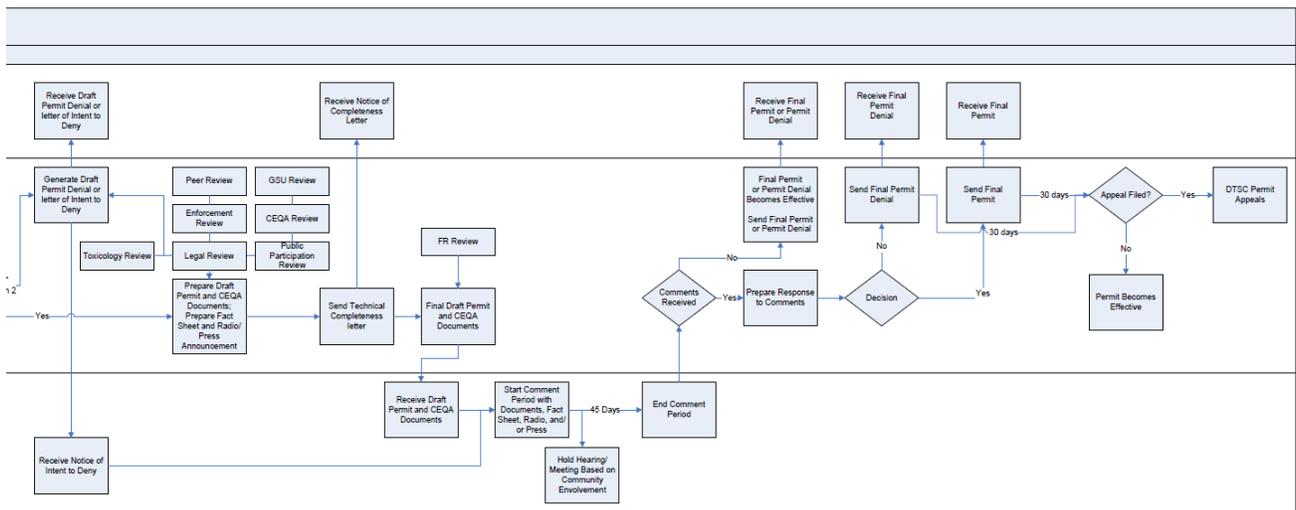
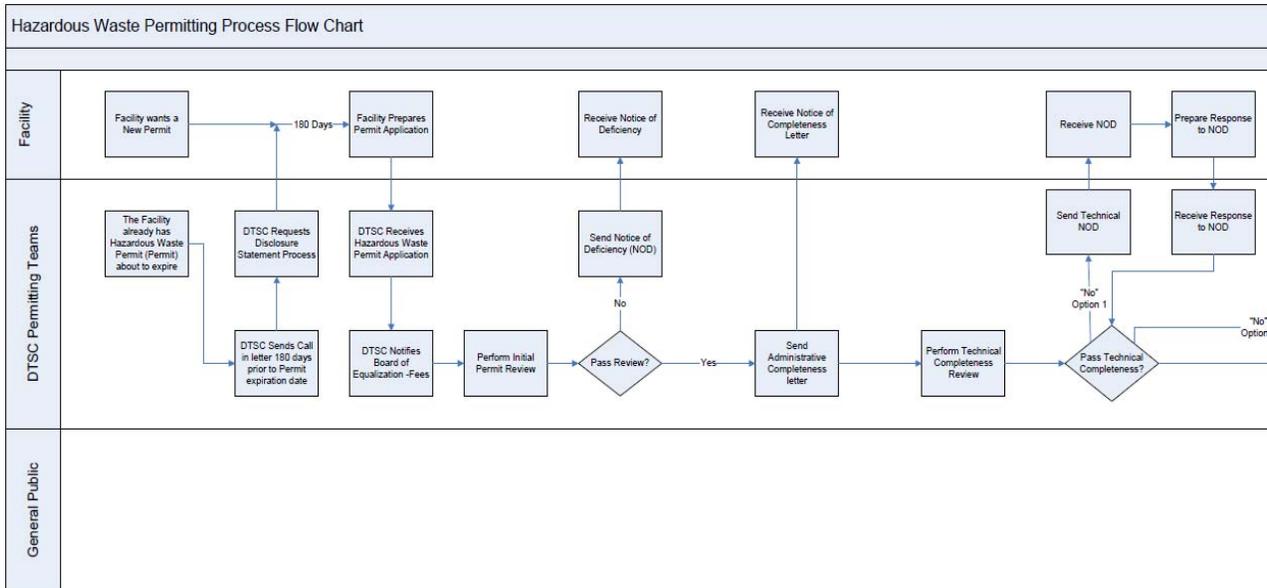
When this study was initiated, Office of Permitting project sponsors were asked if a standard process flowchart existed. The chart represented in Figure 1 on the following page was provided. A complete copy of this flowchart was printed, and major segments were illustrated in a PowerPoint presentation at a meeting and video conference with all permitting staff on March 7.

Permitting staff first expressed surprise regarding the process flowchart, and asked where it had come from? When told that it was provided by Permitting Program management, and that it was saved on the Office’ SharePoint site, participants said that the workflow is not realistic and does not capture how things are really done. For example, they noted that the draft permit is always reviewed by legal prior to technical completeness letter being sent.

Other significant process-related comments made by the employee group was that the Permit Processing Handbook was last updated in 2001 and is not useful for staff to learn how to process a permit, and that there are no guides or instructions available regarding the Technical Review of a Part B application. Permit staff also said there is a ‘grey area’ to consider in permitting actions due to enforcement actions²⁹.

²⁹ This was a comment made at the all permitting staff meeting held on March 7. No further detail on the meaning of the comment was provided, but it was believed to mean that there is uncertainty regarding further permit processing in instances where the facility has outstanding violations.

Figure 1: Existing Standard Permitting Process Flow Chart



Following the all-employee meeting on March 7, a revised process flow document was created, and an April 9 meeting was scheduled with the Permitting Chief, and all supervisors and “team leads,” so that a revised standard process flowchart could be created. This initial review group included the current DTSC Permitting Chief, the Supervising HSE I’s from the Berkeley and Sacramento Offices, the Senior HSE’s who headed the RCRA Storage and Treatment Team and Oils and Standardized Permitting Team, and a Senior Engineering Geologist. Surprisingly, there was significant disagreement among this group about key process steps. For example, there was debate about when the “call in” letter was supposed to be sent to each permittee, initiating the permit renewal cycle. It was finally agreed that it should go out “18 months prior to existing permit expiration”, rather than the 6 months shown on the previously existing process flow chart. In addition, it was observed that when the Department finds the initial Part A and Part B application to be incomplete, it sends an Administrative Incomplete letter and not a “Notice of Deficiency.” It was agreed that a Notice of Deficiency (NOD) is only sent during review of the Part B application and operating plan³⁰, and that it is reserved for use during the more contentious Technical Review period.

A revised proposed standard process flow document was created and resubmitted for approval four more times, and produced proposed standard process documents on April 17, May 22, June 12 and July 12. No agreement on standard steps was ever reached even though it was decided to narrow the review group to just the current DTSC Permitting Chief and the Senior Engineering Geologist³¹.

Specific areas on which agreement could not be reached include:

- When and how the CEQA process starts
- When and how the Disclosure process start
- When and how the Public Participation staff gets involved in the renewal process
- Any standard process steps for review of the Part B Application and the associated Technical Review

Because of this failure to agree, this study reviewed what was actually done during the random audits of permit renewal actions. Additional interviews were also scheduled with the Legal Office, the CEQA Unit, Federal EPA, Public Participation supervisors, and with Financial Assurance staff to review perceived roles, and best practices for DTSC Permitting.

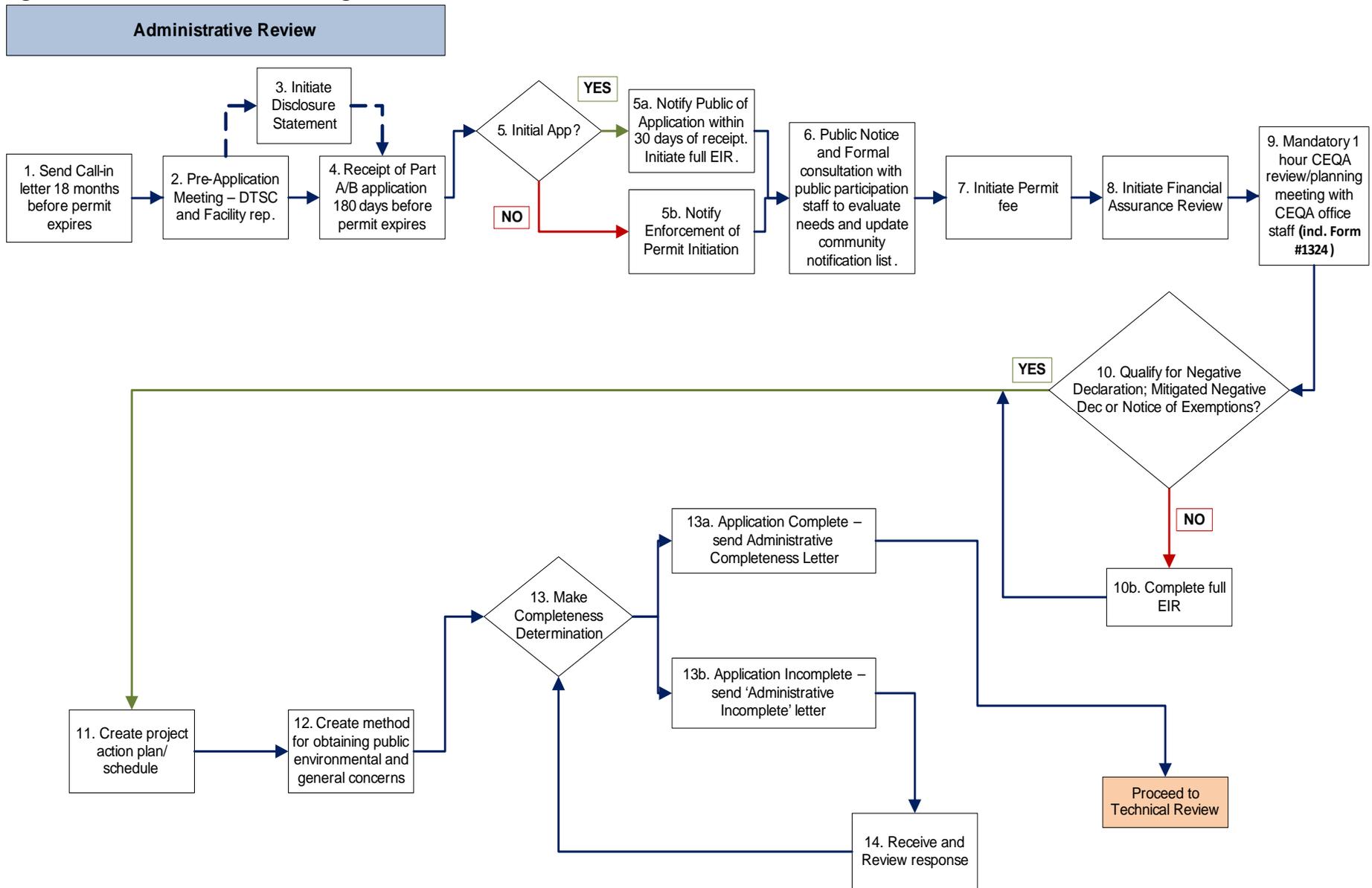
Recommended Standard Permit Process

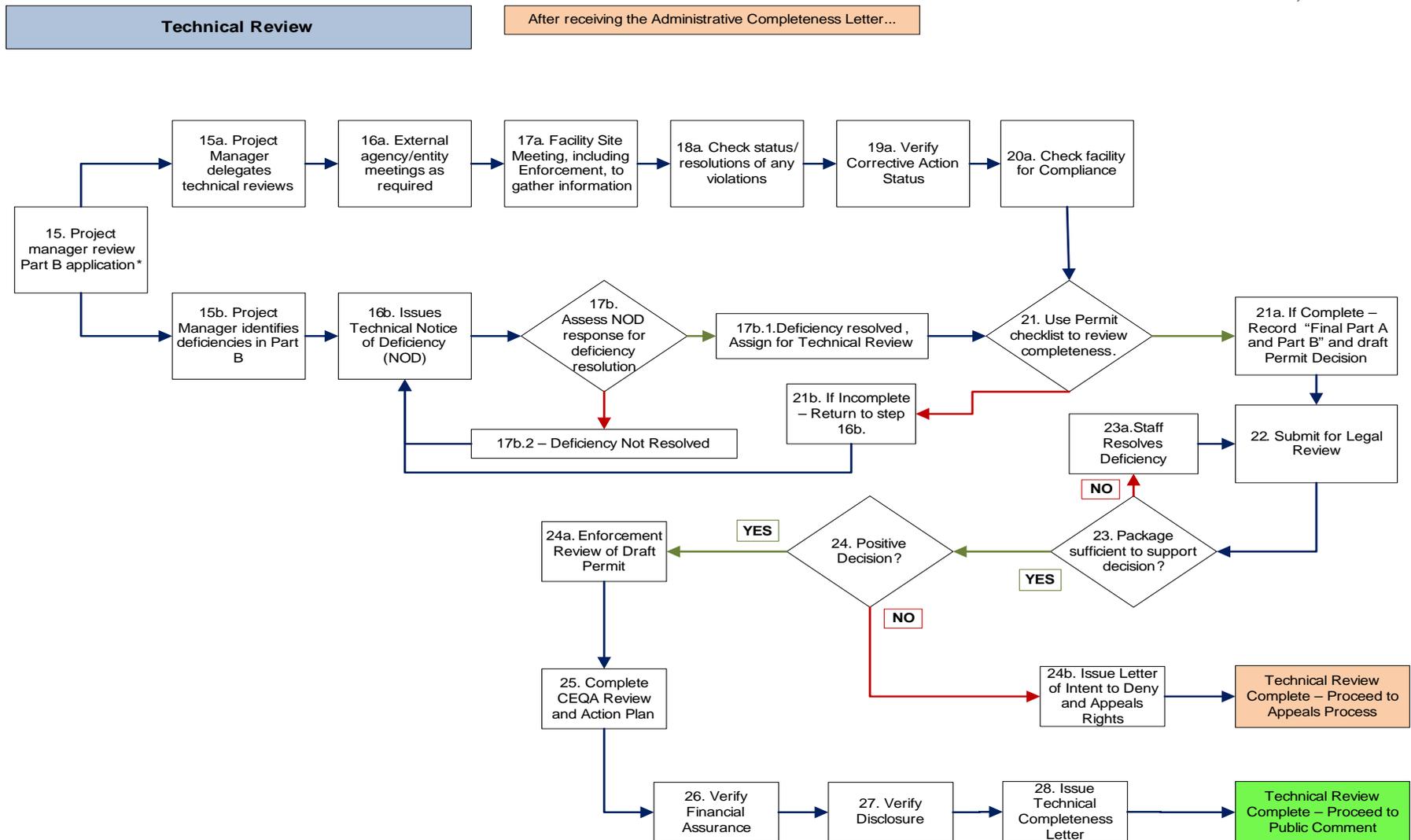
The following pages depict the recommended process flow chart, based on information obtained from all sources. The specific recommendations associated with its adoption follows. A task list aligned with the process flowchart is provided in Appendix F.

³⁰ Despite this agreement reached among permit staff on appropriate terminology, the Health and Safety Code makes reference to issuance of a notice of deficiency during administrative review, indicating that the law may not be consistent and clear.

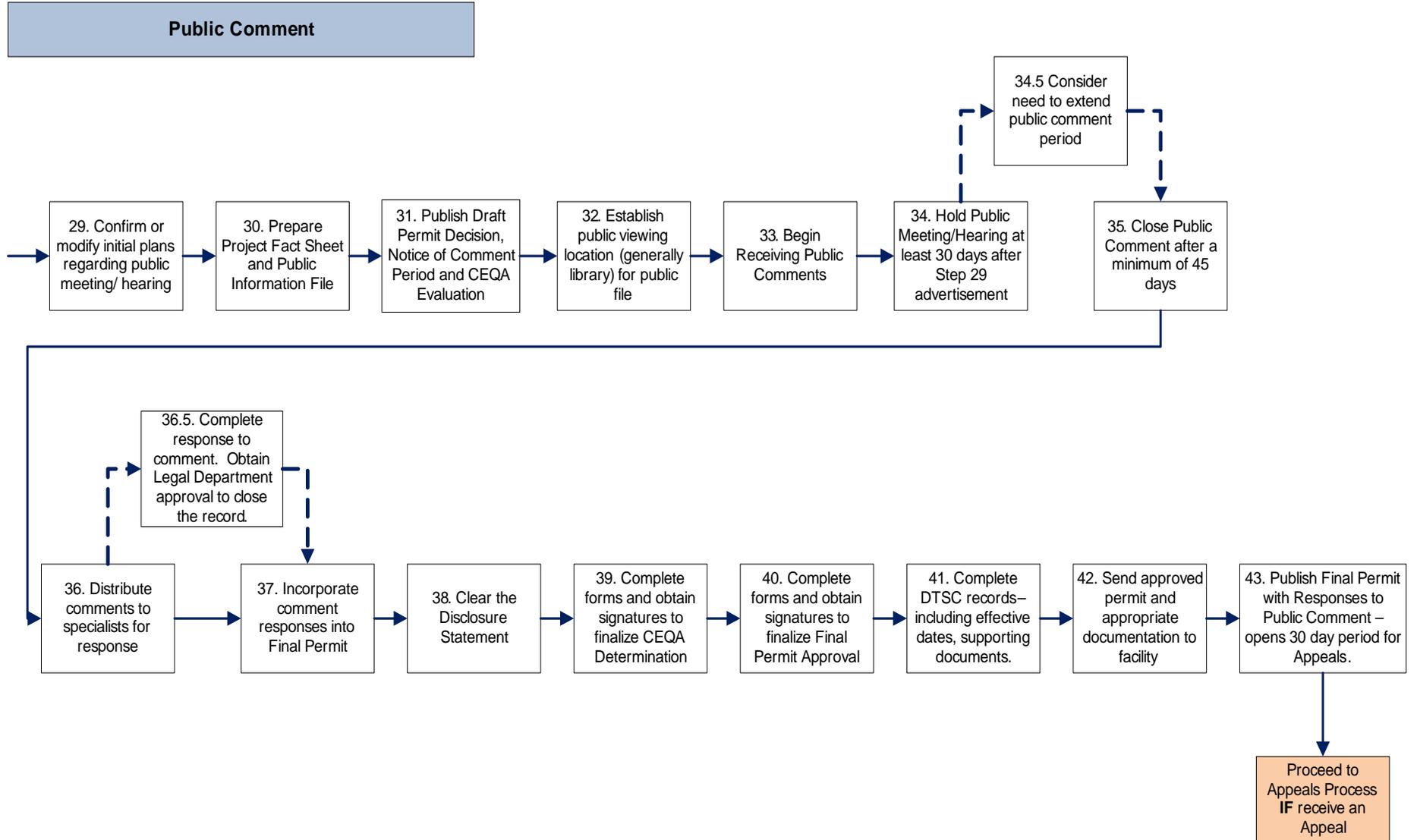
³¹ These reviewers were seeking approval of a broader group in acceptance of “standard” process steps.

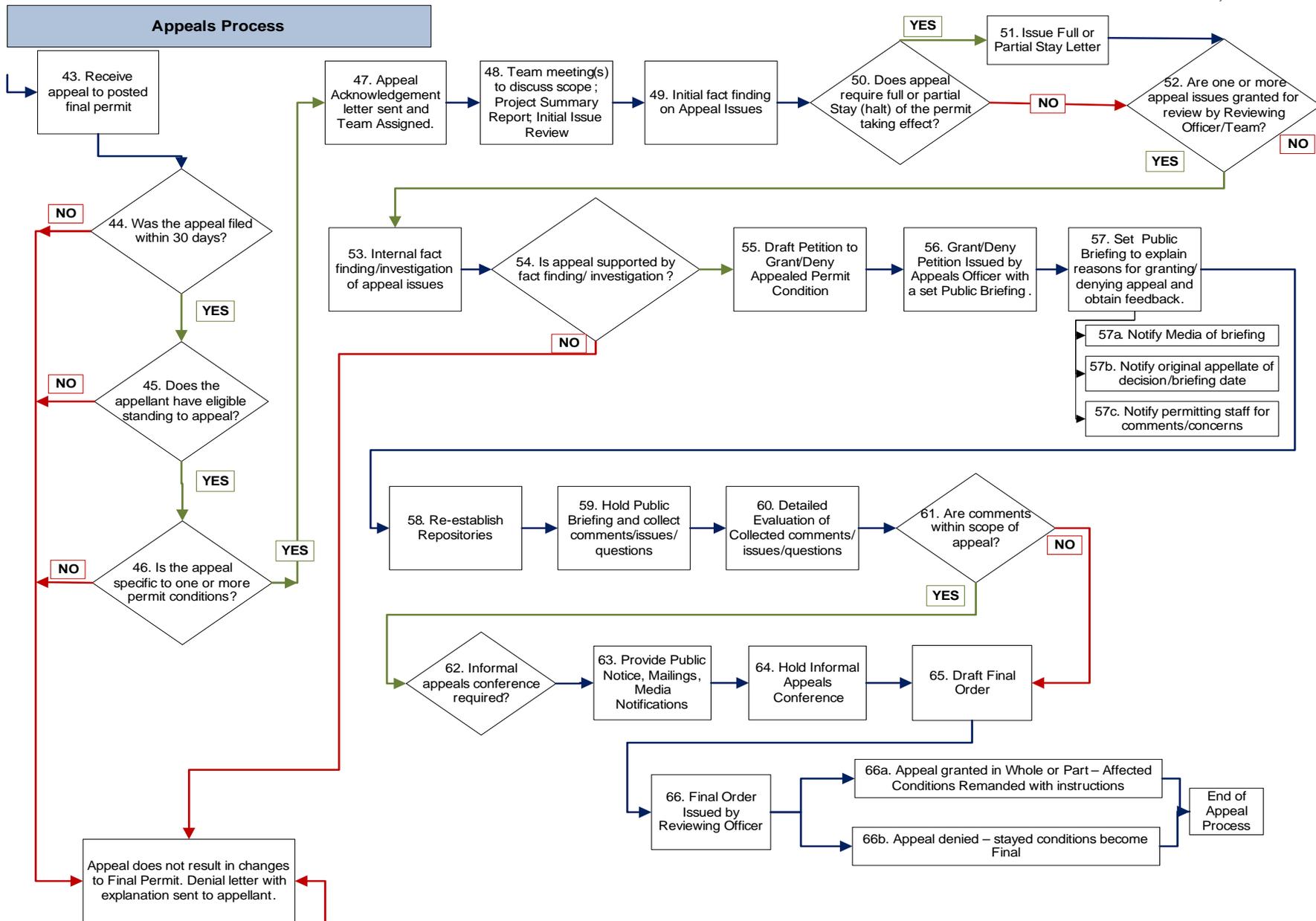
Figure 2: Recommended Permitting Process Flow Chart





* See Flow Chart for Part B Application for more detail





The earlier noted failure of Permitting staff to agree on the applicability and accuracy of the existing process flowchart, followed by the failure of supervisors and team leads to be able to define a clear permit process after five attempts is evidence that there is no agreement on the standard permitting process at the present time. The result is that there is no standard best practice is being followed, no standard for training, and no standard for tracking. It is therefore recommended that this be corrected.

Recommendation 5-1: Adopt the revised process flow for permitting proposed in this report, or a similar standard process flow. Require notes on the criteria for each decision and the sign-off standards for each process (or project) step. Specify a clear logic for any alterations in dates or tasks. Such a process must respond to the grey areas identified earlier as follows:

- **A defined and coordinate initial process review by DTSC CEQA staff and DTSC Community Involvement staff;**
- **Initial and regular/as needed consultation between enforcement and permitting;**
- **A mandatory permit renewal meeting with the appropriate DTSC technical team and the permit applicant;**
- **A site visit between the appropriate DTSC technical team and the permit applicant early in the Technical Review.**

The additional steps recommended above were based on additional interviews and research that is summarized here.

The defined initial process review by the DTSC CEQA Unit is based on an Aug. 1 interview with the Supervising Environmental Planner in the CEQA Unit and former Unit Director. Both noted that this step is now bypassed in most cases, and that the CEQA staff is typically involved only in the final permit approval action, when the Unit is asked to approve any “Notice of Determination” of negative impact. The current Supervising Environmental Planner in the CEQA Unit said this practice is “unfair” and leads to unnecessary delay and additional work in many instances. It can also lead to Departmental rework where there was poor initial decision-making. Since appropriate CEQA decision making is based on the appropriate completion of a CEQA Initial Study Checklist (DTSC Form #1324), it will require at least an initial consultation between the Permit project manager and the CEQA to ensure appropriate information is provided.

The recommendation for a defined initial process review by DTSC Community Involvement staff is based on information obtained at an Aug 13 interview with the Public Participation and Community Relations Branch Manager and her three unit supervisors. This group stated that like the CEQA staff, the Permit Renewal Project manager rarely brings them into projects “within an appropriate time to meet community outreach needs” and they are never included in initial scoping meetings to determine a community outreach strategy, or to update a community contact list or determine outreach needs. As stated before regarding CEQA liaison, this practice can be expected to contribute to unnecessary delay, error, or rework where there was poor initial decision-making.

The recommendations regarding an initial meeting between enforcement and permitting has already been recognized as a need within DTSC, and is in the process of being implemented.

The recommendation for an initial permit renewal meeting with the appropriate DTSC technical team and the permit applicant was observed to occur in several of the permit renewal actions reviewed in the field, and that such a meeting replaced a number of process steps that were otherwise done incrementally, and sometimes apparently missed. Since this change reflects the combination of necessary tasks it is believed to be a best practice and a process simplification that will also promote uniform practice.

The recommendation for a site visit between the appropriate DTSC technical team and the permit applicant early in the Technical Review process is generally acknowledged as a best practice within the Permit Office. In addition, a site visit at the time of the initial permit renewal meeting would be advised in complex renewals, where significant changes in the operation or the community had occurred in recent years, or where the project manager had never been to the site before.

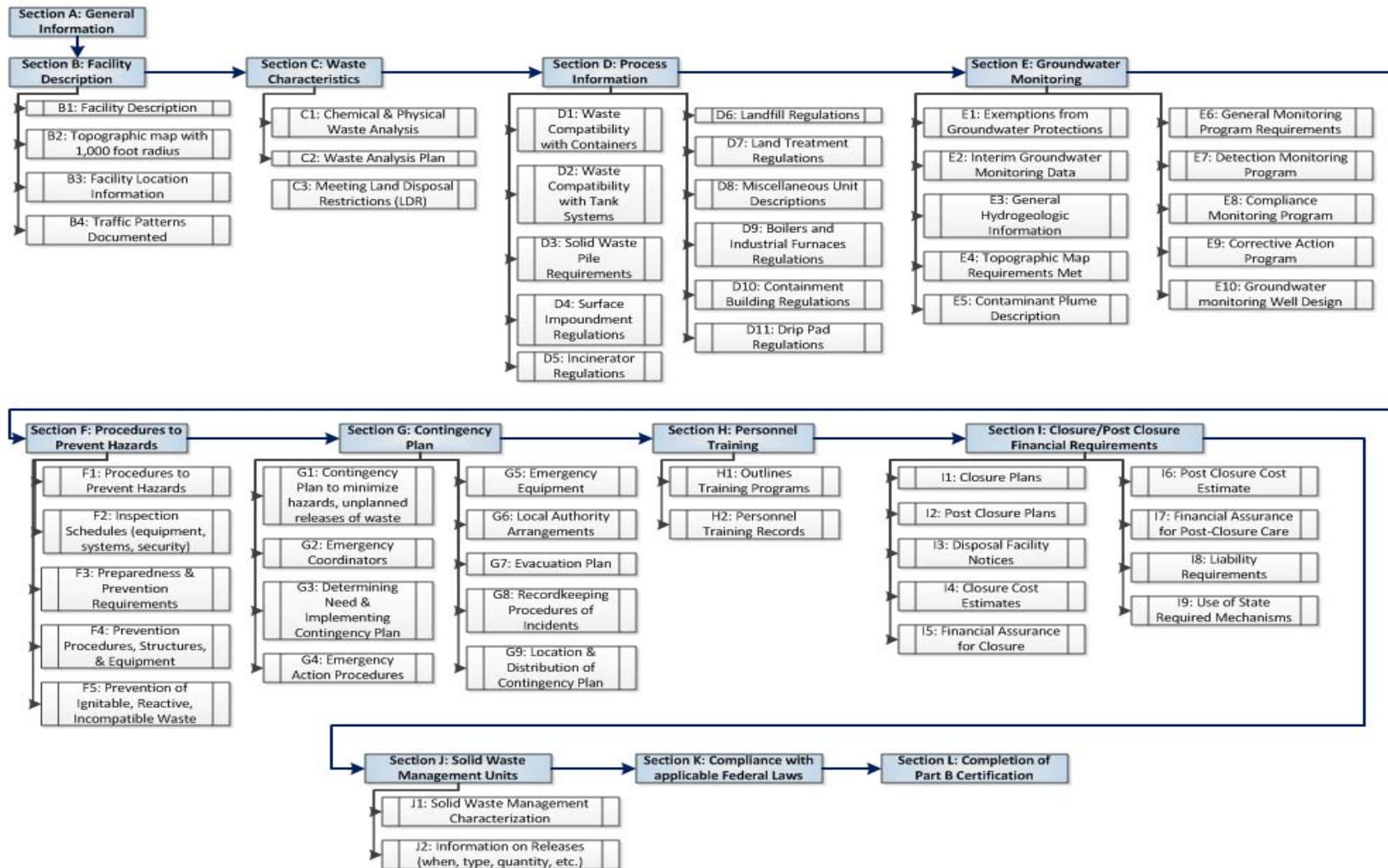
Part B – Technical Review Process

The preceding flowchart shows only a “high level” process relative to the processing of the Part B Application – that portion of renewal referred to as Technical Review. Permit Office leads and supervisors were unable to provide any formal, step-by-step guide, checklist, or other work aid to assist in Technical Review. The basic EPA issues “Permit Completeness Checklist – Part B” was continually cited as the primary source. However, that document is approximately 150 pages long, and its decision flow is very difficult to follow. Indeed, this source document is well known to DTSC permitting staff that had initially cited difficulty in performing the reviews.

A review of past training materials uncovered a document: “SESSION 11, RCRA Permit Training, Reviewing the Permit Application,” published by US EPA, that provided a very extensive step-by-step guide to the Technical Review, and that should be much more widely known and used within DTSC.

The entire “Permit Completeness Checklist – Part B” was flowcharted as part of this study, to aid in understanding the steps and actions, so that permit writers can clearly follow them. An abbreviated version of this flow chart is presented in Figure 3 on the next page, with the full flow chart in Appendix G.

Figure 3: Abbreviated Part B Application Review Flow Chart



Recommendation 5-2: The Permitting Office should develop instructional and guidance materials to support the Technical Review process flow. This should include clear and written decision-making criteria associated with each Section, and processing check sheets to match the process steps on the Part B flowchart. The U.S. EPA materials should be used as a reference.

In an additional project interview, the Manager of RCRA Facilities Management Office for the Federal EPA, said that: “CA DTSC has been somewhat of a loner in the past, and has ignored help available through the Region. For example there is a strong network of RCRA permit writers in other states that holds regular information sharing teleconferences, but CA has not been involved.” He believes that collaboration within the Region and with other states would help establish consistency and thoroughness by the California office. At the very least, the California Permitting Office is not fully accessing training possible through the Federal EPA, Region IX office.

Recommendation 5-3: DTSC should enter into a cooperative agreement with EPA to: 1) Access its technical assistance in revision and design of permit processing procedures; 2) Provide materials and training on Technical Review; 3) Participate in regional permitting discussions and training.

The Manager of the RCRA Facilities Management Office for the Federal EPA also gave his viewpoint that frequent changes in management and structure, noted in Chapter 4, have been a significant detriment to the efficiency and effectiveness of the DTSC permitting program. “California has gone through a pretty tumultuous past, including internal leadership, consistency, and quality of actions. That has not been the case with Arizona and Nevada. The California organization has been pretty fractured (but) ... things are starting to change... Historically California has had a lot of ‘acting’ personnel... (the Past Director) removed middle managers, and that stripped a lot of leadership and knowledge.”

The lapse of sufficient program management has been a significant problem for permitting, which has only recently been corrected. As a result, this study has come to the conclusion that future additional changes in management at the civil service level should be discouraged, to allow time for the recommendations of this report to be implemented and for leadership to be held accountable for those changes.

Recommendation 5-4: Future changes in management at the civil service level should be discouraged, to allow time for the recommendations of this report to be implemented and for leadership to be held accountable for those changes.

A summary of the remainder of Shaffer’s interview is provided in Table 2, with the entirety of the interview notes provided in Appendix H.

Table 2: Summary of Interview with Manager of RCRA Facilities Management Office for the Federal EPA

	Key Points/Observations
General Background	<ul style="list-style-type: none"> • Current Manager of RCRA Facilities Management Office has been in the position for 3 years, and before that was doing data side for EPA • Under the Toxic Substances Control Act, EPA maintains sole responsibility for permitting PCB storage/disposal sites; clean-up of PCB contaminated sites • EPA administers grant fund to CA for RCRA activity and sets goals for DTSC in accordance with GPRA – concern that this goal will not be met this year. • EPA maintains general oversight regarding maintenance delegations, reviewing state programs approximately every 10 years and taking back/returning delegations as needed. • EPA Regional office is able to assist states with more difficult facility permitting and with technical assistance.
California's status	<ul style="list-style-type: none"> • CA has gone through tumultuous past, including internal leadership, consistency, and quality of actions; NV and AZ have appointed new directors, but not had the frequent changes in senior management as CA • Specific issues include a fractured program compared to other states, scattered employees state wide often with no direct supervisory oversight; delayed or missed communications on project status or organizational decisions • The elimination of middle management resulted in lost leadership and knowledge and lower quality permits • CA permit quality could improve by providing permit requirements on the permit, as NV and AZ already do, rather than expecting and relying on facility to interpret and apply regulations to their site. • AL and FL are good programs with strong reputations, while CA is considered a strong program and environmental leader, but program management is not a considered strength. • CA asked EPA for advice on improving program 6 months ago and was provided 12 recommendations, but does not actively engage in collaboration with strong network of RCRA permit writers in other states with regular calls
Outcomes/ Metrics	<ul style="list-style-type: none"> • Goal is set for number of permit decisions per year, negotiated through grant work plan process; failure to meet goals results in discussion of grant dollars but EPA won't immediately withdraw the money • EPA tracks permitting actions, reviews list of facilities with expired permits and forecasted renewals with DTSC at least every two months • CA data quality is a big issue – DTSC needs to own and maintain accurate data to provide comprehensive understanding of regulated universe
Risk Standards	<ul style="list-style-type: none"> • EPA has extensive risk assessment protocol and sees it as their role to provide assistance to states at various times • CA has not adopted Federal Standards, not required to do so. • EPA assisted in part of Kettleman assessment, offered but was declined to assist in Exide • Part B Application is federally mandated – Caleb provide 15 page training module on Part B; EPA has done training, audited permit decisions – but stopped doing that about 10 years ago – may be needed again

Process and Project Management

Both Process Management and Project Management are disciplines that provide a framework for planning and control of permitting work. Typically the Process Management framework is used for work activities that best meet the definition of process: A set of defined incremental activities that transform an input to a valuable output for an end-user or customer. The Project Management framework is best used to plan and control work that best fits within its definition: A temporary endeavor undertaken to create a unique product, service, or result.

This study observed that while Permit Renewal largely conforms better to the definition of process, it also conforms in some important ways to the definition of project. The project aspects that are particularly relevant are the unique attributes of each facility, its site, and its operational plan. Indeed, many of the comments made by Permitting staff during the course of this review were related to the unique attributes of each facility and its renewal.

Process Management applies to Permit Renewal in that the legal and procedural steps required for evaluation of an application, and the order of primary actions is applied repetitively.

Overall, there is a useful purpose for the application of both process management and project management practice in permit renewal. The background and logic for using several relevant project management techniques are provided in Chapter 4, starting on page 29, under the heading “Permit Team’s Conclusions Regarding Success.”

The specific project management techniques recommended include the use of a charter³² and a project plan for each permit renewal.

Recommendation 5-5: Each project manager should initiate a project “charter” at the time of the ‘call-in letter’, and should complete that charter by the time a complete permit renewal application is received. A project charter structure will direct the project manager to consider and plan for all project variables, and should address:

- the significant objectives to be addressed;
- what is “in scope” and “out of scope” for the action;
- the specific deliverables that will be produced;
- the estimated effort, cost and duration of the effort;
- the required project team and what roles they will have;
- the communications plan for the project team;
- the stakeholders and any role they will have;
- the renewal project assumptions, constraints, threats and necessary approvals.

The charter will help in structuring the project team and in development of the project plan.

³² A Project Charter is a document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. It often includes scope, deliverables, a timeline, stakeholders and other relevant project information.

Recommendation 5-6: Immediately after completion of a charter, the project manager should develop and post a project plan for each renewal. The project plan should show all major tasks, and a timeline for completion of each. This project plan should be reviewed and approved by a supervisor and a team lead for that type of renewal.

Implementation of the following additional process management best practices will also assist:

Recommendation 5-7: Develop a standard lexicon of terms regarding permit renewal actions, so terms such as Notice of Deficiency are not used during Administrative Review, and so that a common, standard process is consistently described in all departmental communication.

6) Stakeholder Attitudes

Introduction

As a part of the assessment of the existing DTSC Permitting Process, stakeholder attitudes were assessed through structured interviews (individual and small group interviews) and a survey. There was an intended overlap between the two, and the survey was primarily intended to obtain feedback from those who did not or were unable to participate in interviews.

Since this study was commissioned to answer several specific questions it was decided that questions should begin with the principal areas of investigation, although several questions outside the scope of the primary investigation (such as financial assurance) were added. The questions were viewed as a means of developing the reasonable expectations for permitting, to see whether shared expectations exist within various interest groups, and to evaluate the additional areas. The following questions were developed by CPS HR consultants and project advisors to achieve that purpose:

- What should the permitting program accomplish?
- How well is the permitting program meeting those expectations?
- What is working or is not working with the permitting process?
- Provide specific examples of what is working or is not working.
- What should be the criteria for denying or revoking a permit?
- How should the permitting and enforcement programs inter-relate?
- Is financial assurance being adequately addressed?

The DTSC Office of Communications provided public contact lists as a starting point, and Advisory Committee members helped consultants to identify the stakeholders to be invited to reflect a balance of different program interests. In all, 41 persons were identified in three broad categories (A full list is provided in Appendix I). A total of 21 persons were identified as representatives of community involvement and environmental organization. This group is referred to as “Public Interest/ Advocates” in this report. A total of 10 persons were identified as representatives of permittees or the waste disposal industry, and lobbyists or attorneys were included in this group. This group is referred to as “Industry/ Lobbyist”. A total of 10 additional persons were identified who represented “General/ Government” including past DTSC officials (including two previous Department Directors) Federal EPA, two Certified Unified Program Agencies (CUPA), and several former legislative staff persons familiar with the issues.

The project team (CPS HR consultants working with the two Advisory Committee members) first attempted to schedule the interviews in five separate focus groups by interest group and in regional areas, and invitations were sent to all participants. Originally this was planned to include an Industry and Lobbyist focus group in Sacramento on June 3; a Public Interest/ Advocate group in Los Angeles on June 5; another Public Interest/ Advocate group in the Bay Area on June 10; and a “legislative and regulatory” group in Sacramento on June 3. Due to low response rates, CPS HR canceled the focus groups and instead invited stakeholders to participate in individual or small group interviews, most of

which were conducted by telephone conference call. All identified stakeholders were contacted via email using an email template to standardize communications. Follow-up emails were sent or phone calls made to those stakeholders that did not respond to requests for participation.

Ultimately, 22 of the 41 invited responded, including nine from the Public Interest/Advocate group, seven from the Industry/Lobbyist group, and six from the General/Government group. With the exception of one focus group held at the CPS HR Offices in Sacramento on June 3, which involved four Industry/Lobbyist representatives (three in-person and one by phone), and separately three individual in-person interviews, the remaining stakeholders participated in individual or small group telephone interviews. The three in-person interviews were conducted with the former Department Director on May 15; the former Acting Department Director on May 21; and with a Consumer Advocate, on June 5. The full list of participants is provided in Table 3.

Table 3: Stakeholder Interview Participants

Stakeholder Category	Stakeholder Name	Interview Date
Public Interest/ Advocates	Luis Olmedo	6/3/2013
	Liza Tucker	6/5/2013
	Ingrid Brostrom	6/11/2013
	Bradley Angel	6/17/2013
	Maricela Mares-Alatorre	6/17/2013
	Denise Duffield	6/26/2013
	Martha Dina Aguello	6/26/2013
	Daniel Hirsch	6/26/2013
	Andres Soto	6/27/2013
Industry/ Lobbyist	Bob Hoffman	6/3/2013
	Chuck White	6/3/2013
	Peter Weiner	6/3/2013
	Bob Lucas	6/3/2013
	Phillip Retallik	6/20/2013
	David Nielson	6/20/2013
	Bob Brown	7/2/2013
General/ Government	Maureen Gorsen	5/15/2013
	Maziar Movassaghi	5/21/2013
	Gale Filter	5/28/2013
	Mohsen Nazemi	6/7/2013
	Ed Lowry	6/7/2013
	Caleb Shaffer	7/19/2013

Interview Responses and Analysis

The interview responses, separated by stakeholder group, are summarized herein.

Section 1: Summary of Input from the Public Interest/Advocate Group

According to the activists group, DTSC's permitting program should accomplish safe management of hazardous waste in California. They expressed that DTSC should exercise its authority in order ensure protection of public health, safe disposal and equitable management of hazardous waste.

Related to how well the permitting program is meeting those expectations, the consensus was "not well." Points to support this view include a perceived strong bias towards industry at the expense of public health, facilities operating without permits or in interim status, a perceived lack of adherence to law, failure to consider cumulative impacts and a lack of transparency and poor communication with the public. Multiple stakeholders in this group expressed the view that DTSC does not fully leverage the authority they are granted and that the industry holds the strongest position of power in the process³³.

When asked what is working well with the permitting process, most of these stakeholders did not have any input, although it was mentioned that it is better to have facilities permitted than not, even if the process is flawed. Regarding what is not working well, their comments focused on: the ties that current or former DTSC employees have to industry; a public process that is ineffective; health concerns in burdened communities; perceived incompetence of DTSC staff, and; subpar data systems (e.g., EnviroStor). Their recommendations included implementing timelines for permits, changing the fee structure for permits, and adjusting the ebbs and flow of the work cycle by staggering the length of permits based on set standards.

Multiple examples were given of what is not working in the permitting process, including the following:

- *Santa Susana Field Laboratory (SSFL)*. Discussion revolved around the influence of Boeing (owner of SSFL) on DTSC. Examples that were given included a workgroup (that included agencies and community members) that was dissembled by DTSC and replaced by a group with Boeing representatives taking the place of community members. Discussion included past illegal behavior on the site allowed to occur by a perceived lack of enforcement, resulting in an explosion and worker deaths. Additionally, previously agreed upon clean-up agreements for contamination at the site were changed; advocates felt this occurred based on Boeing's influence over DTSC³⁴.

³³ Issues relative to the function or authority of the Department as a whole are beyond the scope of this report, except to note the unanimity of opinion on this issue, from the Public Interest/ Advocate Group.

³⁴ DTSC officials explained that this site was a former rocket and nuclear energy experimentation facility operated by the US Department of Energy and Boeing's predecessor, Rocketdyne, and that it had hazardous waste storage and surface impoundment units under a permit at one point in time. They stated that surface impoundments have been closed and are now under a post closure permit. One of the permitted storage areas was in DOE's operational area and has yet to go through the "closure" process. All of these regulated activities are currently being wrapped together into the Cleanup

- *Kettleman Hill Landfill*. Discussion revolved around the opinion that DTSC does not put enough consideration into the cumulative impact on the vulnerable community of Kettleman City during the permitting process. An example was given of an insufficient Environmental Impact Report (EIR) conducted by the county during the CEQA process that DTSC accepted instead of developing a new EIR.
- *Exide Technologies – Vernon Plant*. The facility was given a corrective action in 2002 that was never put in place.
- *Phibro-Tech*. The facility has operated for 16 years on an expired permit, did not follow corrective actions required by DTSC, and fought financial assurance requirements.
- *Western Environmental, Inc. – Mecca Facility*. The facility operated without a valid RCRA hazardous waste permit without DTSC’s knowledge; activists felt this demonstrated a clear lack of communication within the department.
- *Casmalia Resources Hazardous Waste Management Facility*. The facility was closed after community protests. Inadequate financial assurance led to tax dollars paying for a large part of the closure.

When asked about the criteria for denying or revoking permits, the activists were in agreement that minor permit violations (e.g., issues with paperwork) should not lead to serious consequences but serial violators should have their permits denied or revoked (e.g., 2-3 serious violations that have potential to impact public health). Suggestions included putting more emphasis on cumulative impacts, past compliance issues and financial liability. Activists discussed strict fines for violators and a consistent, quantifiable formula for DTSC to follow when deciding whether to deny or revoke permits; they felt it should not be left up to the discretion of individuals and should follow the law.

Regarding the inter-relation of the permitting and enforcement programs at DTSC, activists felt efficiency could be increased by improving communication between the programs. A specific suggestion inferred if permit operating conditions could be made very clear and adjusted to fit the patterns of behavior, it could improve coordination between the permit writer and the enforcer. Additional discussion on the topic focused around the poor job many felt both programs were doing (i.e., weak, polluter-friendly, and lax).

Discussion on financial assurance focused on ensuring that publicly funded money is not used for clean-up if or when DTSC fails to require adequate financial assurance from facilities. Suggestions included adjusting financial assurance for inflation each year, considering the enforcement history of a facility when determining appropriate amount of financial assurance, always requiring financial assurance when a corrective action order is in place, and not adjusting clean-up costs or fines for a facility based on their financial situation.

Program’s site investigation and cleanup processes, and as part of their process they intend to complete the administrative requirements of closure or post closure along with the cleanup certification.

Section 2: Summary of Input from Industry/ Lobbyist Group

According to the industry/lobbyist group, the permitting program should allow for the ability to get a permit within a reasonable period of time if the company is meeting the law and other standards. Additionally, the program should ensure there are sufficient permitted facilities to handle California's hazardous waste and manage the permitting process with specific timelines for actions. Group representatives believe that the imposition of specifications beyond what is required by law should not be arbitrarily imposed, and should be justified by the need to protect human health and environment.

It was expressed that the permitting program is not meeting these expectations and that something in the process is fundamentally flawed. Facilities should no longer be operating under interim status and DTSC is not anticipating workload well based on permit renewal dates. No timelines exist that hold employees accountable for making timely decisions.

When asked about what is working well, it was mentioned that some permit writers put forth great effort and that the process for smaller or less controversial facilities is adequate (though it still has room for improvement). Some, but not all, in the industry/lobbyist group did feel that the new reorganization of DTSC is a step in the right direction and is designed for accountability and consistency. Regarding what is not working well, the discussion focused on DTSC allowing unreasonable opposition to permits that is not based in science or law, political issues (e.g., Director being a political appointee), a lack of consistency between permitting process for different facilities, personnel issues (i.e., permit writers not suited for the job and not being rewarded for success - only punished for failure), and a lack of support from other programs or offices within DTSC (e.g., legal). A steering committee was recommended to track progress and help lower level employees like permit writers or technical experts clear obstacles and make decisions. Other recommendations included focusing on statute and regulations only, contracting out the permitting program, and implementing the Federal program and switching all states to a "permit by rule" system (requires facilities to have plans on file for inspection rather than approved beforehand).

Examples were given of permits tied up in legal processes for years without "justifiable" reasons. Other examples of what is not working well included:

- *Kettleman Hills Landfill*. EPA has stated that there is no harm to human health and the environment at the facility yet the permitting process is delayed based on concern expressed by the public.
- *Exide Technologies – Vernon Plant*. The facility serves as an example of when a permit should be revoked; it is on an interim status permit and has numerous air quality, solid waste and hazardous waste issues.

When asked about the criteria for denying or revoking permits, the permittees and representatives expressed that this should occur when permit holders do not abide by the state required criteria. Other suggestions for denying or revoking include if the permit applicant does not meet administrative completeness, previous compliance issues exist, or if financial unpinning falls apart. It was recommended that criteria are laid out clearly and decisions be based on science and law instead of emotion.

Regarding how the permitting and enforcement programs should inter-relate, two points of view were discussed. On one hand, they feel it is important for the two programs to be able to speak the same language for efficiency's sake; it was also expressed that not contaminating each process is important.

Discussion around financial assurance focused on the fact that despite past issues, financial assurance is required currently and is evaluated annually. Examples were given of facilities that closed with costs even less than what was posted via financial assurance. A suggestion was made that DTSC contract out the financial assurance function of the permitting program to an entity that possesses the appropriate knowledge on the topic.

Section 3: Summary of Input from General/ Government Group

When asked what the permitting program should accomplish, the general/ government group representatives stated that it should identify lawful behavior and give very clear guidance about lawful operating conditions and what is required of the permitted facilities. Other expectations include coordination with other permitting and regulatory agencies and suggestions for timelines that other agencies follow were given. Regarding how well the permitting program is meeting these expectations, the answer was "not well"; though many public agency representatives did not feel comfortable answering this question because they think they are too far removed from the current process.

No comments were provided about what is working well within the permitting program. Related to what is not working, public agency representatives mentioned unclear language in permits, lack of incentives for facilities to obtain current permits, a lack of clarity about roles of various regulating agencies, and inconsistencies in databases across agencies. Multiple issues around institutional design were presented with the point made that the current design does not lend itself to swift decision making. Discussion centered on internal power struggles within DTSC, a lack of accountability and responsibility for outcomes and limited career ladders that lead to too many employees in management (i.e., promotions are made to retain employees because there are only two levels of scientist positions).

Multiple examples of what is not working with the permitting program were provided, including:

- A property had contamination when a new owner bought the land for storage of equipment and was told he would not be culpable for the clean-up; 15 years later he received a bill for \$800,000 from DTSC. The culpable person was no longer alive and able to fund the clean-up. The amount of money that had accrued was only from DTSC reviewing the information, no active steps or physical work to clean up the site had occurred.
- A consultant developed a scientifically sound plan to remediate the contamination for a strip mall project, spending \$30,000 to build the plan. Following, DTSC spent 18 months reviewing the plan. Fifty hours a week for 18 months was charged by DTSC to review the 30 page document, resulting in a total fee of \$180,000 for the review. Thirty three DTSC employees reviewed the same document.

- Examples were given of how different regulating agencies within California do not know what the other agencies are doing and of DTSC holding facilities to different standards than other permitting or regulatory agencies in CA.

When asked about the criteria for denying or revoking permits, public agency representatives suggested categories of standards that would lead to denial or revocation (e.g., one imminent endangerment to environment or community, three serious violations, or numerous violations that are not serious). The difference between the two concepts was also discussed. It was suggested that denial of a permit should be dependent on a holistic analysis around protection of the public from exposure or releases and revocation of a permit should be the result of a history of not being able to comply with important permit conditions.

It was expressed that permits should be written to be clear and enforceable but there were differing opinions regarding how the permitting and enforcement programs should inter-relate. Discussion included the idea that one program should be handling both functions as well as that permitting and enforcement should be completely separate from one another to allow due process.

Regarding financial assurance, public agency representatives commented that DTSC has not always pursued financial assurance fully, that assumptions do not always appropriately take into account catastrophic events and many smaller companies would not have the resources to cover clean-up.

Survey Responses

In order to capture the largest amount of stakeholder input within time and resource restraints, the entire group that was invited to participate in focus groups or interviews was offered the opportunity to complete an attitude survey regarding the permitting program, and offer open-ended comments as a part of that feedback. The survey questions were developed by the CPS HR consultant and designed to assess overall stakeholder attitudes on the current permit processes, and issues relevant to this study.

A five point Likert scale was used to assess the scaled response section, which included the first eight statements of the survey:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree.

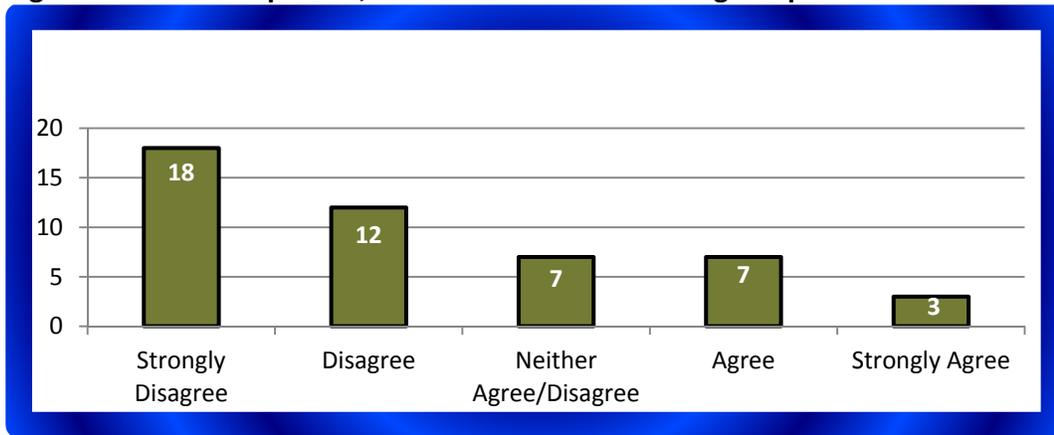
CPS HR utilized an online software tool, Qualtrics, to develop and administer the survey. Qualtrics allowed respondents to access the survey through a web link, sent via e-mail. The survey invitations were sent following the interview sessions with each participant. Respondents were given a due date of June 15, 2013. The full online survey is located in Appendix J.

Results

At the conclusion of the data collection period, of the 41 stakeholders who were invited to complete the survey, two in the Industry/Lobbyist group and two the Public Interest/ Advocate group had completed the survey in addition to two partial completions by uncategorized stakeholders. The data was analyzed and results are reported as an aggregated summary to ensure confidentiality.

Despite the small size of the respondent group, the results seemed to conform to the tone and content of the focus groups, and the formal scale for response added an objective satisfaction measure to amplify the meaning, and to give the Department a formal basis to track any future changes that may occur. Primarily for these reasons, the results (even though based on a very limited sample size) are provided below. As can be seen in Figure 4, the survey respondents largely disagreed with the statements, indicating overall dissatisfaction with the current permitting process.

Figure 4: Scaled Responses, Overall Stakeholder Rating Frequencies



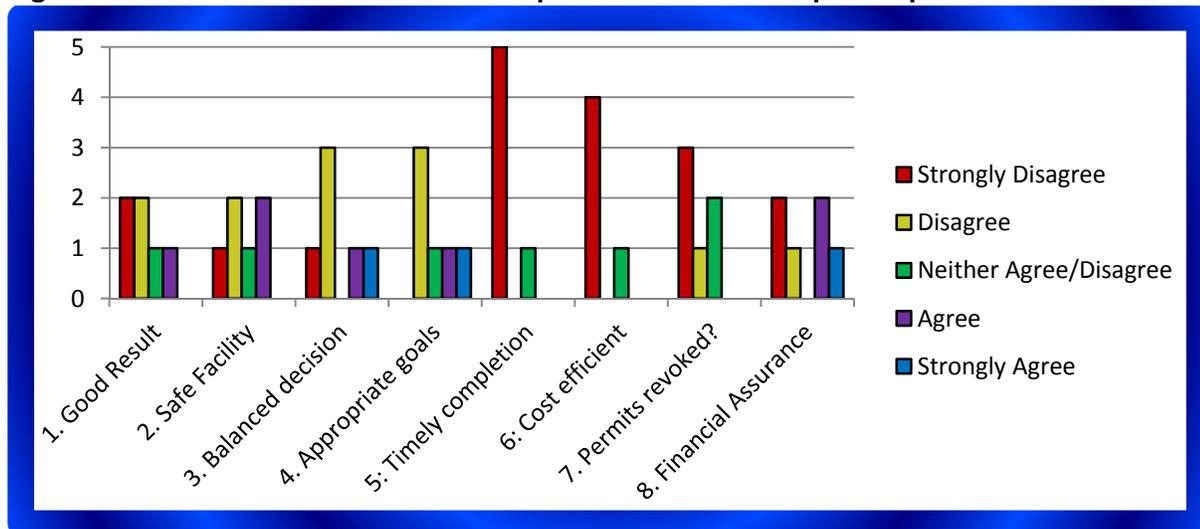
As demonstrated in the distribution of responses for each of the questions, documented in Table 4 and Figure 5 below, the stakeholders were most dissatisfied with the cost and length of time it took to complete the permit process. Additionally, they did not feel that permits were revoked as needed or that the overall process ended with a good result.

The failure to obtain what is perceived as a “good result” may be the most concerning, since a fundamental statutory role of the Department is to protect the health and safety of the public, and to protect the environment, but there are no objective measures to show success in these areas. As a result, the quality of the permitting work depends on the positive perception of those attributes by stakeholders, which does not now exist.

Table 4: Distribution of responses by Question

Survey Question	Strongly Disagree (1)	Disagree (2)	Neither Agree or Disagree (3)	Agree (4)	Strongly Agree (5)	Average (SD)
1) Most times the permitting process produces a good result.	2	2	1	1	0	2.17 (1.17)
2) Most times the end result of the permitting process is a safe facility with an enforceable permit.	1	2	1	2	0	2.67 (1.21)
3) Permit decisions show an appropriate balance between community needs and regulatory requirements.	1	3	0	1	1	2.67 (1.51)
4) I think the DTSC permit program has appropriate goals.	0	3	1	1	1	3.00 (1.26)
5) The permitting process is almost always completed in a reasonable period of time.	5	0	1	0	0	1.33 (0.82)
6) The permitting process is almost always completed at a reasonable cost.	4	0	1	0	0	1.40 (0.89)
7) Permits are revoked when necessary.	3	1	2	0	0	1.83 (0.98)
8) Financial assurance is being adequately addressed.	2	1	0	2	1	2.83 (1.72)

Figure 5: Distribution of Stakeholder responses for scaled response questions.



Analysis of All Stakeholder Comments

Despite a diversity of opinions gathered in this process, an unanimity of opinion exists in several key areas. All three groups reported similar ideas that permit revocation or denial should be based **only** on 1) the presence of a clear, documented threat to public safety, human health, or environmental preservation OR 2) failure to meet a pre-determined set of clearly defined and measurable criteria after a holistic analysis of the facility. Many respondents endorsed the idea that permit revocation or denial should be based on the total number of violations, abidance with laws/regulations, compliance with corrective actions (current and historical), and availability of financial assurance in the event of closure. Just as importantly, none argued against these ideas.

Ironically, both the Industry/Lobbyist group and the Public Interest/Advocate group felt that the Department's decisions are unduly influenced by the other, and that they do not get what they perceive is fair and equitable treatment.

Other suggestions endorsed by many stakeholders were to:

1. Create clear, objective, and measurable criteria for making denial/revocation decisions so they are based on facts of science and law and not on emotion or individual discretion. For example, have three class 2 violations equal a class 1 and three class 1 violations result in immediate revocation of the permit.
2. Identify appropriate process timelines and enforce them.

In addition to these two general areas of improvement, the Public Interest/Advocate group representatives also made the following suggestions:

- Add specific measurable environmental parameters for air, soil, and water conditions to the permit process and make that information available and understandable to the facilities and to the public utilizing a system that is easier to use than Envirostor.
- On the Administrative side, change the fee structure for permits and stagger the permit lengths to adjust and balance the ebbs and flows of the work cycle.
- Personnel procedure suggestions included reducing the amount of Management staff by offering incentives other than promotion to retain staff, cross training permitting staff and enforcement inspectors and providing better permitting training overall, and eliminating the ability for lobbyists/lawyers to go above regulators heads to upper management to complain about permit conditions/stipulations.

The Industry and Lobbyist group representatives identified the following additional suggestions:

- Re-emphasize to DTSC permitting staff that the goal is to ensure enough authorized facilities to handle California hazardous waste, not trying to prove fault with a facility. The permitting process is a collaboration with the Hazardous Waste facilities – the facility should not be treated as the opposition.
- Focus on ensuring that facilities understand and follow statutes and regulations without imposing extra requirements unless they are clearly linked to the preservation of human health, public safety, or the environment.

- Create a steering committee to track permit progress and help permit writers/technical experts clear obstacles and make decisions to avoid unnecessary holdups in the process.
- Contract out permitting or implement a Federal program to switch to a “permit by rule” system.
- Analyze the reasons for requirements imposed on some facilities that are beyond statutes and regulations and if there is no concrete, objective reason related to the preservation of public safety, human health, or the environment – eliminate the excess requirements. Additional requirements beyond statutes/regulations should not be assigned by independent discretion.

Overall, the three groups presented similar ideas of permitting goals, current deficiencies, and future improvements with each group being focused on a slightly different viewpoint³⁵. The Public Interest/ Advocate Group focused on the result of the permit process and provided multiple examples of permit processes with negative repercussions to the community, public, or environment. The Industry/Lobbyist Group was more focused on the process, length of time of the permitting process, and the road blocks within the process rather than what occurred after the permit was received. The General/Government Group focused on a combination of the two addressing some specific negative repercussions but mainly focusing on obtaining the most efficient process.

Many of the specific suggestions provided do not have any associated logic or analysis to support their believed benefit. For example, the opinion of the public interest/ advocate group that “reducing the amount of management staff” would have a beneficial effect is contrary to the analysis of this study, and without its own justification. Likewise, the results of this study indicate an unlikely benefit for the suggestion of some industry/ lobbyist group representatives to “create a steering committee to track permit progress and help permit writers/technical experts clear obstacles and make decisions.”

The most meaningful shared stakeholder concerns include:

1. The need to create clear and objective criteria for making denial/revocation decisions that are based on valid standards of performance and threat;
2. A standard for violations that would lead to a denial or revocation;
3. The need for the department to document and measure a scorecard of attributes that would be perceived as a “good result” for the permitting program;
4. The need to identify and measure appropriate process timelines, and;
5. The need to document, maintain and implement effective financial assurance standards.

Findings and Recommendations

This section provides further analysis of several areas of common belief discovered (as noted above) during the stakeholder analysis. This further analysis was undertaken at the request of the project advisors, as a means of providing further direction to the Department in Permitting Program

³⁵ A table summarizing and comparing the responses from the three groups is available in Appendix K, with the entirety of the Raw Comments in Appendix L.

improvement. This analysis was based on additional interviews with Department officials and document review.

- **Finding:** The Department does not have clear and objective criteria for making denial/revocation decisions that are based on valid standards of operational performance and threat. Two significant and related factors are that there are no clear and objective standards for violations that would support a decision to deny or revoke a permit; and there is no standard for denial or revocation based on three issued Notices of Deficiency. These problems should be resolved.

Recommendation 6-1: The Department should develop a new system of categorizing violations that reflects whether they present an immediate and direct threat to human health and safety, versus a less urgent threat that can be mitigated or resolved through further actions of the Department. The Department’s current definition of “Class 1 violations”, although mandated by law, includes both violations that pose immediate and direct threats along with many that are relatively low- or long-term threats. Until the Department has a system of violations that can distinguish between significant threats to human health and safety and lesser threats, it will not be able to provide an objective standard to guide its own staff actions and to inform the public that the significant threats have been mitigated through actions such as permit modification, denial or revocation.

Discussion: The current legal definition of Class 1 violations is contained in HSC 25110.8.5 (a), and includes language that defines significant and imminent threat (in sub-paragraph 1), along with language that better defines relatively low threats (in sub-paragraph 2). Sub-paragraph (2) includes any “deviation (that is) significant enough that it could result in (a significant threat).”³⁶ This overly-broad definition has inhibited the public perception of high-threat violations that need appropriate action by the Department. This deficiency could be addressed in a number of ways. Perhaps most directly, the Department could work collaboratively with the California State Legislature to revise the definition in law. But the Department should probably first have a firm definition of its preferred language, and that could be developed through creation of its own advisory standards as a first step. Such advisory standards may need to define both a threat standard and an operational behavior standard that reflects the most significant threats, and to distinguish those from events that might only represent a single indicator or operational deficiency, or an event that needs short-term correction to mitigate a possible threat. Three other states – Arizona, Alabama, and Florida - as recommended by EPA, were briefly reviewed as a comparative reference to California’s processing. One of the discoveries was a detailed violation matrix from Arizona, which has been partially replicated in Appendix N as a potential starting point for discussions and the creation of defined violation categories. Additional information on these three states is available in Chapter 8, pages 95-96.

³⁶ The current Violation Regulations definitions are provided in full in Appendix M.

A closely related issue is in regard to a mistaken public understanding regarding a legal requirement that a permit be cancelled or revoked after issuance of three Notices of Deficiency during a permit renewal cycle.

- **Finding:** There is currently no defined requirement that the Department “initiate proceedings to deny the permit application” unless the applicant either: 1) “does not respond” in a timely manner, or: 2) Responds with substantially incomplete or substantially unsatisfactory information on three or more occasions.” In other words, it is commonly misunderstood that the Department should or must act to deny a permit after three Notices of Deficiency.

Recommendation 6-2: The Department should distinguish between Notices of Deficiency that are prejudicial from those that are not, with grounds for prejudice being defined by the language in HSC 25200.8, including “substantially incomplete or substantially unsatisfactory information”, or an untimely response. This change should be pursued as a change to Administrative Law. (The definition of “prejudicial” in the context of this recommendation is that an action to revoke a permit or renewal action would be required after a maximum of three such actions.)

Discussion: The Notice of Deficiency is a notice used during technical review of a permit application, to clearly instruct the applicant regarding deficiencies in their proposed Part B application and/or Operational Plan. A broad misunderstanding of the significance of issuance of three or more of such Notices has created unnecessary controversy and concern, affecting the belief and actions of DTSC workers and the interested public. The Department should clarify those instances where responses to such letters are accepted with prejudice, to communicate both to the applicant and to the public that a breach of good faith has taken place.

During discussion of both of these issues with the Deputy Director for Hazardous Waste Management and the Chief of Enforcement, there was agreement that the lack of an adopted threat standard for permitting actions is also a significant inhibitor of one of the primary stakeholder criteria for the denial or revocation of a permit: “the presence of a clear, documented threat to public safety, human health, or environmental preservation.” The current Chief of Permitting also agreed that this is a significant program constraint.

The Federal EPA representative stated that EPA does have a risk standard that could be used by DTSC. Project Advisor Bill Magavern agreed that DTSC should articulate a standard for the presence of a clear, documented threat to public safety, human health, or the environment, and supported the use of USEPA’s one-in-one-million cancer death risk standard. But he also advised that the Public Interest/Advocate group would not support over-reliance on risk assessments, because they can be manipulated to justify a predetermined result.

Recommendation 6-3: DTSC should develop and adopt a risk standard for permitting, consistent with stakeholder input that the program must have a standard to demonstrate a clear, documented threat to public safety, human health, or environmental preservation, as a primary driver of appropriate permitting action.

It is noted that many stakeholders support imposing a limit on the length of time and the conditions under which a facility can operate on an interim permit, to eliminate situations where facilities continue for many years on expired permits – even though it is legal to do so as long as the permittee has submitted a timely and complete application within 30 days or more prior to the expiration date of the previous permit³⁷. Most persons who advocate such a standard agree that it should not be imposed when permittees are operating in good faith and encounter unanticipated delay, but only where there is a lack of good faith or an unresolved threat to public health and safety. The adoption of Recommendations 6-1, 6-2, and 6-3 will reduce the possibility that such “bad faith” and high risk facilities will be allowed to operate for many years on expired permits. Study Advisor Thomas McHenry notes that there is nothing inherently bad about an expired permit associated with a permit renewal – and that often such extensions of time are allowed only with additional limitations on the facility that are viewed as necessary to protect the public.

Financial assurance was a subject of strong interest among both the Public Interest/ Advocacy group and the General/ Government Group. The Industry/ Lobbyist group was not opposed to the maintenance of appropriate financial assurance, but felt that an appropriate standard now exists. The shared hope is that permitted facilities set aside and maintain sufficient financial capacity to ensure publicly funded money is not used for clean-up and closure.

To best document current practice, consultants scheduled an Aug. 1 interview with the Division Chief for Policy Implementation and Support, and the Financial Responsibility Unit Manager. They stated that the Financial Responsibility Unit is charged with securing an appropriate financial mechanism for each permittee, and ensuring that it is enforceable by the Department. However, they are not involved with the cost estimate, and rely on the Permitting Project Manager to provide the correct amount.

The Financial Responsibility Unit Manager stated the Financial Responsibility Unit conducts a Financial Assurance Review regarding any permit action only on the request of the Permitting Project manager, and will make sure that the required financial commitment is available, and matches the cost estimate plus inflation.

The current Permitting Chief stated that it is Department policy to obtain and review the sufficiency of Financial Assurance at the time of permit or permit renewal, with allowance for annual cost adjustments to reflect future inflation. He stated that Permitting requires each applicant to provide a clean-up estimate prepared by a third party, and that should be reviewed and accepted by the Project Manager. However, he acknowledged there is no specialized staff to perform this function in Permitting, and that not all cost estimates are reviewed at this time due to insufficient staff to perform required tasks³⁸. He also acknowledged that Department policy of updating Financial Assurance cost estimates every five years for existing permittees is also not achieved due to a lack of staff.

³⁷ CA Code of Regulations, Title 22, Section 66270.51.

³⁸ Comments provided in an Aug. 21 telephone interview with R.Mallory, CPS HR Consulting.

As a result, it is a finding of this report that Department policy with regard to financial assurance is not being achieved, and that action should be taken to do so.

Recommendation 6-4: Expand the specialized staffing of the Financial Responsibility Unit to allow for its independent review of clean-up costs and financial assurance obligations, and require sign-off prior to permit renewal. Require compliance with Department policy to update financial assurance every five years. As an interim measure, DTSC should contract out the financial assurance function of the permitting program to an entity that possesses the appropriate knowledge on the topic.

It is noted that all participants agreed that the Permitting Office should establish reasonable timelines for each stage of the permit process and hold staff accountable for meeting these deadlines. While this recommendation seems to have merit, it is not based on a finding that there is either sufficient staffing to accomplish this work, nor a “best practice” process to follow to achieve any reasonable timelines imposed. Given the likelihood that systemic barriers may inhibit the accomplishment of these goals, and the elimination of systemic barriers is the job of management, it does not make sense to impose consequences for failure (“accountability”) on the hazardous waste engineers who serve as the primary staff persons responsible for permitting actions.

7) Employee Attitudes

Introduction

As a part of the assessment of the existing DTSC Permitting Process, a survey was created to obtain an overall perception of the current processes from current employees. The survey was designed to obtain information in three segment areas of inquiry. The first area assessed the overall timeliness, effectiveness, and clarity of the existing permitting process. The second area focused on more specific aspects of the permitting process and work environment. This included assessment of the workload and staffing levels, Permitting organization and management, work environment, worker commitment, and overall quality of the permit. The third area provided respondents an opportunity to provide general feedback, identify existing barriers, identify ways to assist project managers, and identify ways to make their job easier through 4 open-ended questions.

The first two areas, encompassing questions 1 to 64, utilized a five point Likert-type scale using the following scale anchors:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree or Disagree
- 4 = Agree
- 5 = Strongly Agree.

In the event that the respondent felt that the statement did not apply to the permitting processes at DTSC, a sixth rating scale option, "Not Applicable", was also provided.

While the interpretation of favorable versus unfavorable scores on surveys of this type is subject to professional judgment, we have accepted that scores of 2.8 and lower identify areas that have a strong need for attention. Scores of 2.81 to 3.2 are regarded as mediocre but not necessarily actionable. Scores from 3.21 to 3.8 are regarded as good. Scores of 3.81 and above are considered excellent, and composite scores of 4.51 to 5.0 are almost never seen, since most participants will always see room for improvement.

In addition to the 64 statements and open-ended questions, the participants were asked to identify their location from the following: Sacramento – Cal Center; Sacramento – Headquarters; Chatsworth; Berkeley; or Decline to State; and to indicate whether they were in a supervisor/manager position or not. This reported distinction between the two classification levels will be referred to as supervisorial and non-supervisorial.

CPS HR used the online software tool, Qualtrics, to develop and administer the survey. Qualtrics allowed respondents to access the survey through a web link, sent via e-mail. The surveys were sent on April 9, 2013 to 25 DTSC employees, requesting their participation and response by April 19, 2013. The full survey is presented in Appendix O.

At the conclusion of the data collection period, 20 of the 25 invited respondents had completed the survey. A total of five of all respondents identified themselves as supervisory/managerial positions,

representing 25% of the total. The data was analyzed and results are reported as an aggregated summary to ensure individual response confidentiality.

Process Segment Analysis

The first area, encompassing questions 1 to 24, asked the same six questions about each of the four permit process segments, as defined below and depicted in the flowcharts presented on pages 36 to 39.

- **Administrative Review:** This process segment begins with initiation of a permit request, through submission of the Part A and Part B Applications, up to the Notice of Administrative Completeness.
- **Technical Review:** This process segment begins after Notice of Administrative Completeness and covers the review process up to sending a Technical Completeness letter, and completion of the “final” draft permit and CEQA documents.
- **Public Comment:** This process segment begins with the public notice of decision through any public hearing and a final Permit Decision.
- **Appeals Process:** This process segment begins with a Permit Decision to Completion of Permit Appeals Process.

One of the primary design elements of the survey was to obtain a structured and objective feedback from all Permit Office employees regarding the timeliness, effectiveness, and clarity of the existing permitting process overall and within each process segment. This was done using the Likert-type scale with the same six questions for each segment. The average rating for each of the questions by process segment is presented in Table 5.

Table 5: Average employee perceptions of Permitting Process

	Administrative Review	Technical Review	Public Comment	Appeals Process	Overall
1. DTSC follows a clear, standard process.	3.55	3.2	3.8	3.33	3.47
2. There are clear decision criteria.	3.4	3.2	3.55	3.00	3.29
3. This process segment is almost always completed in a reasonable period of time.	3.55	2.45	3.55	2.78	3.08
4. There are no “grey areas” in processing.	2.8	2.45	3.3	2.33	2.72
5. Most times this process segment runs well.	3.6	3.05	3.5	3.11	3.32
6. Most times this process segment produces a good result	3.55	3.3	3.45	3.44	3.44
Segment Average	3.41	2.94	3.53	3.00	3.22

While the overall score of all attributes of all process segments was 3.22 – at the bottom of the range that is considered “good” – there are several areas that ranked at 2.8 and below and are therefore targets for immediate action. The lowest ranked process segment was Technical Review, with a 2.94 “mediocre” overall score. Two areas of technical review received the lowest scores, with an average rank of 2.45 indicating a strong need for attention, and those were:

- “This process segment is almost always completed in a reasonable period of time”
- “There are no grey areas in processing.”

While permitting employees believe there is a “clear standard process,” and ranked that at 3.47, respondents still felt that there are grey areas in all segments, and ranked that overall at a negative and actionable at 2.72.

- **Findings:** Employees clearly feel there are grey areas in all process segments, and that these are worst in Technical Review. Permitting employees believe that “Technical Review” is the most problematic process segment. The 2.72 scoring of “grey areas” in all process segments supports a finding that the permitting process is not predictable, and needs improvement. It is reasonable to believe that the existence of grey areas directly contributes to delays and delays in processing.

Permitting Mechanisms and Work Environment

The second area of inquiry, encompassing questions 25 to 64, examined specific components of the permitting process and environment. This area had three sub-areas to break the questions into related items, as follows:

- Time, Resources, and Management Actions – encompassing questions 25 to 34.
- Permit Staff Workplace and Appreciation – encompassing questions 35 to 59.
- Permit Best Practices(Permit Quality) – encompassing questions 60 to 64.

Most actionable areas in the survey are revealed by looking at the lowest rated questions, and the following table shows the 15 lowest scores, overall, excluding the process segment responses shown above. The Time, Resources, and Management and the Permit Staff Workplace and Appreciation sub-areas had seven statements each in the bottom 15, with only one low rated statement from the Permit Best Practices.

Table 6: Lowest Rated Statements in Permitting Mechanisms or Work Environment

Question	Mean
43. Tools and guidance available for the permitting process are current.	2.05
25. Staffing resource levels are adequate for the job we are asked to do.	2.16
32. Permit actions do not suffer from inconsistent direction.	2.26
30. Project managers usually do not experience unnecessary delays due to the decision process within the Department.	2.42
27. Project managers are able to get subject matter expert review in a timely manner.	2.47
54. For most of the permit renewals I have worked on over the past two years, community representatives have assisted in making the process run smoothly.	2.56
42. Project managers are given sufficient training.	2.58
47. Management does a good job setting clear program goals and priorities.	2.63
33. Envirostor is making permit work harder.*	2.74
57. For most of the permit renewals I have worked on over the past two years community representatives have contributed to intelligent, appropriate decision making.	2.78
26. Project managers have sufficient time to give continuing focused attention to required permit activities.	2.79
29. Project managers are able to get analyst and clerical support services in a timely manner.	2.79
38. It is a rare exception when we are asked to do work that we feel is a waste of our time.	2.79
61. The required statutory and/or regulatory authorities used in permits are clearly understood by all.	2.79
45. Tools and guidance are adequate in order to enable me to do my job efficiently and effectively.	2.84

*Responses were recoded so lower numbers reflected more disagreement with the statement.

Findings:

- **Employees do not feel the “tools and guidance” are current (question 43) or “adequate ... to enable me to do my job efficiently and effectively (question 45).” It is observed that this is a likely contributory cause for the “grey areas” in process cited above. This finding is supportive of recommendations 1-2, 5-1, 5-2, 5-3, 5-7.**
- **Employees feel strongly that there is insufficient staffing to support the workload (question 25); and that they do not “have sufficient time to give continuing focused attention to required permit activities” (question 26). They do not feel that project managers can get necessary “analyst and clerical support services in a timely manner.” The staffing levels are further analyzed in Chapter 10 and supports reported perceptions of insufficient staff levels.**

- **Employees do not feel “the required statutory and/or regulatory authorities used in permits are clearly understood by all” (question 61). This finding is supportive of recommendations 6-1, 6-2 and 6-3.**
- **Employees feel that current management could better promote workflow with more clear and consistent direction and guidance.. (Reference to questions 30, 32, 38, and 47). This is supportive of recommendations 5-1, 5-2, 5-3 and 5-4.**
- **Employees do not feel that Project Managers are provided with sufficient training or internal resources for technical SME review to obtain efficient permitting processes. (question 27 and 42) or . This finding is supportive of recommendation 5-3.**

The top 6 statements (due to a 2 way tie for statements 5 and 6) are displayed in Table 7, with the results being split between the Permit Staff Workplace and Appreciation and Permit Best Practices sub-areas.

Table 7: Highest Rated Statements in Permitting Mechanisms or Work Environment

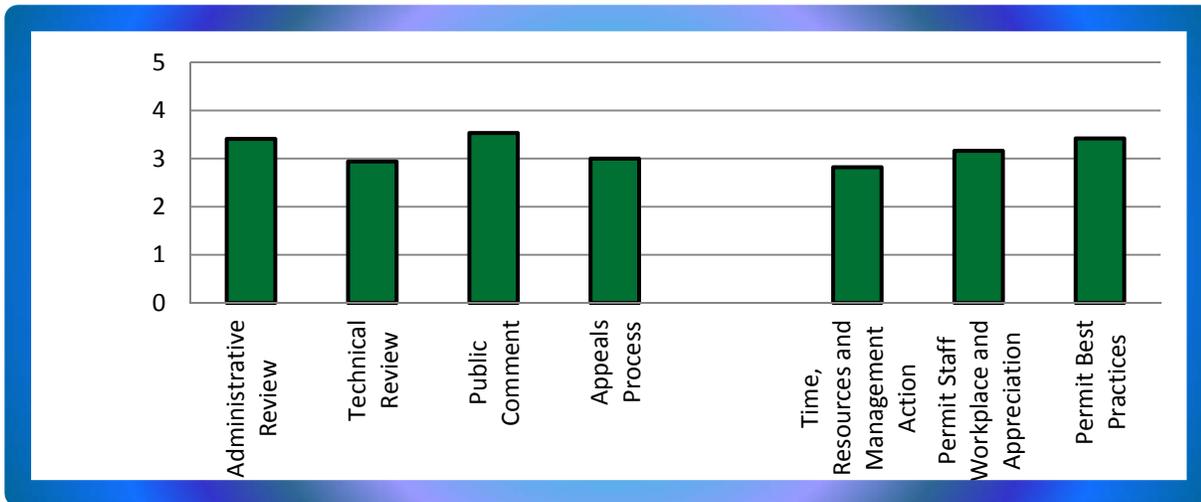
Question	Mean
40. I am personally committed to helping my work unit meet its goals.	4.29
41. My work makes a positive difference in the communities located near my facilities.	4.00
60. Permit requirements are clearly cited in the permit.	3.84
51. Most times the end result of the permitting process is a safe facility with an enforceable permit.	3.79
39. I am satisfied with the level of commitment to work shown by my co-workers in this work unit.	3.68
63. The permit is reviewed to ensure the most recent standards (e.g., laws, regulations, plans, policies) are being used.	3.68

Based on the least and most favorably rated statements, staff acknowledged that the presence of gray areas, the desire for more clear guidelines, but they are also committed to what they do and feel it does create a positive impact on the community. This is an indicator that staff may not only be open to changes but also be willing to help with the implementation of any changes that make the process more efficient and consistent.

Overall Scoring Responses

The overall scores provided for the primary survey segments are shown in Figure 6, and supports the findings that both the Technical Review phase, and the Time, Resources, and Management issues, described in the findings above, are the most negatively rated by employees.

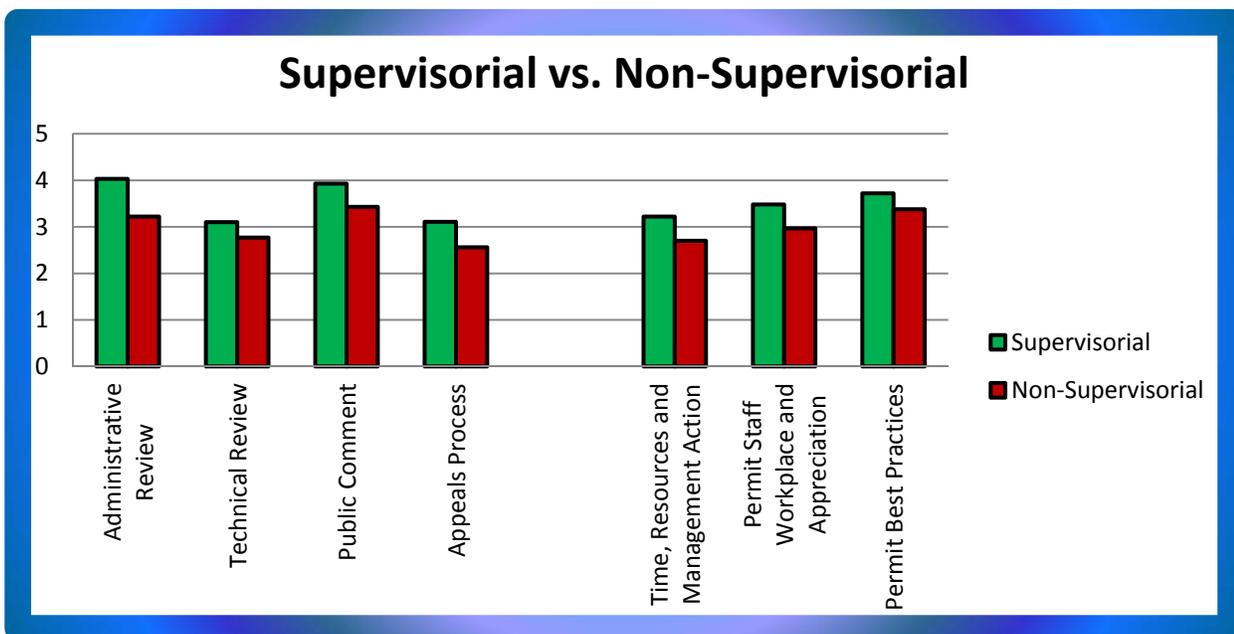
Figure 6: Survey Segments Overall Average Scores



Supervisory/Managerial versus Non-Supervisory/Managerial

In verification of key issues it is often helpful to see if the Supervisors and Managers share the same points of view as the employees, or if there is any contradiction. In order to do so, this analysis segregated supervisory and non-supervisory responses. The average response of the supervisory and non-supervisory respondents across the segments is presented in Figure 7. The full breakdown of average responses by individual statement for the Supervisory, Non-Supervisory, and Overall combined responses, along with the percentage of respondents who indicated each statement was applicable to their job, is presented in Appendix P.

Figure 7: Survey Segments Supervisory versus Non-Supervisory Average Scores

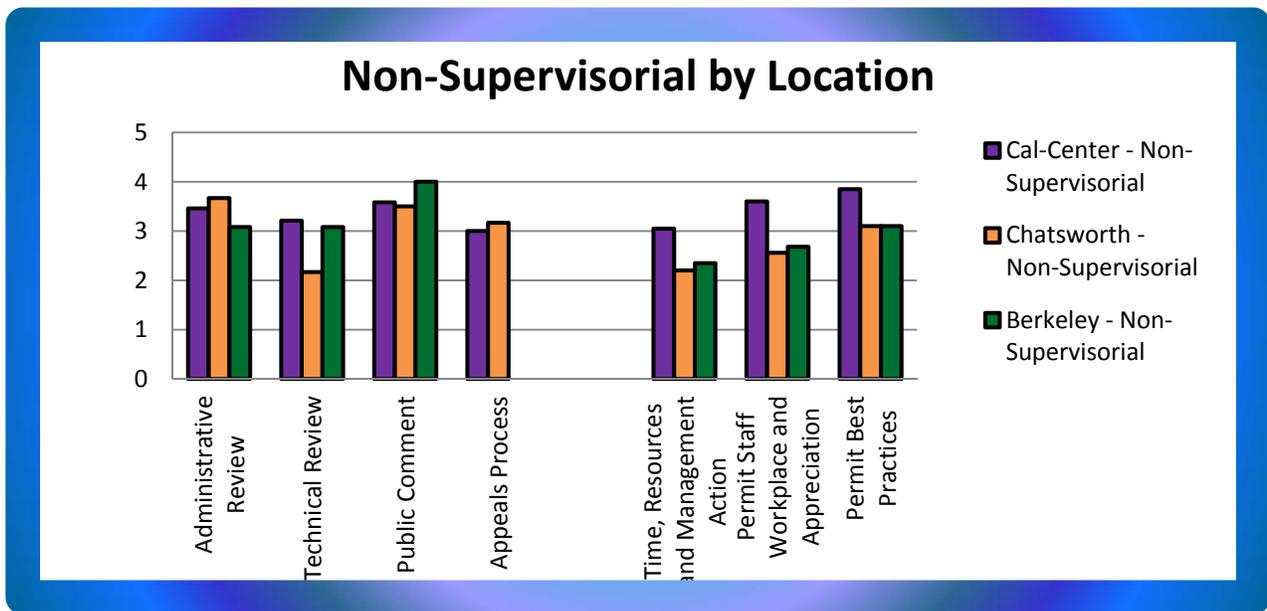


The results showed that the supervisory employees see management structures and workplace issues in a more positive light than do those who work in front-line service delivery. So for example, while supervisors scored the Time and Resources issues at about 3.2 (mediocre but acceptable), the front-line staff ranked them at about 2.7 (serious and needing action). Overall, the views of both the supervisory and non-supervisory staff conformed in relative ranking, and after accounting the positive bias of supervisors, in scoring as well.

Cal-Center, Chatsworth, and Berkeley Non-Supervisory

The supervisory respondents were all located in the Sacramento Cal-Center, but the non-supervisory were spread between the Sacramento Cal-Center, Chatsworth, and Berkeley. Figure 8 shows the average non-supervisory responses by location.

Figure 8: Survey Segments Non-supervisory by Location Average Scores



While no strong single themes came from this analysis, Chatsworth supplied the lowest rating for five of the seven categories, while Cal Center supplied the highest rating for four of the seven. For example, while Cal-Center scored the Technical Review period at 3.21 (good), the employees at Chatsworth scored them at 2.1 (serious and needing action). Similarly, the scores on Time, Resources, and Management statements averaged to 3.05 (mediocre) for employees at Cal-Center, but only 2.2 (serious and needing action) for employees at Chatsworth. Berkeley had more mixed results with the highest average score in the Public Comment (4.0 – excellent), but the lowest on the Administrative Review (3.08 – mediocre) while scoring in between Cal-Center and Chatsworth on the Time, Resources, and Management; Permitting Staff commitment and work environment, and Permit Best practices.

The lower scores in Chatsworth office potentially align with the fact that there has been no supervisor assigned to that office for many years, and the higher scores in the Cal Center Office potentially conform to the fact that most of the Permitting Office supervisors and team leads are in that office.

It is typical of organizational studies of this type that “face time” with leadership has the ability to improve understanding of the program and mission, on-going feedback on work performed, and morale.

The full breakdown of average responses by individual statement for the Non-Supervisory responses from the Cal Center, Chatsworth, and Berkeley locations, along with the percentage of respondents who indicated each statement was applicable to their job, is presented in Appendix Q.

Open Ended Question Analysis

The third and final section of the survey consisted of four open-ended questions to gather additional information on current processes, barriers to these processes, and potential suggestions to improve any issues. The overall themes from the open ended questions are explored here, but the full responses to the following four questions can be found in Appendix R. The list of questions and response rate is provided in Table 8.

Table 8: Employee Survey Open Ended Questions

Survey Question	Number of Responses
1. General feedback on ways to address current permitting process issues.	16 of 20 responded
2. What are currently the biggest barriers to a more effective permitting process?	16 of 20 responded
3. Do you have any suggestions about what could be done to help new project managers learn more thoroughly and quickly so they can start doing work sooner?	20 of 20 responded
4. What actions would help you to do your job even better? Which one action is the most important?	18 of 20 responded

Review of the responses to these questions revealed that many ideas showed up in the responses to all the questions. Given this overlap, the overall themes for these questions are summarized in the following key points:

- Staff has more work than time, being given non-permit related work to complete, with work being distributed based on facilities rather than employee availability/current workload.
- Technical Subject Matter Expert review takes a long time as SMEs are pulled to non-permitting actions, or review is being conducted by non-licensed engineers/scientists
- The level of review needed should be based on complexity of the permit (ranging from peer review, supervisor review, Technical SME review)
- Decisions need to be made based on consistent, clear guidelines that need to be established and defined.
- There needs to be a method of identifying, discussing, and resolving issues through more open communication where everyone has a voice and decisions are clearly shared and explained for future reference.

- Current permit process guidelines are outdated, unclear, or vague – need to be updated, standardized, and enhanced for clarity to ensure consistent process/procedures are followed – removing some of the guesswork in processing.
- Historical information/decisions/communication are not easily accessible, resulting in staff having to re-research facility facts, re-discuss decisions; There is a need to convert paper files to electronic files stored in a more organized tracking software for easy reference/research.
- Regulations need to be clarified with how it applies to the permitting process in layman's terms.
- Need a central, organized location (online) for resources such as templates and examples of forms, letters, memos and other tools for easy access/reference
- Need staff members whose sole responsibility is to monitor, update, and maintain procedure, regulation, decisions made, and facility files
- Emphasis is placed on meeting unrealistic schedules/turnaround times, rather than meeting quality standards which results in more work down the line when problems have to be fixed
- Staff morale is low, culture negative as staff does not feel appreciated, has no incentive
- Perceived lack of appreciation/incentives, favoritism, and the need to justify why they “fail” to meet arbitrary schedules results in a negative culture and low staff morale.
- Everyone involved in the permit process needs to be held accountable to the same achievement goals as motivation toward permit review deadlines – currently not everyone is accountable to timelines.
- Management needs to have more of a presence, clearly identifying long term goals/plans, and participating more in providing guidance to project managers, holding staff accountable for actions, and sharing in decision making.
- Need to improve communication between all those involved with the process, including having supervisors and support staff in the same location as those working on the permits
- There is a lack of formal training, more of a “learn as you go” mentality – but training is needed for support staff, permit writers, and project managers– especially on the Part B application (which could use simplification).
- Project Managers are provided with very little training before hitting the floor – suggestions to improve this process are the focus of question 3.

Question 3 focused on methods to help new project managers learn more thoroughly and more quickly so they can start doing work sooner. The responses emphasized the need for more interactive, thorough, and overall better training compared to current perception that they are given a procedure manual with instructions to read it and then hit the floor. The responses included some very specific ideas, summarized below.

- Early training should focus on how to navigate laws and regulations, and how it pertains to permit writing processes
- Provide standardized training manual, any past department communications, decision documentations, and historical permit information (hopefully digitalized at some point) to gain an understanding of the history and types of permit issues that can come up.

- Visit and work with facilities to assist in understanding entire process and encourage consistency
- Pair new Project Manager with either a peer or supervisor, after initial training, reconvene after they work through a couple of cases for any follow up questions
- There was some differences in opinion here in whether it should be a peer that knows the processes first hand but is already overbooked or a supervisor who may have more time for questions, but does not do the work on a daily basis.
- Once on the floor, start with basic/simple projects and increase complexity, utilizing supervisor/peer partner for clarifications or questions.
- Create video training modules for initial training and periodic review by current staff
- Provide annual or bi-annual refresher courses to ensure consistency of permitting process (this could apply to ALL employees)

Conclusions/Recommendations:

Since open-ended comments can easily reflect the opinion of only one respondent, they are best used to confirm and explain observations and findings that are confirmed in other review sections. Where interesting and apparently relevant suggestions are made, they are noted for further study and evaluation. With this in mind, results note confirmation with:

- A perception of a lack of resources
- A need to improve the process and update support materials
- A need for supervisors to assist with resolving work flow problems, to provide feedback, and to assist in work flow management
- A need for better communication and training.

It is recognized that making improvements in an environment of work backlog, inadequate program performance, and insufficient resources is the highest level of challenge in organizations. It is often expressed as the facetious situation of “building an airplane while flying it³⁹.” This is due to the fact that there is very little discretionary time, and that arbitrary reassignments will force some goals or tasks to be abandoned to accomplish others.

Several improvement strategies are possible though, and first among those is to find tasks that are costing more time than saving, and to focus on those with the highest net yields first. These are sometimes described as “pay now or pay later” tasks such as training, that should save time long-term even though they will definitely cost time short-term.

During this study, it was discovered that the last comprehensive program training in Permitting was conducted in early 2012, and that a basic set of training materials were developed at that time. It is therefore recommended that this training be updated and offered incrementally to all permitting employees, both to refresh training and to further identify process areas that need attention.

³⁹ An amusing video on the subject is available at: <http://www.youtube.com/watch?v=L2zqTYgcpfg>

Recommendation 7-1: As soon as Recommendations 5-1 and 5-2 are substantially addressed, Permitting should re-offer its 2012 training materials with appropriate updates. This training should be provided to all employees in 90-minute segments, in person and by video conference, on a regular twice-a-month schedule. This should be used as an opportunity to refresh training and to further identify process areas that need attention.

Another best case area for improvements is to find “improvement” tasks that individuals have to complete based on current work priorities, but that could provide additional value for others. So for example, if a worker performing a complicated Technical Review could document decision points at the same time they performed the work, they might be able to provide a first draft of a work template for the program. Closely related is asking for someone with a special interest in an area, and in which they would be willing to make an “extra effort” to improve the program on a volunteer basis. This approach would be ideally suited to implementation of Recommendation 1-2, that calls for development of a network file with templates and samples.

Recommendation 7-2: The Permit Office Manager and Supervisors should develop a list of tasks and actions called for as a part of the improvements recommended by this study, in priority and chronological order, and periodically review it with all staff, possibly at the twice-a-month training meetings. Volunteer assistance should be solicited to develop all materials, and draft products reviewed and approved by designated groups of two or three subject matter experts.

During the all-staff meeting conducted at the initiation of this study a number of permit program employees mentioned that the Permit Application Handbook was last updated in January, 2001, and was out-of-date and no longer of assistance. If management decides that such an update is a high priority, then the approach stated in Recommendation 7-2 could be used to do so. This study found no reason to believe that such a comprehensive handbook would be more helpful, however, than the development of a process flowchart with decision criteria and sign-off standards as recommended in 5-1 and 5-2.

As a last observation, it is noted that the acquisition of temporary resources to bring a program back to a current and effective operational status is sometimes helpful. So for example, Recommendation 6-4 for “catching up” the Financial Assurance Reviews might be best served doing so with contract help. Such a contractor could perhaps write program guidelines as well as catching up past work.

8) Macro-Analysis of the Permitting Process

Historical Comparison

This Chapter provides a comprehensive analysis of the time required for the Permitting Process and its specific segments, including Administrative Review, Technical Review, Public Comment, and Appeals. This study reviewed permitting data from January 1985 to May 2013, with a focus on permit processes completed in or after FY2007-2008. The focus on those completed in the most recent six years⁴⁰ was decided on so that current processing steps, technology, and resources were reflected.

A database of permit processing activity in this period was created for the analysis using records from the Department's records database, Envirostor. When possible, the most recent complete permit process for each of the facilities was used. The creation of this database was hindered by various missing dates for key activities and the appearance that multiple permit processes were occurring simultaneously with no clear distinction between the processes⁴¹. Where attribution of data to the renewal process was not possible, some records were discarded, and these facilities only provided pieces of the process (e.g. Time in Technical Review was identified, but time in Administrative Review was not discernible and therefore not used.) Overall, a total of 115 facilities were used in the database, each contributing data for at least one segment of the permitting process. Table 9 provides the number of facilities that contributed to the analysis of each segment of the process individually and overall (required start of the Administrative *and* End of Public Review to calculate the overall time).

Table 9: Frequency of Contributing Facilities

Permit Process Segment	Number of Contributing Facilities
Administrative Review	63
Technical Review	72
Public Review	105
Overall Process	101

In addition to documenting dates of key permitting activities, the database documented basic demographic information about each facility including permit authority, facility type, size, and status.

⁴⁰ The recent time period includes the last 5 complete fiscal years and any information that was available for FY12-13 at the time of the study (not a complete years' worth of data) resulting in 5 to 6 years' data.

⁴¹ It is believed that the multiple entries were the result of permit modifications, partial closures and similar activities that were processed in parallel during a permit renewal.

Historic Trends in Permit Processing Time

The first component of the macro-analysis reviewed whether permit processing time has been decreasing, increasing, or has been consistent over time. This was assessed by breaking the permit records from approximately the last 30 years into three groups, as depicted in Table 10.

Table 10: Historical Time Period Cut-offs

	Time Period	Age of Permits	Number of Contributing Facilities
1	Permits completed in or before FY 2002	Completed more than 10 years ago	17
2	Permits completed between FY's 2003 and 2007	Completed 6 to 10 years ago	41
3	Permits completed between FY's 2008 and most of 2013	Completed in last 5 to 6 years	54

The boundary of years for these analytic periods was somewhat arbitrary, but was selected to depict the first years of DTSC operation, the period up to the Permit Process Team effort (2007-2009), and the period since the Permit Process Team effort. It was assumed that through this method it could be objectively determined whether the Permit Process Team effort had resulted in any permanent change in permit processing, and if so, how much.

It must also be noted that since all desired benchmark dates were not available in EnviroStor, that some variation in the start and stop for each major process segment was required. Because of the need to have a uniform analytic method to account for missing benchmark dates, the process segment start- and stop-points were defined using the following rules.

- The start of the permit process and Administrative review period was the earlier date of either the receipt of the Part B application or the expiration of the prior permit.
- The end of the Administrative Review and start of Technical Review was the earlier date of either the submission of the Administrative Completion letter, or issuance of the first Notice of Deficiency.
- The end of the Technical Review and start of Public Review was the earlier date of either the documentation of Final Part A/B or submission of the Technical Completion letter.
- The end of the Public Review period and permit process was the earlier date of either the documented permit completion or the effective date of the new permit.

The average number of days spent processing permits from start to finish, as well as within the Administrative, Technical, and Public Review periods individually was calculated for the permits completed within each time period. The results are presented Table 11, showing improvement across all review periods between the first and second time periods, but only in the Administrative and Public Review periods moving from the second to the most current time period. The Technical

review, and correspondingly the Overall permitting process, increased significantly between the second and current time period.

Table 11: Overall Average Permit Processing Time (in days)

	Administrative Review	Technical Review	Public Review	Overall Permit Process	Overall Permit Process Range	Days in Administrative Extension	Percent of Permits over 5 years
1. Completed in or before FY 01/02	723 days	839 days	538 days	1,806 days (5 years)	383 to 3,747 days	1,222 days	5 of 12 (42%)
2. Completed between FY 02-03 and 06-07	285 days	568 days	356 days	1,151 days (3.2 years)	188 to 3,607 days	879 days	6 of 37 (16%)
3. Completed between FY 07-08 and most of 12/13	176 days	990 days	195 days	1,564 days (4.3 years)	294 to 5,866 days	1,294 days	16 of 52 (31%)

Please note that the reported days in the “Overall Permit Process” average reported above are not the total of the average of each preceding segment in that group (row). This is the result of the fact that whenever reviewed process segments did not include a defined begin and end point in the data record, the entire segment was disregarded, even in cases where the total elapsed time from the beginning to the ending point for the **entire process** was retained. So there is variation in the number of segments used to compute the average time in each column. This is explained further in relation to introduction of Table 12, on page 77.

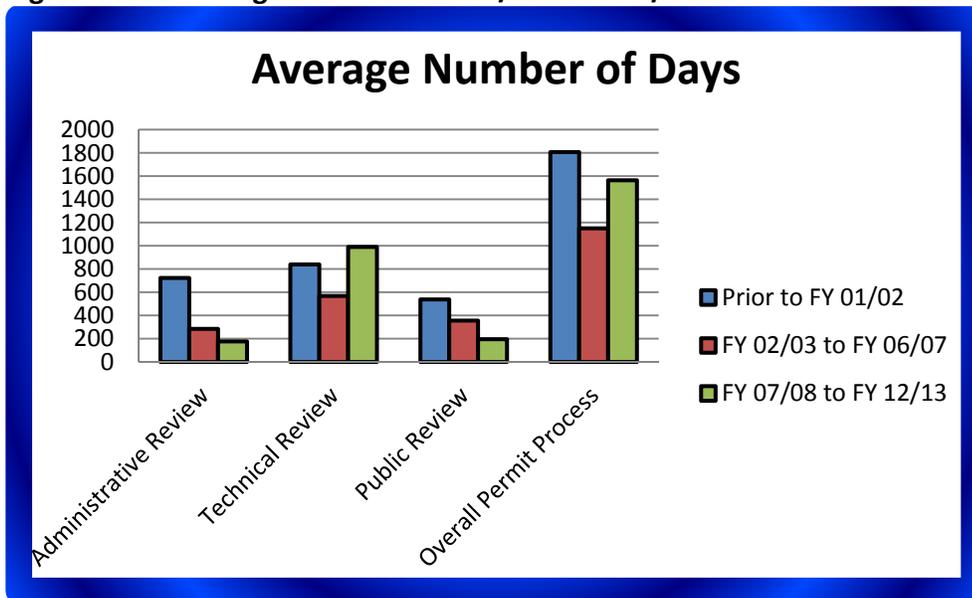
In addition to overall processing time, the length of time in administrative extension (time between the existing permit expiring and the new permit taking effect) and the number of completed permits that took longer than 5 years to process was examined. As can be seen in the last two columns, there was improvement between the first and second time periods, and a decline in performance in the third time period.

- **Findings:** There has been progressive improvement in the Administrative and Public review periods, but returns to longer processing times in the Technical review period, and correspondingly in the overall permit processing time, after initial improvements during the second time period. Similarly, there was improvement followed by a decline in performance for time spent in Administrative Extension and in the number of permits taking longer than 5 years to process. Although the most recent period shows an average processing time of 4.3 years per permit, which is an improvement over the 5.0 years for those completed prior to

FY2003, it is also a step back from the average processing time of 3.2 years in the period from FY2003 to FY2007. While a specific cause and effect relationship was not established, this study believes the strongest correlating factors for the negative changes from the second to the third period is the dramatic reduction in staffing in FY2009, combined with the abandonment of a clear, predictable and traditional organizational structure for permitting in FY2008. These two factors are also believed to be the most likely root causes for the current lack of support for Technical Review, and the resultant measured 74% increase in Technical Review period from the second to the third (current) time period.

Figure 9 shows the reduction in processing time across the three time periods, with smaller changes in each individual review period, and a more noticeable change within the overall processing time.

Figure 9: Processing time from Pre 02/03 to 2012/2013



Analysis of Current Segment Processing Time

The next portion of this study analyzed the permit process segment processing time in the most recent period. With the historical time period-based analysis depicting an increase in processing time, the macro-analysis turned to a more in-depth evaluation of the most recent period. A subset of the database utilizing 54 facility permit processes completed in FY 2008 or later was created for the remainder of the macro-analyses. This database was created with the assumption that the records are representative of the current permit process with the aforementioned limitations. A demographic summary of the types of facilities in this subset is summarized in Appendix S.

The time spent in the administrative, technical, and public review periods, and the overall processing time was examined overall, as well as by permitting authority and facility type, using the same definitions of the review periods as above. The average number of days to process permits overall

and within each respective review period for the most current time period is presented in Table 12. It must be observed that the total of the averages of the process segments in each line do not add to the total average processing time. This is the result of the fact that whenever defined process segments did not have a defined begin and end point, the entire segment was disregarded. So for example in the RCRA permit analysis, there were 33 permit renewal records (“N=33”) that were complete and able to be used to determine the length of processing from beginning to end, while only 24 had recorded milestones that allowed computation of the Administrative Review period (i.e. 9 had the Administrative start date, but not the Administrative end date).⁴²

Table 12: Average Permit Processing times in days for 2007-2013

	Administrative Review	Technical Review	Public Review	Overall Permit Process	
Overall	176 (N = 40)	990 (N = 49)	195 (N = 53)	1,564 (N = 52)	4.3 years
RCRA	242 (N = 24)	1,046 (N = 29)	135 (N = 33)	1,811 (N = 33)	5.0 years
Standard	78 (N = 16)	905 (N = 19)	301 (N = 19)	1,134 (N = 19)	3.1 years
Treatment Facility	150 (N = 14)	1,149 (N = 14)	177 (N = 16)	2,177 (N = 16)	6.0 years
Storage/Transfer Facility	236 (N = 15)	757 (N = 18)	295 (N = 18)	1,208 (N = 19)	3.3 years
Land Disposal	N/A	N/A	N/A	N/A	N/A
Post Closure	138 (N = 10)	1,182 (N = 14)	112 (N = 16)	1,490 (N = 15)	4.1 years
Land Disposal	N/A	N/A	N/A	N/A	N/A
Large Post Closure	44 (N = 7)	1,292 (N = 11)	102 (N = 12)	1,646 (N = 11)	4.5 years
Large Storage	450 (N = 2)	289 (N = 1)	102 (N = 2)	2,669 (N = 2)	7.3 years
Large Treatment	129 (N = 6)	1,077 (N = 6)	171 (N = 7)	2,375 (N = 7)	6.5 years
Medium Post-closure	90 (N = 2)	486 (N = 2)	132 (N = 3)	604 (N = 3)	1.7 years
Mini Storage	113 (N = 1)	272 (N = 1)	91 (N = 1)	476 (N = 1)	1.3 years
Small Post Closure	447 (N = 2)	937 (N = 2)	178 (N = 2)	1,562 (N = 2)	4.3 years
Small Storage	595 (N = 4)	662 (N = 5)	163 (N = 5)	1,612 (N = 5)	4.4 years
Small Treatment	131 (N = 2)	1,375 (N = 3)	152 (N = 3)	2,171 (N = 3)	5.9 years
Standardized Series A	68 (N = 4)	1,137 (N = 4)	131 (N = 4)	1,336 (N = 4)	3.7 years
Standardized Series B	133 (N = 6)	1,040 (N = 7)	604 (N = 7)	1,473 (N = 7)	4.0 years
Standardized Series C	40 (N = 3)	704 (N = 5)	118 (N = 5)	720 (N = 5)	2.0 years
Standardized Series Small Quantity Series C	53 (N = 1)	678 (N = 1)	99 (N = 1)	830 (N = 1)	2.3 years

Note: Total N in subgroups does not always equal Overall N due to 3 facilities missing demographics

⁴² No “latent period” is identified in this analysis (as noted on pages 84- 85 because the Public Review was identified to begin at completion of the Technical Review, and so this measure is lost in this analytic approach.

Separating permits by authority type, the RCRA permits took three times as long during the Administrative review, slightly longer in the Technical review, but notably less time during the Public Review periods compared to the Standard permits. The RCRA permits took on average, 2 years longer to process than the Standard permits.

Separating permits by facility type revealed inconsistent patterns with the Storage/Transfer facilities taking the longest in the Administrative and Public Review periods, but the shortest amount of time in the Technical and overall periods. The Post Closure facilities revealed the opposite pattern with the longest average time in the Technical Review, but the shortest in the Administrative and Public Review periods. The Treatment facilities, which had average Administrative, Technical, and Public Review durations in between the Storage/Transfer and Post Closure facilities durations, ended up with the longest overall permitting process times.

There were no permits completed in this time frame for Land Disposal facilities.

Separating permits by facility size, the Small Post Closure, and both Large and Small Storage facilities took notably longer than the other size distinctions in the Administrative Review. The Technical Review Period was the longest period for all except for the Large Storage facility, with the Small Treatment and Large Post Closure taking the longest time to process on average. The Public Review Period was fairly consistent, with the exception of the Standardized Series B facilities, which took approximately 4 to 5 times as long as the other billing sizes.

Overall, the permitting process took approximately 4.3 years from start to finish, ranging from 1.3 (Mini-Storage) to 7.3 (Large Storage) years once broken down into different facility billing sizes. Table 13 presents average permit completion time from largest to smallest, broken down by permit authority, facility type, and facility billing size.

- **Finding:** The largest share of total permitting time is taken in Technical Review, and that portion of the review comprises 2.7 years by itself, and 63% of the total processing time. This is the greatest potential area for processing time improvement.

Table 13: Average Permit Completion Times

Facility	Average Permit Completion Time
Overall	4.3 years (1,564 days)
By Authority	
RCRA Authority	5.0 years (1,811 days)
Standard Authority	3.1 years (1,134 days)
By Facility Type:	
Treatment Facility	6.0 years (2,177 days)
Post Closure	4.1 years (1,490 days)
Storage/Transfer Facility	3.3 years (1,208 days)
By Facility Billing Size:	
Large Storage Facility	7.3 years (2,669 days)
Large Treatment Facility	6.5 years (2,375 days)
Small Treatment Facility	5.9 years (2,171 days)
Large Post Closure Facility	4.5 years (1,646 days)
Small Storage Facility	4.4 years (1,612 days)
Small Post Closure Facility	4.3 years (1,562 days)
Standardized Series B	4.0 years (1,473 days)
Standardized Series A	3.7 years (1,336 days)
Standardized Series Small Quantity C	2.3 years (830 days)
Standardized Series C	2.0 years (720 days)
Medium Post Closure	1.7 years (604 days)
Mini-Storage	1.3 years (476 days)

* Insufficient data to include Land Disposals in Facility Type or Billing Size

The total average permit processing time was examined to determine if the averages above were consistent across the years within this time period. Table 14 shows the number of permits completed each year, along with the average duration in years it took to process these permits from the start of the administrative review until the end of the permit process, as defined above.

Table 14: Average Time to Process Permits Completed in 2007 to 2012.

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Average Time in Years to Complete	3.6	3.5	2.6	9.8	6.0	4.4
Number Permits Completed	14	16	10	5	6	3

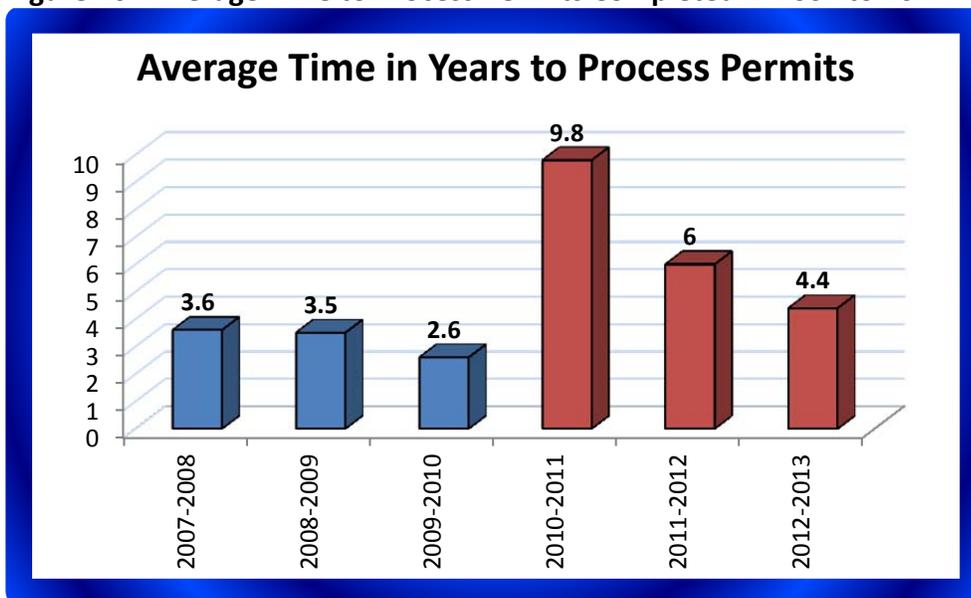
The table below shows the time to process data reflected by calendar year rather than by Fiscal Year as noted above. These results were found to be comparable to previous Department reports regarding time to process permits, and were validated in this manner.

Table 15: Average Time to Process Permits by Calendar Year

	2007	2008	2009	2010	2011	2012
Average Time in Years to Complete	3.1	4.1	2.5	5.1	7.1	6.3
Number Permits Completed	14	13	12	8	6	5

- **Findings:** As can be seen in Table 14 and Figure 10, the average time to process permits completed from 2008 through 2010 fluctuated between 2 and 4 years, with the lowest average processing time of 2.6 years occurring in fiscal year 2010. While a specific cause and effect relationship was not established, this study believes that the drop in average time to process permits dropped from 2007 through 2010 as a result of the implementation of the permit processing team. This team focused only on the permits it judged as easiest to process quickly⁴³, in order to quickly reduce the number of facilities operating under expired permits. The permits completed in 2010 through 2012 took noticeably longer jumping as high as 9.8 years as well as fewer permits being completed per year. It is believed that the large increase afterwards was the result of returning to the remaining more difficult pending permit actions.

Figure 10: Average Time to Process Permits Completed in 2007 to 2012



Permit Process – Segment Review and Overall Analysis

In efforts to further understand the permit process and identify any potential trouble areas, each review period defined above, as well as the permitting process from start to finish, was more thoroughly studied using the subset of data focusing on the permits completed in FY's 2008 through parts of FY 2013. The dates provided by the Department (Envirostor) were used to create numeric measurements to objectively assess the overall functioning of the permitting process. Each of the measurements was assessed for outliers, or extreme values, that would disproportionally influence the averages and portray an unrealistic assessment of that part of the process. A full list of the key

⁴³ Three Department subject matter experts offered the point of view that the Team was allowed to pick those permits that were believed easiest and quickest to process.

dates⁴⁴ and measurements, formulas to obtain these measurements, and any removed outliers from the calculated measurements is available in Appendix T.

The following sections analyze the time required for each permit process segment, including the Administrative Review, Technical Review, Public Review and Comment, and Appeals process. Differences in processing time are calculated for the permit type (RCRA or Standard) and by the Facility Type. It was impractical to break the information by Facility Size at this level as the information would be potentially misrepresented because the groups would be too small and more reflective of individual facilities than general facility sizes.

Overall this analysis discovered that the following average times for processing:

- Administrative Review – 176 days
- Technical Review – 990 days
- Public Review Period – 195 days

Differences and variances as noted above are explained below. In addition, where possible, data on the performance or timeliness of important sub-components is provided.

Administrative Review Period:

The first direct action taken in a permit renewal process is the issuance of the Call-in letter to remind facilities that their permit is up for renewal. This step is more preliminary and not measured as part of the Administrative Review timeframe, but it is necessary that this step be completed in a timely manner so it is assessed within this section. The three timeframes analyzed within the Administrative Review are presented in Table 16, with the range and average processing time overall and for each of the sub-groupings. The three timeframes are as follows.

1. *When was the Call-in Letter sent* – measured the amount of time before (or after) the existing permit expiration that the call-in letter was sent.
2. *When was Part B Application received* – measured the amount of time before (or after) the existing permit expiration that the Part B Application was received.
3. *Length of Administrative Review* – measured the amount of time from the Start of the Administrative review (either receipt of Part B or expiration of prior permit) to the Finish (completion of the Administrative Completion Letter or issuance of first NOD if letter was not available).

⁴⁴ Overall, approximately 85% of key activity dates were documented (after removing the appeal and NOD dates as they do not apply to all facilities), with the Final Part A/B, permit completion date, public comment open and close dates, and the new permit effective and expiration dates being documented 94% of the time or greater while the dates for the Technical Completion Letter and when the Public Hearing was held being documented only 70% and 50% of the time, respectively.

Table 16: Administrative Review Summary by Permit Type

		When was Call-in Letter sent in relation to permit expiration date?	When was Part B Application received in relation to permit expiration date?	Length of Administrative Review
OVERALL		<i>M</i> = 422 days prior (684 days prior to 24 days after expiration)	<i>M</i> = 227 days prior (378 days prior to 26 days after expiration)	<i>M</i> = 176 days (<i>SD</i> = 278) (3 to 957 days)
Permit Authority	RCRA	<i>M</i> = 328 days prior (684 days prior to 24 days after expiration)	<i>M</i> = 188 days prior (40 – 312 days prior to expiration)	<i>M</i> = 242 days (<i>SD</i> = 321) (7 to 957 days)
	Standard	<i>M</i> = 510 days prior (414 - 539 days prior to expiration)	<i>M</i> = 278 days prior (378 days prior to 26 days after expiration)	<i>M</i> = 78 days (<i>SD</i> = 164) (3 to 675 days)
Facility Type	Treatment Facility	<i>M</i> = 417 days prior (553 days prior to 24 days after expiration)	<i>M</i> = 260 days prior (93 – 378 days prior to expiration)	<i>M</i> = 150 days (<i>SD</i> = 220) (3 to 808 days)
	Storage/ Transfer Facility	<i>M</i> = 437 days prior (182 - 520 days prior to expiration)	<i>M</i> = 220 days prior (365 days prior to 26 days after expiration)	<i>M</i> = 236 days (<i>SD</i> = 343) (6 to 957 days)
	Land Disposal	N/A	N/A	N/A
	Post Closure	<i>M</i> = 382 days prior (211 - 684 days prior to expiration)	<i>M</i> = 179 days prior (145 – 219 days prior to expiration)	<i>M</i> = 138 days (<i>SD</i> = 268) (7 to 887 days)

In order to encourage timely completion of the permit process, it is regulated that the call-in letter should be sent to the facility no later than 18 months (540 days) prior to the expiration of the current permit. The provided records showed that the call in letter was sent as early as 684 days prior to current permit expiration (1.9 years) to as late as 24 days after the permit expired, averaging out at 422 days prior to the permit expiration – 78% of the time required by policy. This allows slightly more than a year for the facility to submit the application and the permitting staff to complete the entire permit process.

The facility is then responsible for submitting the Part B application at least 30 days before the existing permit expires. Records indicate that the Part B application was received as early as 378 days before the permit expires (approximately 1 year) to 26 days after the permit expires; averaging out at 227 days before the permit expires. This shows that most permittees are very early in submitting the required application and allow slightly more than 7.5 months for the permit process to be completed before the permit expires. Industry standards suggest the Part B application to be submitted at least 180 days prior to the permit expiration, which would allow up to an additional 5 months for the permitting staff to process the application. Looking at the permits that were completed in or after FY 2008, two-thirds (67%) of the permittees submitted their application earlier than 180 days prior to permit expiration, and with the exception of the one facility that submitted it after the permit expiration date, the remainder (30%) submitted their application between 30 and 180 days prior to

the permit expiration. Looking at the average submission time, all of the facility subtypes submitted the Part B application before the technical due date.

The expectation is that the Administrative Completion letter should be submitted within 60 days of the receipt of the Part B application, therefore the average processing time should be around that 60 day mark. The time spent on the call-in letters and waiting for Part B application to arrive impacts completion of the permit process before the existing permit expires, but does not factor into the Administrative Review segment. Records indicate that the Administrative Completion letter was submitted as early as 3 days and as long as 957 days after receiving the application (2.6 years), averaging out at 176 days (approximately 6 months after receiving the application – three times the expected timeframe). Since this analysis presented performance below the expectations, further examination between subtypes was done. As can be seen in Table 16, the RCRA facilities took notably longer (almost 8 months) while the Standard authority facilities took just slightly longer than the expectations (2.6 months). However, looking at facility types, the averages are larger ranging from 2 to 4 times the expected timeframe, indicative of the influence of the RCRA permits within each group.

The Administrative Review could potentially be improved by implementing the following:

- 1) Ensure that call-in letters are uniformly sent at least 18 months prior to the current permit's expiration. This is currently included in the proposed process flowchart, referenced at recommendation 5-1.
- 2) Seek a change in requirements making the Part B Application due 180 days prior to the expiration of the existing permit. Given that the current guidelines mandate that Permitting issues its Completion of the Administrative Review Letter within 60 days after receipt of a complete Part B Application, there is insufficient time for initial processing prior to most permit renewals. This almost guarantees that the permit process will not be completed before the existing permit expires. Based on current records, this would not inconvenience the facilities as most of them already submit their application prior to the 180 day deadline.

Recommendation 8-1: The Department should research whether and how to change its requirements to make the Part B Application due 180 days prior to the expiration of the existing permit. This objective and purpose should be reviewed and affirmed by Cal EPA Secretariat, and if agreed to, recommended to the appropriate Legislative Committees for statutory revision.

Technical Review:

The Technical Review period begins where the Administrative Review period ends. Although, this is the period where a majority of the time is spent, there were only two timeframes assessed. These two timeframes are presented in Table 17, with the range and average processing time overall and for each of the subgroupings. The two timeframes assessed were as follows.

1. *How long did the Technical review segment take from Start to Finish* – measured how long the process took from the end of the Administrative Review to the earliest date between completion of the Final Part A/B or the Technical Review completion letter.
2. *Was there a latent period between the Technical and Public Review* – measured how much, if any, time was lapsing between Technical Completion and Public Comment (Begin).

Table 17: Technical Review Period by Permit Type

		How long did the Technical Review segment take from Start to Finish?	Was there a latent period between the Technical and Public Review?
OVERALL		<i>M</i> = 990 days (<i>SD</i> = 803) (272 to 3,423 days)	<i>M</i> = 37 days (<i>SD</i> = 74) (0 to 348 days)
Permit Authority	RCRA	<i>M</i> = 1,046 days (<i>SD</i> = 850) (272 to 3,423 days)	<i>M</i> = 40 days (<i>SD</i> = 68) (0 to 266 days)
	Standard	<i>M</i> = 905 days (<i>SD</i> = 764) (476 to 3,298 days)	<i>M</i> = 35 days (<i>SD</i> = 88) (0 to 348 days)
Facility Type	Treatment Facility	<i>M</i> = 1,149 days (<i>SD</i> = 791) (526 to 2,750 days)	<i>M</i> = 73 days (<i>SD</i> = 114) (1 to 348 days)
	Storage/ Transfer Facility	<i>M</i> = 757 days (<i>SD</i> = 677) (272 to 3,298 days)	<i>M</i> = 34 days (<i>SD</i> = 56) (1 to 219 days)
	Land Disposal	N/A	N/A
	Post Closure	<i>M</i> = 1,182 days (<i>SD</i> = 999) (272 to 3,423 days)	<i>M</i> = 10 days (<i>SD</i> = 10) (0 to 39 days)

The Technical Review period was identified as housing many of the issues during the Employee and Stakeholder Attitude assessments in terms of unclear or inconsistent guidelines and recordkeeping. There were no identified guidelines for how long the Technical Review should take, but the provided records identified the process as taking anywhere from 272 days to 9.4 years (3,423 days), averaging out to approximately 2.7 years. Breaking the facilities into the subtypes, the RCRA authorized facilities took approximately 4.5 months longer than the Standard authorized and the Post Closure and Treatment facilities (3.2 years each) took longer than the Storage/Transfer facilities (2.1 years), which is opposite of what was seen in the Administrative Review period.

It is a conclusion of this study that the complexity and uncertainty regarding technical review should be directly addressed through adoption of recommendations 5-1, 5-2, 5-5, 5-6 and 5-7.

Once the Technical Review is complete, the permit decision should be drafted and the project fact sheet should be completed within about two weeks, or less. While it is possible that very short delays are entirely explained by the necessary preparation of a project “fact sheet” and related materials, many project managers have noted that even these activities are typically complete prior to final submission of the Technical Review package for legal review. So there is no reason for a long period to elapse between the completion of Technical Review and “Public Comment (Begin)”. The records indicated that the draft permit was posted anywhere from the same day as Technical Completion to almost one year later (348 days), with the average posting date being slightly more than 1 month after the Technical Review was completed (37 days). There was no notable difference between RCRA and non-RCRA authorized facilities, but the Treatment facility type had a delay of just

over 2 months (73 days), while the Post-Closure facilities had almost no delay (10 days) between the two review processes.

It is a conclusion of this study that these unplanned delays are the result of behind the scenes discussions within the Department regarding completion of CEQA review and completion of the Public Participation plan. Recommendation 5-1 should move both issues to the start of the permit process, largely eliminating these delays.

Part of the Technical Review process includes the issuance of Notice of Deficiencies (NOD), which was not included in the table above since it only applies to facilities that need to add or correct information, or address deficiencies in their application. The analysis for the NODs involved identifying the ratio of facilities receiving NOD's and the total number of NOD's documented overall, and within each authority and facility type as seen in Table 18. When reviewing the records, if a response to a NOD was received and there was no corresponding NOD documented, a NOD was entered with the date of 1/1/yyyy with the year that the response was received. If a NOD was missing within a line of NOD's (i.e. – NOD 1 and 3 were documented, but NOD 2 was missing) – a fake date was input as a place holder to obtain the most accurate count of NODs as possible.

In doing so we can see that 87.0% of all permit applications received one Notice of Deficiency, while 38.9% received two, and only 16.7% received three.

Table 18: NOD Frequency by Facility Authority, Type, and Size

		NOD 1	NOD 2	NOD 3
OVERALL		47/54 = 87.0%	21/54 = 38.9%	9/54 = 16.7%
Permit Authority	RCRA	28/34 = 82.4%	15/34 = 44.1%	7/34 = 20.6%
	Standard	18/19 = 94.7%	6/19 = 31.6%	2/19 = 10.5%
Facility Type	Treatment Facility	16/16 = 100%	7/16 = 43.8%	4/16 = 25%
	Storage/ Transfer Facility	18/21 = 85.7%	5/21 = 23.8%	1/21 = 4.8%
	Land Disposal	N/A	N/A	N/A
	Post Closure	12/16 = 75.0%	9/16 = 56.3%	4/16 = 25.0%

Note: One First NOD that did not have facility type identified

The Standard authorized permittees received a higher incidence of first NOD's, but the RCRA authorized permittees received higher incidences of both second and third NOD's, with 20% of facilities requiring a third NOD, compared to only 10% of the Standard facilities. The Treatment (100%), Storage/Transfer (86%), and Post Closure (75%) facilities all received high incidences of first NOD's. The Treatment and Post Closure facilities decreased at approximately the same rate with 25% of facilities in each type receiving a third NOD compared to approximately 5% for the Storage/Transfer facilities. This is likely a reflection of their greater possible threat to health and

human safety than transfer facilities. It is also perhaps a reflection of the perceived greater public scrutiny they will receive.

In addition to identifying overall patterns in the need for NODs, it is useful to identify the facilities that require frequent NODs to assist in project planning. These facilities may require more employee hours or be more challenging and require more expertise. Table 19 shows the top 5 facilities based on the number of NODs issued and documented since January, 2007, all of which received all three NODs during their most recent permit renewal process.

Table 19: Facilities with the most frequent NODs

Facility Name	Authority	Type	Size	Total NODs	NOD 1	NOD 2	NOD 3
Ducommun Aerostructures	RCRA	Post Closure	Large Post Closure	3	1	1	1
P Kay Metal Inc.	STATE	Treatment	Standardized Series B	3	1	1	1
San Diego Gas & Electric	STATE	Storage/Transfer	Standardized Series A	3	1	1	1
E I Dupont De Nemours & C	RCRA	Post Closure	Large Post Closure	3	1	1	1
Tesoro Refining and Marketing	RCRA	Post Closure	Large Post Closure	3	1	1	1

The NODS from the top 5 above account for approximately 19.5% of the NOD’s issued after January, 2007 with the RCRA Large Post-Closure Facilities dominating the list.

- **Finding:** It is a conclusion of this study that both Permitting staff and the interested public are unclear about the intended meaning and use of Notices of Deficiency, and the legal requirements for use, and for action after issuance of three. This finding underscores the importance of Recommendation 6-2, noted earlier in this study, and calling for categorizing NOD’s that should be prejudicial from those that should not.

Public Comment/Review:

The Public Comment Review segment begins where the Technical Review period ended. The time lapsed between the Technical Review and the Public Comment was assessed as part of the Technical review and this segment focuses on four measurable time frames, as described below and presented in Table 20.

1. *How long after the public posting was a Public Hearing/Meeting held* – measured if public meetings were held at least 30 days after public posting.
2. *How long was the Posting up for Public Review* – measured the length of time a permit was up for public review and assessed if met the minimum requirement of 45 days.
3. *How long after Closing Comments was the Permit Completed* – measures length of time between closing the public comment period and documenting the permit is completed.
4. *How long did the Public Review segment take from Start to Finish* – measured how long the process took from the end of the Technical Review to the close of the Public Comment period.

Table 20: Key Measurements in Public Review Period

		How long after Posting was a Public Hearing/ Meeting held?	How long was the Posting up for Public Review?	How long after Closing comments was the Permit Completed?	How long did the Public review segment take from Start to Finish?
OVERALL		<i>M</i> = 30 days (<i>SD</i> = 10) (0 to 51 days)	<i>M</i> = 46 days (<i>SD</i> = 10) (0 to 95 days)	<i>M</i> = 56 days (<i>SD</i> = 47) (5 to 181 days)	<i>M</i> = 195 days (<i>SD</i> = 279) (51 to 1,536 days)
Permit Authority	RCRA	<i>M</i> = 32 days (<i>SD</i> = 8) (17 to 51 days)	<i>M</i> = 48 days (<i>SD</i> = 9) (44 to 95 days)	<i>M</i> = 45 days (<i>SD</i> = 39) (5 to 148 days)	<i>M</i> = 135 days (<i>SD</i> = 74) (51 to 331 days)
	Standard	<i>M</i> = 26 days (<i>SD</i> = 12) (0 to 36 days)	<i>M</i> = 44 days (<i>SD</i> = 11) (0 to 55 days)	<i>M</i> = 80 days (<i>SD</i> = 54) (16 to 181 days)	<i>M</i> = 301 days (<i>SD</i> = 443) (64 to 1,536 days)
Facility Type	Treatment Facility	<i>M</i> = 34 days (<i>SD</i> = 5) (29 to 41 days)	<i>M</i> = 46 days (<i>SD</i> = 3) (44 to 55 days)	<i>M</i> = 69 days (<i>SD</i> = 50) (11 to 181 days)	<i>M</i> = 177 days (<i>SD</i> = 120) (62 to 487 days)
	Storage/ Transfer Facility	<i>M</i> = 24 days (<i>SD</i> = 12) (0 to 36 days)	<i>M</i> = 43 days (<i>SD</i> = 11) (0 to 48 days)	<i>M</i> = 55 days (<i>SD</i> = 54) (8 to 179 days)	<i>M</i> = 295 days (<i>SD</i> = 453) (64 to 1,536 days)
	Land Disposal	N/A	N/A	N/A	N/A
	Post Closure	<i>M</i> = 33 days (<i>SD</i> = 10) (19 to 51 days)	<i>M</i> = 50 days (<i>SD</i> = 13) (44 to 95 days)	<i>M</i> = 48 days (<i>SD</i> = 39) (5 to 127 days)	<i>M</i> = 112 days (<i>SD</i> = 48) (51 to 194 days)

The purpose of posting the draft permit decision for public review is to allow the public to voice any concerns or questions. The draft permit decision should be posted for a minimum of 45 days with a public meeting to discuss the permit no less than 30 days after the draft permit is posted. However, records indicate that the permits were posted from 0 to 95 days, with an average of 46 days, with the public meeting being held anywhere from 0 to 51 days, with an average of 30 days, after posting. Although the averages meet the requirements, the ranges for both indicate that some facilities have no or abbreviated public review periods, which limits the ability of the public to review the permit decision, provide feedback, or ask questions.

The RCRA authorized permits met or slightly exceeded the expected time frames for the public hearing and the length of time open for public comment, while the Standard permits were slightly below on both. Similarly, the Post Closure and Treatment facility permits met both standards, while the Storage/Transfer facilities were slightly below on both. There was not sufficient data to assess Land Disposals.

- **Finding:** The EnviroStor record reviewed as a part of this study indicates that in some cases the public is not getting 45 days for public comment as requires by 22 CCR Section 66271.9(b)(1). It is not clear from the analysis whether this apparent non-conformance is the result of inaccurate data recordation, or if the on-conforming period was precedent to or subsequent to a conforming period⁴⁵. In any case, Recommendation 9-1 instructs Permitting to ensure entry of benchmark operational measures, including those relevant to the public comment period, and Recommendation 1-1 instructs Permitting Supervisors to ensure accurate entry of key dates, and to take responsibility for meeting process requirements. If followed, any misreporting or accidental non-conformance will be eliminated.

There is no set standard for how quickly the permitting staff has to complete the permit once the public comment period ends, but based on these records, there is approximately a two month delay between the end of the public comment and the finalization of the permit. The Standard permits (80 days) take almost twice as long to finalize as the RCRA permits (45 days), but the differences are not as different when breaking down the facility types where the Treatment facilities take approximately 15 days longer than the Storage/Transfer facilities and 20 days longer than the Post Closure Facilities.

Although there is no set minimum time frame for the overall public comment period, due to the above mentioned regulations, it needs to be at least 45 days. The records indicated a range from the minimal 51 days to just over a four years (1,536 days), averaging out to approximately 6.5 months (195 days). However, this range includes the time from the completion of the Technical Review but prior to the posting of the draft permit and any time after the public comment period closed and permitting staff is finalizing the permit which would include final approval and documentation from other divisions. Similar to the prior measurement, the Standard facilities took notably longer (301 days) compared to the RCRA facilities (135 days), The Storage and Transfer facilities also had a longer public review period than the Treatment or Post Closure facilities. The Standard and Storage/Transfer facilities had Public Review periods that were 2 to 3 times as long as the review periods for the RCRA authority, and other facility types. This is a direct reflection of facility records that had 3 to 4 years between closing the public comment and finalizing the permit. For example, Evergreen Oil (Davis) closed public comment on 8/1/08, had an appeal decision made on 7/20/09, but the permit was not documented as completed until 10/2/12, and not effective until 11/6/12.

Extensive delays in the permitting process can be remedied through the implementation of better processes and decision criteria (Recommendation 5-1) and confusion on these documented delays can be minimized through detailed documentation in Envirostor (Recommendation 1-1).

⁴⁵ EnviroStor only allows for a single public comment period entry and field audits found at least one instance where a non-conforming public comment period was “re-noticed” to ensure that it conformed with legal requirements.

Appeals Process Review:

The appeals process had significantly fewer data points and so the results are presented for the department overall and by authority type only. The facility type was just a duplicate of the authority type with one data point for an RCRA Post Closure and a couple data points for Standard Storage/Transfer facilities. The appeals process begins with the receipt of an appeal and ends once a decision is made. Table 21 breaks down the appeals process into two measurable time frames, and provides the range and average processing time overall and for each of the sub-groupings. The two questions are as follows.

1. How quickly were appeals received – measured how many days after the final permit was posted that an appeal was received.
2. How quickly were decisions made regarding appeals – measured how many days after receiving the appeal was a decision/response provided.

Table 21: Summary of Appeals and Decision time frames

		How quickly were appeals received?	How quickly were decisions made on appeals?
OVERALL		M = 31 days (30 to 31 days)	M = 284 days (189 to 566 days)
Permit Authority	RCRA	M = 31 days	M = 189 days
	Standard	M = 31 days (30 to 31 days)	M = 308 days (198 to 566 days)

Appeals can be filed only on information that changed between the draft and the final permit, and it must be filed within 30 days of the final permit posting. Records indicate that appeals were typically received or recorded on the final day of the appeals window. There were no identified guidelines pertaining to how fast an appeal must be answered, and records show that it took anywhere from 189 to 566 days (6 months to 1.5 years) to respond. Decisions on appeals took about 3.5 months longer for Standard authorized permits than RCRA authorized permits in these documented instances, but an overall generalization cannot be confirmed with so few data points.

The Appeals process could be improved through the following implementations.

1. Enforce the 30 day appeals limit so that staff does not get tied up in appeals that were not timely. *(Findings do not show that this is currently an issue, but as a principle, it could avoid issues in the future.)*
2. Set guidelines or regulations to respond within a reasonable timeframe and enforce those timelines to avoid the potential of having a permit expire while the appeal waits to be decided upon.

Overall Process Review:

The overall process started with the earlier of either the expiration of the prior permit or the receipt of the Part B application and concluded after the Public Comment period with the documentation of the permit completion, but prior to the Appeals process. Table 22 breaks down the overall process into three measurable time frames, and provides the range and average processing time overall and for each of the sub-groupings. The three timeframes are as follows.

1. How long was the Permit Process from Administrative Start to Permit Completion – measured the length of time it took from the earlier date of either the expiration of the prior permit or receipt of Part B application until the earliest of either permit staff documenting the permit was completed or the new permit becoming effective.
2. Was there a latent period between Permit Completion and Permit effective dates – measured if there was time passing after permit was completed but before it became effective.
3. How long was the permit in Administrative extension – measured the number of days the facility permit was in an expired status before the new permit took effect.

Table 22: Summary of Overall Permitting Process time frames

		How long was the Permit process from Admin. Start to Permit Completion?	Was there a latent period between the Permit Completion and Permit Effective Dates?	How long was the permit in Administrative extension?
OVERALL		M = 4.3 years (M =1,564 days; SD=1,275) (294 to 5,866 days)	M = 29 days (SD = 49) (0 to 290 days)	M = 3.6 years (M =1,294 days; SD =1,270) (199 to 4,719 days)
Permit Authority	RCRA	M = 5.0 years (M =1,811 days; SD=1,451) (294 to 5,866 days)	M = 18 days (SD = 17) (0 to 37 days)	M = 4.4 years (M =1,621 days; SD =1,354) (199 to 4,719 days)
	Standard	M = 3.1 years (M =1,134 days; SD=744) (441 to 3,080 days)	M = 49 days (SD = 77) (0 to 290 days)	M = 2.3 years (M =836 days; SD =647) (332 to 2,746 days)
Facility Type	Treatment Facility	M = 6.0 years (M =2,177 days; SD=1,590) (750 to 5,866 days)	M = 22 days (SD = 16) (0 to 37 days)	M = 5.3 years (M =1,944 days; SD =1,425) (376 to 4,719 days)
	Storage/ Transfer Facility	M = 3.3 years (M =1,208 days; SD=716) (435 to 2,840 days)	M = 44 days (SD = 78) (0 to 290 days)	M = 2.4 years (M =879 days; SD =652) (286 to 2,186 days)
	Land Disposal	N/A	N/A	N/A
	Post Closure	M = 4.1 years (M =1,490 days; SD=1,345) (294 to 4,516 days)	M = 17 days (SD = 17) (0 to 36 days)	M = 2.3 years (M =833 days; SD =789) (199 to 2,294 days)

Overall, the permitting process from the start of the Administrative Review through the completion of the permit took as short as approximately 10 months (294 days) to over 16 years (5,866 days), averaging out to 4.3 years (1,564 days). Given that the process takes over 4 years on average, but the call-in letter to initiate the process is sent out only 1.5 years prior to expiration, it makes sense that all

the permits end up expiring prior to the new permit taking effect. The third time frame shows that permits were in Administrative extension from as short as six months (199 days) to over 12 years (4,719 days), averaging out to approximately 3.6 years that facilities are operating without a current permit.

With the permits expiring before the renewed permit becomes effective, there should be little to no time in between permit completion and permit effective dates. Contrary to this expectation, the second timeframe demonstrates that there was on average approximately 1 month in between the permit completion date and the permit effective date overall and in every subgroup. Efforts should be made to identify what is causing this delay and see if it can be eliminated. Since all the facilities appear to be working on expired permits at the time of renewal enforces the idea that the entire permitting process needs to be defined, updated, and streamlined when possible.

Similar to identifying facilities that need frequent NOD's to better plan permitting work, it is advantageous to identify types or even specific facilities that have quick versus more lengthy overall permitting processes. Table 23 demonstrates the difference in timing between those facilities who have a quick turnaround and those who require more extensive processing with the ten shortest and ten longest permit processes.

Table 23: Longest and Shortest Permit Process Times

Facility Name	Authority	Type	Billing Size	Time to complete Permit Process	Year Completed
Shortest Permitting Processes					
Montezuma Hills Facility	RCRA	Post Closure	Large Post Closure	294 days (0.8 years)	2008
Occidental of Elk Hills Inc.	RCRA	Post Closure	Large Post Closure	418 days (1.2 years)	2008
Honeywell International Inc.	RCRA	Post Closure	Medium Post Closure	434 days (1.2 years)	2010
Raytheon Space and Airborne Systems	RCRA	Storage/ Transfer	Small Storage	435 days (1.2 years)	2007
Asbury Environmental Services	Standard	Storage/ Transfer	Standardized Series C	441 days (1.2 years)	2009
International Light Metal	RCRA	Post Closure	Large Post Closure	461 days (1.3 years)	2013
United Technologies	RCRA	Storage/ Transfer	Large Storage	470 days (1.3 years)	2007
Safety-Kleen - Fresno	RCRA	Storage/ Transfer	Mini Storage	476 days (1.3 years)	2007
Big Blue Hills Pesticide	RCRA	Post Closure	Large Post Closure	494 days (1.4 years)	2007
Square D Company	RCRA	Post Closure	Medium Post Closure	544 days (1.5 years)	2009
Longest Permitting Processes					
Dept. of Air Force Vandenberg	RCRA	Treatment	Small Treatment	2519 days (6.9 years)	2008
Advanced Environmental Inc	Standard	Storage/ Transfer	Standardized Series B	2840 days (7.8 years)	2009
Los Angeles Refinery, Carson Plant	RCRA	Post Closure	Large Post Closure	3013 days (8.3 years)	2007
X-Strata Recycling Inc	Standard	Treatment	Standardized Series A	3080 days (8.4 years)	2012
Pacific Resource Recovery	RCRA	Treatment	Small Treatment	3219 days (8.8 years)	2012
Los Angeles Refinery, Wilmington Plant__	RCRA	Post Closure	Large Post Closure	3531 days (9.7 years)	2008
Veolia es Technical Solutions, LLC	RCRA	Treatment	Large Treatment	3693 days (10.1 years)	2011
Tesoro Refining & Marketing Company	RCRA	Post Closure	Large Post Closure	4516 days (12.4 years)	2011
Rho-Chem, LLC	RCRA	Treatment	Large Storage	4867 days (13.3 years)	2008
Clean Harbors – Los Angeles	RCRA	Treatment	Large Treatment	5,866 days (16.1 years)	2011

Determination of a Timely Standard for Permit Process

Looking at the previous analysis, there are nine permits that were renewed in a period of from 1.2 years to 1.5 years. This observation raises the prospect of the Department processing most permits within this period, as a realistic future goal.

However, this study sought several other means of evaluating whether this is indeed a realistic expectation. One approach was to again review the 54 data records accumulated for the period from fiscal year 2008 through the present, rejecting any renewal records that did not include valid data for each process segment from Administrative Review through the end of the Public Review Period to the Permit Completion date. This time frame does not include any Appeals since those typically occur after the permitting team completed the initial permit.

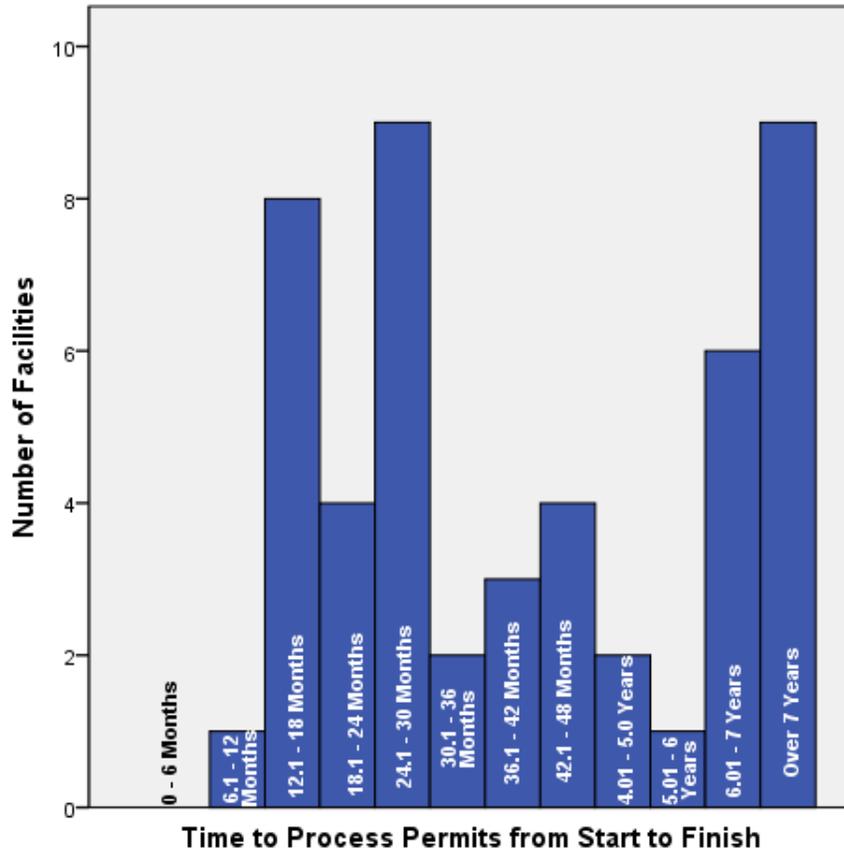
This produced 49 complete data records, of which approximately half were processed in less than 3.0 years, and 26.5% were renewed in less than two years. Table 24 presents the data broken into smaller time periods with the corresponding number of facilities and average processing time within each time frame.

Table 24: Time to Complete Permitting Process from Start to Finish

Time Frame	Number of Facilities	Average Days within Time Frame
0-6 Months	0	N/A
6.1 - 12 Months	1	294
12.1 - 18 Months	8	467.3
18.1 - 24 Months	4	669.5
24.1 - 30 Months	9	799.8
30.1 - 36 Months	2	971.5
36.1 - 42 Months	3	1173
42.1 - 48 Months	4	1347
4.01 - 5 years	2	1737.5
5.01 - 6 years	1	2089
6.01 - 7 years	6	2356.5
Over 7 years	9	3847.2

The distribution of the results is shown in Figure 11.

Figure 11: Distribution of Permitting Processing Time from Start to Finish



This study used the same data set to develop a reasonable expectation for the longest parts of the permit renewal process, including the Administrative Review and Technical review. Those results follow in Tables 25 and 26, respectively. Seven Administrative Review and two Technical Review records were removed as outliers, resulting in a slightly lower number of facilities in the following tables.

Table 25: Time to Complete Administrative Review Period

Time Frame	Number of Facilities	Average Days within Time Frame
0-1 Month	16	18.1
1.1 - 2 Months	6	43.2
2.1 - 3 Months	4	75.3
3.1 - 4 Months	3	102.7
4.1 - 5 Months	0	N/A
5.1 - 6 Months	2	167
6 - 12 Months	2	233.5
12.1 - 18 Months	2	422
18.1 - 24 Months	1	675
2 – 3 Years	4	894.3
Over 3 Years	2	1611.5

Table 26: Time to Complete Technical Review Period

Time Frame	Number of Facilities	Average Days within Time Frame
0-6 Months	0	N/A
6.1 - 12 Months	7	320.7
12.1 - 18 Months	7	500
18.1 - 24 Months	10	632.5
24.1 - 30 Months	9	824
30.1 - 36 Months	2	996
36.1 - 42 Months	2	1149.5
42.1 - 48 Months	3	1375
4.01 - 5 years	0	N/A
5.01 - 6 years	1	2045
6.01 - 7 years	1	2304
Over 7 years	5	3003.2

From these two tables it can be seen that most Administrative Reviews are completed within the first 30 days (average 18.1 days), and most Technical Reviews are completed within 18 – 30 months, with an average of 723.2 days. Based on these numbers, it is not unreasonable to aim for an overall average permit completion for the Administrative Review plus Technical Review of 741 days (the sum of 18.1 plus 723.2), which is approximately 2.0 years.

Analysis of the permit process from start to finish showed that a larger portion of permits are completed between 12.1 and 18 months (average of 467.3 days) or between 24.1 and 30 months (average of 799.8). Even using the larger number and rounding to 800 days it would be equivalent to 2.2 years.

While the path to accomplishment of that goal is not entirely known, the recommendations made within the body of this report should assist in this process.

In addition, the US EPA Region IX Office was contacted to identify some other states that have toxic waste permit programs that are viewed as achieving good results, and from which valid comparative agency information could be obtained. Their recommendations included Arizona, Alabama, and Florida, and contact was made with representatives of each permitting office. The Arizona Department of Environmental Quality (ADEQ) permitting department completes permits for air, water, and waste facilities with their permitting handbook available online⁴⁶ for review which outlined the entire process. A representative of ADEQ's hazardous waste permitting reported that its

⁴⁶ <http://www.azdeq.gov/function/forms/download/handbook/fullhandbookw.pdf>

process takes longer than California, with averages varying by type of permit application from 7.5 to 9.6 years.

Two other states reported significantly shorter averages with the Alabama Department of Environmental Management website indicating “Hazardous waste TSDf permits and municipal solid waste landfill permits **may** take more than two years to review and fully process. It stated that other permits may take only 60-90 days to reach a final decision.⁴⁷” A representative from the Alabama Office of Permitting said their average is anywhere from six months to two years.

The Florida Department of Environmental Protection website states under Hazardous Waste Permitting, “The hazardous waste staff would suggest a pre-application meeting to discuss hazardous waste permit application requirements if a hazardous waste permit is being sought.⁴⁸” Speaking with a representative from the Florida Department of Environmental Protection, the average processing time to review a permit application through the end of the Technical Review is 170 days. The permitting staff is held accountable by upper management who becomes involved if the permitting process is taking longer than six months. However, it is common to reach out to facilities to submit a draft application for an informal review prior to the official submission of the application. The facilities are allowed to initiate modifications during the draft review process, but not during the normal review period unless it is due to extenuating circumstances. This informal draft review is not counted as a part of the 170 days, nor is the public review period as they cannot expedite this timeframe due to regulations.

- **Finding:** The analysis conducted in this study leads to the belief that an average processing time of from 1.5 to 2.2 years should be achievable, and should be a goal of the California permitting program.

Based only on the field audits conducted as part of this study, it is theorized that those permit renewals that require permit modifications, partial closures, or corrective action on the same facility as the renewal request, have the greatest complexity, and take the longest time to complete. If this theory is proved correct, it might raise the possibility of separating out the permit renewal requests with this kind of complexity from those that do not. The specifics of the changes required can only be guessed at from the information at hand, and will not be addressed in this report. At the very least, the measurement of time required for processing such permits should be adjusted to reflect periods during which the renewal action was essentially halted, while prerequisite actions related to the continuing suitability of the entire facility are completed.

⁴⁷ <http://www.adem.alabama.gov/programs/land/permitRegistration.cnt>

⁴⁸ <http://www.dep.state.fl.us/waste/categories/hwRegulation/pages/Permitting.htm>

9) Analysis of Program Metrics

This section of the report is responsive to the contract scope requirement to identify, review, and analyze available program metrics to answer the question: What should be measured in the permitting program in the future? This Chapter deals primarily with performance measures for the Permitting program, and workload will be analyzed in the next chapter. Several types of performance measures are explored in this chapter, including operational measures, outputs, and outcomes.

Operational Measures

Operational measures are those that are used for oversight and management of program operations. Most important in the current context is a system that will show timely and appropriate permitting action, and resolve concerns regarding facilities operating under expired permits for long periods of time. Management currently depends on the data in the EnviroStor tracking system for this purpose. However, as noted in the Field Audit findings (see page 15) just 85% of the most critical data fields have been entered in EnviroStor and just 43% of the identified critical data fields could be verified against actual records in the available Administrative Record. So while this system is the best available for operational metrics, improvements in its consistent use and verification is required, as follows.

This study has determined that the key process steps are not consistently and routinely recorded in the official record of operations, EnviroStor, and that the correct entry of dates of completion should be entered by the project manager and verified by a supervisor, as noted in Recommendation 1-1. The corresponding permit milestones for tracking follow:

- Call in letter – sent
- Application Parts A/B Received
- Administrative Review complete
- Final Part A and B
- Draft Permit Renewal
- Technical Complete Letter
- Public Comment – Begin
- Public Comment – End
- Final Permit Effective

One additional and important time measure (identified in the in-depth analysis of permitting time elapsed in Chapter 8) is that of a **latent time period** between the end of the Technical Review and the beginning of Public Review, as designated by “Public Comment – Begin”. Initially, the initiation of the Public Comment period was assumed to take place at the time of, or immediately after, issuance of the Technical Completion Letter, or entry into EnviroStor of a “Final Part A/B”. It was not expected that there would be a delay in between the completion of the Technical Review and the posting of the draft permit for Public Review.

However, when the record was reviewed, a variable and sometimes long period of time had elapsed between the end of Technical Review and the “Public Comment (Begin)” entry. This period was identified as “latent” time in this review. While no formal analysis of this lost time was performed as a part of this study, this delay is likely the result of either difficulty in getting CEQA negative declarations issued, or planning time regarding the structure and timeline to be allowed for the public comment period, as discussed in Chapter 8, pages 84-85. In either case, this would appear to be unplanned and non-value add time that can be eliminated in the future. Since this latent time was measured at from 0 to 348 days in the permit renewal records reviewed (See Table 17, Chapter 8) this represents a significant possible improvement in process flow.

A second area of delay was identified between the completion of the permit and the permit effective date. Those records indicating a formal appeal were modified to remove the time period recorded for that formal appeal. However, a variable amount of time ranging from 0 to 290 days, averaging out to approximately 1 month, elapsed between the date of “Final Permit” and “Final Permit (Effective)”. This study did not find any reason for that delay, beyond a short period reserved for interested parties to file appeals. It seems that the most lengthy periods (i.e. 290 days) reflect additional areas for process improvement.

Consistent with Recommendation 1-1, Office Supervisors must take responsibility for ensuring accurate entry of these benchmark dates, and intervening to assist with problem resolution when untimely processing occurs. This should include tracking to the described “latent period”, which should be eliminated after implementation of a standard permitting process as referenced in Recommendation 5-1. Each of these terms must be defined (as covered in Recommendation 5-7).

Output Measures

The measures of permit program output are reflected both in a timely final action, and in timely completion of key portions of its review process. Many of these measures are noted in the previous Chapter. They include:

- Years /months per permit renewal
- Annual average of years/months of all permits renewed (Overall, by permit authority, and by permit type.)
- Current annual percent of permits renewed that took more than five years; four years; three years; and two years (Calculated annually, for all permits renewed in that year)
- Administrative extension (time between the existing permit expiring and the new permit taking effect) (Calculated annually, for all permits renewed in that year)
- Number of months in Administrative Review (Average, calculated annually)
- Number of months in Technical Review (Average, calculated annually)

Project Managers and their project teams must ultimately be held accountable for their timely results, and primary measures of that include three of those just mentioned, including:

- Number of months in Administrative Review
- Number of months in Technical Review
- Latent period
- Years /months per permit renewal

Each of these measures should be calculated for each project managed, and included as a part of annual performance evaluation. While rigid devotion to average or arbitrary timelines does not reflect the special circumstances or levels of complexity of specific assignments, Recommendation 5-6 calls for the project manager to develop and post a timeline for each project, with a projected timeline. This timeline should be approved by their supervisor and the completion of each project timeline should be measured against the results of the noted metrics. This will allow a reasonable variation of project timelines that are specific to assignments, and valid. Such metrics would also have to be equally balanced with an overall evaluation of technical completeness of work. In other words, metrics by themselves should not be the sole basis of an annual evaluation.

Outcome Metrics

The last category of measures relate to outcomes – the overall benefit of the permit program to the economy and people of California. Like many regulatory programs, the success of the permitting program is best seen in a zero incidence of any threat – in this case from exposure to hazardous waste materials. But even though the elimination of threats is desired, a non-occurrence is impossible to measure. As a result, other options must be developed.

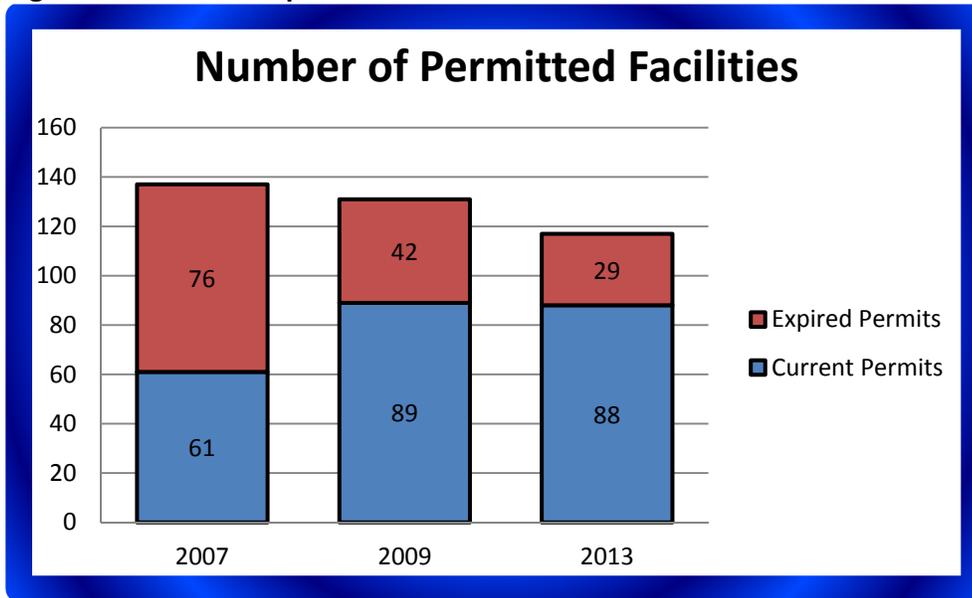
As noted in Chapter 6, while stakeholders were able to define many factors about permitting which they were dissatisfied with, they were unable to clearly define any objective, measurable factors they associated with a “good result” of permitting. The lack of any measurable program outcome metrics is a significant concern, because it creates a perception of a lack of delivered value by DTSC generally, and the permitting program specifically. Long-term, Permitting may be able to incorporate some of the measures developed by the Office of Environmental Health Hazard Assessments, and its CalEnviroScreen mapping of the cumulative impacts of multiple pollutants by zip codes. In that regard it may someday be possible to show a reduction of the pollution burden near the permitted facility.

At the very least, the timely completion of permits is one basic measure that should be used. While the “Administrative Extension” metric (explained above) shows how long permits are pending after expiration of the previously issues permit, the number of operating facilities with “current” permits would be a good outcome measure, showing program “quality”. This measure is something of a “rolling average” that shows an outcome of operational effectiveness. Indeed, this measure has been slowly improving since the year 2000, and every effort should be made to keep that improvement moving into the future.

Table 27: Operating Permit Summary

	2007	2009	2013
Number of permitted facilities	137	131	117
Number of operating facilities With “current” permits	61 (45%)	89 (68%)	88 (75%)

Figure 12: Ratio of Expired to Current Permits



A related outcome measure might show clean-up progress on corrective actions at permitted facilities. This might best be measured in gallons or tons of material removed, and the percent of ordered work completed. Advisory Committee member Bill Magavern noted that, “What is important is how much threat remains to the community, so what contamination remains there is more important than how much was removed.” It is unknown whether information relative to this performance is routinely gathered, and thus, whether such a measure could feasibly be implemented.

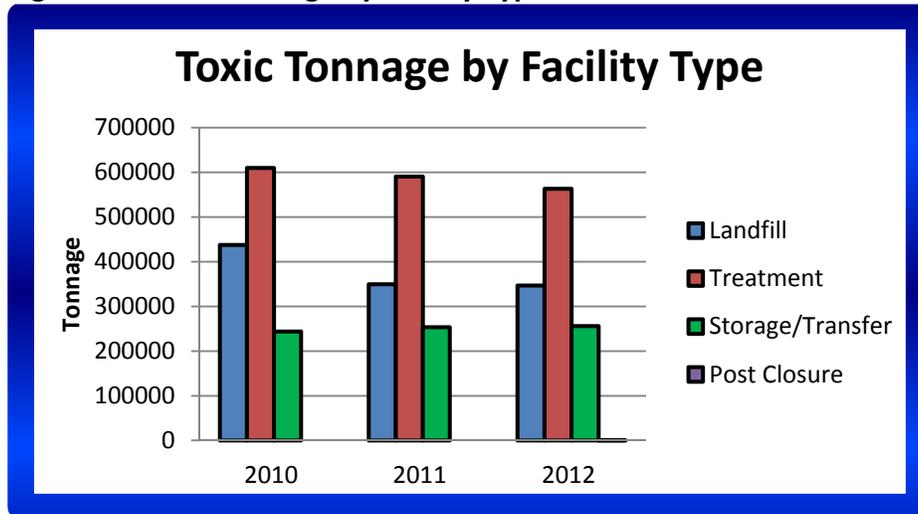
The outcome of the work of the Office of Permitting also authorizes operation of the facilities that serve as a safe “end point” for hazardous wastes generated by California businesses and households. As such, the total tonnage safely delivered per year is a positive and persuasive measure of the positive worth of the program. The following is the recent Department result, made possible through the work of the permitting program.

Disregarding the tonnage received into storage/ transfer facilities, there were 909,848 tons of hazardous waste received and processed by California treatment facilities or landfills in 2012, and verified by manifests. This amounts to 1.82 billion pounds of toxics that were processed according to DTSC statutory and regulatory standards, representing safe disposal. 62% of that total (563,087 tons) was treated to the point where it no longer met toxic requirements, and 38% placed in landfills.

Table 28: Total CA Manifested Tons by Facility Type

	2010	2011	2012	# Facilities
Landfill	437,564.9	349,428.6	346,760.6	3
Treatment	609,804.1	590,655.3	563,087.0	41
Storage/Transfer	243,758.8	253,561.6	255,878.8	43
Post Closure	--	--	15.0	28

Figure 13: Toxic Tonnage by Facility Type



Even though the Toxic Tonnage treated and moved to landfills is generally positive, It is noted that the Department’s long-term goal is to reduce the total annual toxic waste stream, while preventing accidents, spills, and lost loads.

- **Finding:** The Department could and should make significant improvement in data entry and validation, and in the routine and effective use program measures, based on analysis of that data. A focus on performance measures is foundational to improved program results.

Recommendation 9-1: The Office of Permitting should review and implement measures of operation, output, and outcome as recommended, and routinely report its results.

10) Workload Analysis

This Chapter provides a review of the adequacy of DTSC permitting staff. The historic and present staffing of the permitting program is provided in Table 1: “DTSC – Permitting Division Staffing Levels” on page 26. Significant program staffing reductions from 2007 to the present, combined with a continuing long processing time, have raised a question over whether adequate staffing exists.

It is noted that there was a reduction in the staffing of the Office of Permitting from its 95.8 authorized positions in FY 2007, to just 24.6 in FY2009. That represented a 74.3% reduction incurred over two years, which has remained largely unchanged since that time. This 2013 fiscal year (ending June 30, 2013) provided just 29 position years to that office.

This study had proposed to estimate permit renewal staffing requirements by first categorizing the primary tasks associated with permitting, and then working with experienced staff to quantify reasonable time per task standards. Once that was done, it was anticipated that an estimated number of permitting tasks per year could be developed, allowing for total workload to be calculated through the product of estimated tasks and time-per-task standards. Unfortunately, the review of work process was unable to define standard, quantifiable tasks as the basis of workload projections.

As a result, several alternative methods of analyzing work requirements were developed as follows.

Permitting Processing Rates 2007-2012

The number of permits processed on an annual basis can be tracked for past years using Envirostor records and projected for future years using current permit expiration dates and average processing times from past years. It is worthy of note that the work of permitting staff is not limited to permit renewals, but must also include permit modifications, partial closures, corrective actions, and similar activity. The study accounted for this by assuming that these activities are related tasks and an associated part of the whole body of work associated with each permit renewal, and driven primarily by the number of renewals. The observation of the EnviroStor data record seems to confirm this assumption.

The calculations presented are based primarily only on the completed permits each year, adjusted by the number of staff available to do the work. This results in the development of an “average processing time per employee per year” estimate. This is believed to be valid even though permit renewals occur over a multi-year cycle, primarily because the staffing per year has been relatively stable for a number of years, and the expiration cycle of permits does not have large increases or decreases from year-to-year. So if 10 permits were completed this year, they would have been in progress over the previous 4.3 years⁴⁹, even though all were completed this year. However, it is likely

⁴⁹ Average processing time from macro-analysis.

the permitting staff would have initiated or worked on additional permits that will be finished in future years. This balance of initiating, working on, and completing permits provides a good estimate when staffing is relatively consistent across the years. A high degree of variation in staffing would throw off the reliability of the estimate, especially if the estimate is based on a single year in which the staffing level may be higher or lower than typical. The likelihood of error is greatly reduced when staffing is relatively stable, and when the production of multiple years is used as the basis of future worker productivity. This is what was done in the presented analysis.

The first method of developing the “average processing time per employee per year” estimate used the Envirostor records of completed permits. A list of 51 facilities with permitting processes completed during Fiscal Years 2008 through 2012⁵⁰ was identified, broken down by fiscal year. This study had previously calculated the current and historic position utilization in the Permitting Office as noted in Table 1, page 26. This baseline information then yields the average number of permits each employee can process in a year, as noted in the following table.

Table 29: Average Number of Permits Completed Per Employee Per Fiscal Year

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Number Staff	72.8	24.6	22.1	22	26.1
Permits Completed	14	16	10	5	6
Average Permits Per Employee	0.19	0.65	0.45	0.23	0.23

This data shows a five-year average of **35% of a permit** (0.35 permits) per employee per year. The apparent variation in annual productivity could be a result of the temporarily high productivity generated by the permit renewal team⁵¹ in FY2009 and 2010, or it could be due to variation from the permits worked on each year over that period, as discussed previously.

The examination of the permit renewal team closure report provides a second method for determining an average permit completion rate per employee per year, and acts as a validation of the above database. The permit renewal team closure report described the success of the team, consisting of 15 active members⁵², in completing a total of 38 permits over a 29 month period from February 2007 to June 2009. The database was validated as complete by the presence of the same number of completed permits (38) within those dates as mentioned by the Department report. The

⁵⁰ Included the most recent permitting cycle for new, renewal, or post-closure permits. Modifications were not included in this data set.

⁵¹ See explanation of this team on pages 28 – 29. The Permit Renewal Team Closure Report is provided as Appendix E.

⁵² There was also a Support Team of 9 toxicologists, attorneys, geologists, public participation specialists, CEQA, and enforcement staff available when necessary.

calculations⁵³ resulted in each team member completing an average of **1.05 permits per employee, per year.**

This is a faster processing rate than was calculated in the first method, but aligns with the idea discussed in Chapter 8 that this team was processing the easier permits in order to get a larger number of permits completed and into “current” status. Given that the selected permits were presumed to be less complicated than is typical, its average processing time should be viewed either as a maximum processing expectation under current circumstances, or perhaps as an achievable stretch goal if process improvements are achieved. In either case this processing time should be considered an optimal speed, not expected to be immediately applicable to all permitting processes.

A third method for establishing an average processing time is based on derivation of actual permit processing hours input into the Department’s “Daily Log”, a database that records billable employee time on permit actions. Development of the following records were based on the same six permit renewal actions randomly selected for data field validation, and described in “Field Audit of Permit Renewals” section of Chapter 1, on pages 14-16. The data developed in Table 30 shows the actual billable hours devoted to the specific named projects by all permitting program employees for the period of time over which they were renewed (from the date the Part B application was received through the completion of the permit). A full breakdown of hours spent by review period is provided in Appendix U.

Table 30: Time Spent on Six Field Audit Permitting Processes

	Total Hours Spent Processing Permit	# of Years to complete permit	Percentage of permit process completed each year per employee
AERC	576.3	3.58	2.23
AEROJET	3922.55	2.50	0.33
McCormick	2,064.6	4.13	0.62
Naval Air	5,058.3	4.19	0.25
Rho Chem	8,819.1	13.4	0.15
Shell Oil	3,703.1	3.51	0.35
AVERAGE	4,024.0	5.96	0.32

Looking at all six sample cases, it took an average of 4,024 hours to complete each permit process. However, it is noted that two of the six selected permits included the hours for only the Technical and Public Review periods as the records were not able to confirm the start of the Administrative Review period (receipt of Part B). Of these two, one of the processes was more complex as it took over 13

⁵³ 38 permits/29 months = approximately 1.31 permits per month x 12 months = 15.72 permits per year/15 employees = approximately 1.05 permits per employee, per year

years to complete due to extenuating circumstances (change of ownership) and the complexity of this particular permit, so the hours spent could be longer than the average processing time.

It must be noted that this workload analysis methodology is different from the previous method in that it is reporting actual hours in direct work related to the named permits, rather than simply allocating the number of permits completed to all employee hours for a year. The difference is that the actual hours method does not reflect the fact that not every minute of every day of a work year is spent on direct permit activity. Specifically, it must allow for “other hours” in a year, including leave time, sick time, holidays, and time spent in administrative and work tasks unrelated to permits. As a result, the actual hours method can only draw on the share of all time that the employee is actually able to devote to permit tasks. That is done through the “Available Work Year” calculation.

Available Work Year

The available work year for the Department of Toxic Substances Control - Permitting staff is a calculation of the amount of time that staff is on-duty and in the office. It is calculated by taking the base work year (52 weeks per year and 40 hours per week – 2080 hours) and adjusting it to remove annual leave, vacation, and sick leave.

In this study, consultants were provided with the actual staff time charged to Direct, Indirect, and Leave Times, as defined below, within the Office of Permitting for FY’s 2011 and 2012. At the time of this study, final numbers for FY 2013 were not available.

- Direct Time – Hours charged to complete activities or tasks directly involved in the processing of facility permits.
- Indirect Time – Hours charged to Staff meetings, overhead, training, and any other tasks which are work related, but NOT directly involved in the processing of facility permits.
- Leave Time – Hours charged to vacation, sick leave, holidays, etc. in which the employees were paid but not actually in the office performing work tasks.

The overall calculated use of hours by the Office of Permitting staff is presented in Table 31, with a more specific breakdown of time used in each category in Table 32.

Table 31: Overall Average Hours Used by the Office of Permitting staff

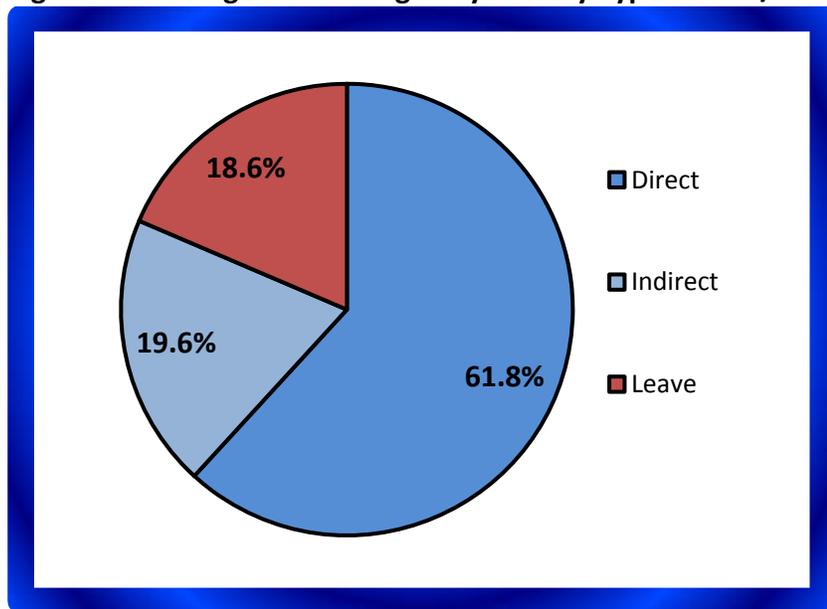
	Number of Used PY	Total possible regular work hours per year	Total Hours Charged per employee	Overtime Hours Worked per employee	Percentage of Overtime Hours Worked
FY 10/11	22	2080	2097.36	17.36	0.8%
FY 11/12	26.1	2080	2120.81	40.81	1.9%

Table 32: Average Time Charged by Activity Type for the Office of Permitting staff

	Number of Used PY	Total Hours Charged per employee	Number Direct Hours	Percentage Direct Hours	Number Indirect Hours	Percentage Indirect Hours	Number Leave Hours	Percentage Leave Hours
FY 10/11	22	2097.36	1244.30	59.3%	408.62	19.5%	444.44	21.2%
FY 11/12	26.1	2120.81	1363.04	64.3%	419.52	19.8%	338.26	15.9%

Figure 14 provides a two year average with approximately 81.4% of time is spent on regular work activities, including both Direct and Indirect Hours (78.8% in 10/11 and 84% in 11/12). Using a standard work year of 2,080 hours per employee, this ends up being approximately 1,693 (2,080*.814) available work hours per employee each year split between Direct and Indirect activities. This is slightly less than the average of direct hours spent across the two years since those totals included the small amount of overtime used.

Figure 14: Average Time Charged by Activity Type FY's 10/11-11/12



Looking at the breakdown of time, approximately 20%, or the equivalent of 1 full work day a week, is spent on Indirect activities or tasks. Alternately, after all other kinds of demands on time, Permitting employees have been able to spend just 61.8% of all time on direct permit renewal activity. We can only therefore assume that each employee can spend 1,285 hours (2080*.618) on permit renewal activities per year.

Given that employees spend 1,285 hours a year on billable/direct work – this method of analysis predicts they would be able to complete **32% of a permit** each year.

Conclusion Regarding Permits per Employee per Year

Given that the above calculation of 32% of a permit per year was based on six randomly selected permits, while the former calculation of 35% of a permit (0.35 permits) per employee per year is based on a 100% sample of the permits completed over a five-year period, the latter figure will be presumed correct in the calculation of required staffing. The close proximity of the two numbers is considered validation of the accuracy of the latter number, with the deviation attributable to variation in the sample selection.

Calculating Needed Personnel

In order to calculate the needed personnel levels, the anticipated permitting work for each fiscal year had to be determined. The Envirostor database was used to identify the facilities that were currently in the midst of the permitting renewal process or were due for renewal between FY's 2014 and 2022 in order to identify how many permits needed to be processed. Based on the average processing rates determined in the analysis of completion rates from 2007 to 2012 (35% of a permit per employee, per year) and the six sample facilities (32% of a permit completed per employee, per year), it was determined that it should take approximately 3 years to complete a permit. The current average processing rate is 4.3 years, but prior to 2007-2008, the average processing time was 3.2 years and it is believed that the permitting staff can achieve and improve upon the prior rate with the implementation of the suggestions in this report.

Using the existing permit expiration dates from Envirostor, each of the facilities was plotted on a graph starting with the receipt of the Part B application, due six months prior to the permit expiration, and ending 3 years later to identify the time frames that each facility was scheduled for renewal⁵⁴. This graph is presented in Appendix V, broken into 6 month periods. Given the 3 year processing time, approximately 34% (1/3) of a permit process is completed every year. The number of permits scheduled to be worked on within each fiscal year was totaled to identify the number of permits anticipated for each year. For example, if six facilities were scheduled to be involved in the permit renewal process in FY 14, it would result in 6 times .34 – which would result in the workload of approximately two full permits (even though it is spread across six facilities). The number of anticipated permits using this methodology is presented in the second column of Table 33.

⁵⁴ If a permit was started more than three years ago and was still in process, they were given almost two additional years to complete the process, with a tentative end date of June 30, 2015. If staff completes the permit prior to this two years, their attention can be shifted to other permits or assisting in the implementation of other recommendations as suggested in Recommendation 7-2. Overdue permits with no current actions were “scheduled” to start in January 2014, allowing staff to send out Call-in letters in the fall of 2013.

Table 33: Number of Anticipated Permit Completions and Needed Employees by Fiscal Year

		Projected Needed Employees
	Anticipated work – Number of Permits each year	Based on 2007 – 2012 Completion Rates: 0.35 per year
FY 13/14	10.5	30.0
FY 14/15	11.7	33.4
FY 15/16	7.65	21.9
FY 16/17	11.2	32.0
FY 17/18	13.8	39.4
FY 18/19	15.3	43.7
FY 19/20	12.6	36.0
FY 20/21	9.52	27.2
FY 21/22	6.97	19.9

Several factors are relevant and important to appropriate future staffing in the Office of Permitting. Realizing that the hiring and training of new personnel will require the time and mentoring of other, current staff persons, it cannot be assumed that as soon as a person is hired they will be productive at the assumed rate. A training and transition period must be allowed. It is apparent, however, that the 30 personnel needed to stay current in FY2014 should be on staff now, and approximately one-quarter of this fiscal year already gone.⁵⁵ This ensures that even if there were no backlog of work at the start of our study, that such a backlog would be developing at this time. A backlog in the current context of work should be interpreted to mean an increase in average permit time.

It is also recognized that appropriate staffing of the office of permitting will require stable staffing over time, rather than allowing sharp increases or decreases. Looking forward we can see that the necessary five-year average staffing level would be 31.34 positions, and the nine-year average staffing level would be 31.5 positions. These noted staffing levels are based on utilized rather than authorized positions, and must be adjusted upwards to reflect vacancy rates. In other words, an agency that wishes to have 50 personnel working for a year, but suffers from a 10% vacancy rate, must obtain 55 authorized positions to meet its labor requirement at year end.

While this study did not develop a vacancy rate for DTSC or Permitting, it can note that the 29 authorized positions in FY2012 and 2013 were only able to be filled at a 26.1 level in FY2012. This implies a 9% vacancy rate. Applying a 9% vacancy rate to a desired 31.5 PY staffing rate would require 34.6 authorized positions in the unit, beginning immediately.

⁵⁵ This comment was based on a Oct. 1, 2013 calendar date.

- **Finding:** The Department of Toxic Substances Control will need to immediately increase its staffing in the Office of Permitting to avoid significant increases in permit processing time, and a reduction in the number of toxic waste facilities operating without a permit.

Recommendation 10-1: The Department should immediately seek authorization through the budget process for 35 positions, and should seek to hire and train those positions as quickly as possible – a 20% increase in its current staffing authorization. This hiring strategy will be necessary to avoid an increase in average permit processing time, and an increase in the number of toxic waste facilities operating without a permit. While permit processing times and productivity per staff person may be expected to be improve through process improvements recommended as a part of this study, it will take multiple years to bring average processing time to a more acceptable.

Summary of Recommendations

Recommendation	Urgency of Implementation <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 1-1: The Department must initiate supervisory confirmation of all milestone dates input into EnviroStor as a double-check to the current practice of independent project manager entry, to ensure accurate input that matches the operational record. This practice will also confirm supervisor awareness of the completion of key permit process milestones, and invite their intervention when prompt processing is delayed.</p>	<p>Required</p>
<p>Recommendation 1-2: Develop a network file including templates and samples of best-quality permitting work products, including model permits and a best practice call in letter, to support the adopted standard process.</p>	<p>Recommended</p>
<p>Recommendation 2-1: Formally articulate the objectives and purposes of the Permitting Program based on law, and ensure that these objectives are disseminated and understood by the permitting staff and the broader public. The lack of a clearly stated objectives and purposes is creating an uncertainty in the actions of the Department, and a lack of clarity in public expectations about the Permitting Program. These objectives and purposes should specifically address three policy questions including: What constitutes a timely permitting action; Under what circumstances lengthy permit renewals are in compliance with law, and; When and how the enforcement and required clean-up actions of recorded violations are adequately considered in permit renewal? Once developed, the objectives and purposes should be reviewed and affirmed by Cal-EPA Secretariat, and the relevant Legislative Oversight Committees.</p>	<p>Required</p>

Recommendation	Urgency of Implementation <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 4-1: DTSC should establish a clear and predictable organizational structure for permitting that is focused on in-person meetings, in-office work, and updated training. Telecommuting should be severely limited or revoked for at least a six-month period while these necessary improvements take place and the objectives and purposes in Recommendation 2-1 are implemented. All permit staff duty statements should be brought up-to-date along with goals and performance appraisals during this period. Necessary updates to standard templates, work aids, and work processes should be achieved. Work units should use this time to build solid relationships with their supervisors. Maintaining traditional in-office work groups, with a supervisor at each location, will improve communication and assist with re-establishment of efficient processes and work production.</p>	<p>Highly Recommended</p>
<p>Recommendation 5-1: Adopt the revised process flow for permitting proposed in this report, or a similar standard process flow. Require notes on the criteria for each decision and the sign-off standards for each process (or project) step. Specify a clear logic for any alterations in dates or tasks. Such a process must respond to the grey areas identified earlier as follows:</p> <ul style="list-style-type: none"> • A defined and coordinate initial process review by DTSC CEQA staff and DTSC Community Involvement staff; • Initial and regular/as needed consultation between enforcement and permitting; • A mandatory permit renewal meeting with the appropriate DTSC technical team and the permit applicant; • A site visit between the appropriate DTSC technical team and the permit applicant early in the Technical Review. 	<p>Required</p>
<p>Recommendation 5-2: The Permitting Office should develop instructional and guidance materials to support the Technical Review process flow. This should include clear and written decision-making criteria associated with each Section, and processing check sheets to match the process steps on the Part B flowchart. The U.S. EPA materials should be used as a reference.</p>	<p>Required</p>

Recommendation	Urgency of Implementation <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 5-3: DTSC should enter into a cooperative agreement with EPA to: 1) Access its technical assistance in revision and design of permit processing procedures; 2) Provide materials and training on Technical Review; 3) Participate in regional permitting discussions and training.</p>	<p>Recommended</p>
<p>Recommendation 5-4: Future changes in management at the civil service level should be discouraged, to allow time for the recommendations of this report to be implemented and for leadership to be held accountable for those changes.</p>	<p>Recommended</p>
<p>Recommendation 5-5: Each project manager should initiate a project “charter” at the time of the ‘call-in letter’, and should complete that charter by the time a complete permit renewal application is received. A project charter structure will direct the project manager to consider and plan for all project variables, and should address:</p> <ul style="list-style-type: none"> • the significant objectives to be addressed; • what is “in scope” and “out of scope” for the action; • the specific deliverables that will be produced; • the estimated effort, cost and duration of the effort; • the required project team and what roles they will have; • the communications plan for the project team; • the stakeholders and any role they will have; • the renewal project assumptions, constraints, threats and necessary approvals. <p>The charter will help in structuring the project team and in development of the project plan.</p>	<p>Highly Recommended</p>
<p>Recommendation 5-6: Immediately after completion of a charter, the project manager should develop and post a project plan for each renewal. The project plan should show all major tasks, and a timeline for completion of each. This project plan should be reviewed and approved by a supervisor and a team lead for that type of renewal.</p>	<p>Required</p>

Recommendation	Urgency of Implementation <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 5-7: Develop a standard lexicon of terms regarding permit renewal actions, so terms such as Notice of Deficiency are not used during Administrative Review, and so that a common, standard process is consistently described in all departmental communication.</p>	<p>Recommended</p>
<p>Recommendation 6-1: The Department should develop a new system of categorizing violations that reflects whether they present an immediate and direct threat to human health and safety, versus a less urgent threat that can be mitigated or resolved through further actions of the Department. The Department’s current definition of “Class 1 violations”, although mandated by law, includes both violations that pose immediate and direct threats along with many that are relatively low- or long-term threats. Until the Department has a system of violations that can distinguish between significant threats to human health and safety and lesser threats, it will not be able to provide an objective standard to guide its own staff actions and to inform the public that the significant threats have been mitigated through actions such as permit modification, denial or revocation.</p>	<p>Required</p>
<p>Recommendation 6-2: The Department should distinguish between Notices of Deficiency that are prejudicial from those that are not, with grounds for prejudice being defined by the language in HSC 25200.8, including “substantially incomplete or substantially unsatisfactory information”, or an untimely response. This change should be pursued as a change to Administrative Law. (The definition of “prejudicial” in the context of this recommendation is that an action to revoke a permit or renewal action would be required after a maximum of three such actions.)</p>	<p>Required</p>
<p>Recommendation 6-3: DTSC should develop and adopt a risk standard for permitting, consistent with stakeholder input that the program must have a standard to demonstrate a clear, documented threat to public safety, human health, or environmental preservation, as a primary driver of appropriate permitting action.</p>	<p>Highly Recommended</p>

Recommendation	Urgency of Implementation <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 6-4: Expand the specialized staffing of the Financial Responsibility Unit to allow for its independent review of clean-up costs and financial assurance obligations, and require sign-off prior to permit renewal. Require compliance with Department policy to update financial assurance every five years. As an interim measure, DTSC should contract out the financial assurance function of the permitting program to an entity that possesses the appropriate knowledge on the topic.</p>	<p>Highly Recommended</p>
<p>Recommendation 7-1: As soon as Recommendations 5-1 and 5-2 are substantially addressed, Permitting should re-offer its 2012 training materials with appropriate updates. This training should be provided to all employees in 90-minute segments, in person and by video conference, on a regular twice-a-month schedule. This should be used as an opportunity to refresh training and to further identify process areas that need attention.</p>	<p>Required</p>
<p>Recommendation 7-2: The Permit Office Manager and Supervisors should develop a list of tasks and actions called for as a part of the improvements recommended by this study, in priority and chronological order, and periodically review it with all staff, possibly at the twice-a-month training meetings. Volunteer assistance should be solicited to develop all materials, and draft products reviewed and approved by designated groups of two or three subject matter experts.</p>	<p>Highly Recommended</p>
<p>Recommendation 8-1: The Department should research whether and how to change its requirements to make the Part B Application due 180 days prior to the expiration of the existing permit. This objective and purpose should be reviewed and affirmed by Cal EPA Secretariat, and if agreed to, recommended to the appropriate Legislative Committees for statutory revision.</p>	<p>Recommended</p>
<p>Recommendation 9-1: The Office of Permitting should review and implement measures of operation, output, and outcome as recommended, and routinely report its results.</p>	<p>Recommended</p>

<p>Recommendation</p>	<p>Urgency of Implementation</p> <ul style="list-style-type: none"> • Required to eliminate identified program issues. • Highly Recommended to respond to identified program issues. • Recommended best practice.
<p>Recommendation 10-1: The Department should immediately seek authorization through the budget process for 35 positions, and should seek to hire and train those positions as quickly as possible – a 20% increase in its current staffing authorization. This hiring strategy will be necessary to avoid an increase in average permit processing time, and an increase in the number of toxic waste facilities operating without a permit. While permit processing times and productivity per staff person may be expected to be improve through process improvements recommended as a part of this study, it will take multiple years to bring average processing time to a more acceptable.</p>	<p>Required</p>