

**Attachments for
Task Force Agenda Item VI:**

**Update on CIWMB AB 2296 Financial Assurance For
Solid Waste Landfill's Post-closure and Corrective Action**

Attachment 1:
Responses to Comments on the ICF
Financial Assurance Study

Responses to Comments on the ICF Financial Assurances Study

Following is a summary of comments and responses to comments on the: *Study to Identify Potential Long-Term Threats and Financial Assurance Mechanisms for Long-Term Postclosure Maintenance and Corrective Action at Solid Waste Landfills (Study)*.

Process

Comment:

Some commenters stated that the process did not allow for adequate review and discussion during the development of the *Study*.

Response:

The short timelines for review of the various work products was dictated by the Legislative timeline for completion and acceptance of the *Study*. All participants in the Advisory Group were informed of this limitation prior to initiation of the project. Please note that prior to implementation of any recommendation contained in the *Study*, additional time for further discussion and stakeholder input would be scheduled. To facilitate the eventual review of the completed *Study*, a number of "White Papers" were developed by the consultant as the basis for the *Study*. The Advisory Group reviewed the White Papers and their comments were forwarded to the consultant. In addition all draft deliverables and comments submitted were posted on the CIWMB web pages dedicated to the *Study*. Also, a workshop was conducted by CIWMB staff and the contractor for the Advisory Group prior to finalization of the *Study*.

Submitted Comments/Documents

Comment:

A couple of commenters stated that they could not see how their comments were reflected in the *Study*.

Response:

All comments and/or documents were forwarded to the contractor for their review and use. Since the *Study* represents the contractor's judgment and work, CIWMB staff is unable to determine the extent to which any particular comment and/or document was used by the contractor in developing the *Study*. Please note that all submitted information will be considered by CIWMB staff in developing any regulations or proposed legislation.

Comment:

Some commenters submitted documents (e.g., ITRC, EREF, Day of Reckoning) concerning the extent of the postclosure maintenance period.

Response:

The purpose of the *Study* was not to determine the length of the postclosure maintenance period. CIWMB staff will review the submitted documents and their applicability for determining the end of the postclosure maintenance period. Please note that California standards are different than Federal standards. Under California requirements, the burden of proof is on the operator to demonstrate that the waste no longer proposes a threat to the public health and safety and the environment. Furthermore, under California standards the threat is based on the inherent nature of the waste. Furthermore, CIWMB staff does not consider local controls to be adequate to maintain the integrity of closed disposal sites.

Need for Study/Problem Definition

Comment:

A couple of commenters stated that the *Study* did not identify and/or define problems with the existing financial assurance system that would necessitate the recommendations included in the *Study*.

Response:

The purpose of the *Study* was not to define the problems but to present various options that CIWMB could consider. The deficiencies in the current financial assurances system have been thoroughly discussed over the last four to five years in several workshops and other venues. The problem statement was incorporated into the Staff Report prepared as the staff analysis of the *Study*.

Corrective Action Definition

Comment:

A couple of commenters stated that the definition of corrective action used in the *Study* was inconsistent with the definition of corrective action in RCRA Subtitle D (RCRA).

Response:

The definition of corrective action (CA) used in the *Study* was a working definition and was not intended to be consistent with the definition of CA contained in RCRA. CA as defined in RCRA only relates to releases to ground or surface water (i.e., impact to water quality). However, CIWMB staff considers Landfill CA to encompass more than just impacts to water quality, hence the more comprehensive definition in the *Study*. When comparing CA to postclosure maintenance, CIWMB staff considers the purpose of postclosure maintenance is to *maintain* the integrity of the closed landfill, while the purpose of corrective action is to *restore* the integrity of the active or closed landfill by implementing measures to remediate environmental damage and protect public health and safety. Please note that while postclosure maintenance is only necessary at closed landfills or for closed areas of active landfills, corrective action may be necessary at both active and closed landfills. The definition of CA will be further refined during the April Corrective Action Workshop.

Financial Assurance Mechanism Evaluations

Comment:

There were several comments concerning the relative merits of the various mechanisms.

Response:

The FA mechanism evaluations included in the *Study* represent the contractor's (author's) opinion of the strengths and weaknesses of each of the mechanisms. CIWMB staff does not necessarily agree with each of the contractor's rankings of the mechanisms. In making any recommendations for future regulations and/or legislation, staff will consider the evaluations included in the *Study* but will rely on its best professional judgment after considering all relevant information.

Comment:

There were several comments that disagreed with the contractor's poor rating for the Pledge of Revenue.

Response:

CIWMB staff strongly disagrees with the contractor's conclusions regarding the viability of the Pledge of Revenue. CIWMB staff considers the Pledge of Revenue to be an effective and secure mechanism for providing financial assurances for postclosure maintenance. CIWMB staff will be considering means of standardizing the Pledge of Revenue to address one of the findings noted in the *Study*. This topic will be addressed at the May Phase II Regulation Workshop. Furthermore, this topic may also be discussed at the March Postclosure Maintenance and the April Corrective Action Workshops.

Comment:

There was a comment concerning the viability of non-third party mechanisms for closure and postclosure maintenance.

Response:

Pursuant to legislation (Public Resources Code section 43601[b]), CIWMB must accept all mechanisms that are allowed under Federal regulations. However, use of these mechanisms can be reasonably conditioned. For example, the financial means test is only allowed for postclosure maintenance and not for closure. This topic will be examined further at the May Phase II Regulation Workshop. Moreover, this topic may also be discussed at the March Postclosure Maintenance and the April Corrective Action Workshops.

Pooled Fund Model

Comment:

Some commenters expressed concern about both the pooled fund scenario contained in the *Study* and the assumptions used for the pooled-fund model.

Response:

For the *Study* the contractor was to develop a pooled-fund model that could be used by CIWMB under various scenarios. The scenario used to validate the model in the *Study* was only one of several potential scenarios. Furthermore, many of the various assumptions/factors used in the model can be modified including, but not limited to, default probabilities, number and cost of corrective actions, and general landfill data. CIWMB staff intends to evaluate several various scenarios under various assumptions and conduct workshops prior to making any final recommendation to the Board regarding the necessity and use of a pooled fund. Various scenarios will be presented at the February Pooled-Fund Workshop. Scenarios to be considered would include: public versus private and all post-30 PCM and/or CA costs versus defaults only. Input values will also be adjusted for various sample scenarios for demonstration purposes and discussions.

Comment:

Some commenters expressed specific concerns about the frequency and level of corrective actions used for the sample scenario presented in the *Study*.

Response:

CIWMB staff is currently reviewing Board, LEA, and Regional Water Board records regarding corrective actions at landfills to help determine the appropriateness of the modeling inputs. The results of this work will be discussed at the April Corrective Action Workshop.

Comment:

One commenter objected to the assumption that the costs for postclosure maintenance remained constant. They suggested that the costs would decrease over the postclosure maintenance period and would be minimal after the initial 30-year period.

Response:

The pooled-fund model took a conservative approach in presenting the potential liability/costs that may be incurred as the result of a default. Contrary to the comment, CIWMB staff has not observed the annual cost of postclosure maintenance to be decreasing for sites that have already commenced postclosure maintenance. Staff has not received revised postclosure maintenance plans reflecting decreased costs associated with maintaining the landfills. In addition the model did not take into account the increase in costs due to inflation or other cost factors. This issue will be discussed at the March Postclosure Maintenance Workshop. Also, the input parameter for postclosure maintenance costs can be adjusted in the model. This scenario may be addressed at the February Pooled-Fund Workshop. Typically, payment request have been for one annual increment (1/30) of the postclosure maintenance amount and not for the actual costs incurred.

Comment:

Some commenters asked whether the pooled fund would be in addition to or in lieu of other financial assurances.

Response:

As part of the May Phase II Workshop, the potential use of the pooled fund in relationship to other financial assurance demonstrations currently allowed for or provided by operators under current California regulations will be discussed. Depending upon the mix of financial assurance options, the pooled fund may be independent or used in conjunction with other current or new assurances. CIWMB staff will discuss this issue at the May Phase II Workshop and present options at the June Permitting and Compliance Committee meeting.

Insurance Product

Comment:

There were comments both for and against an insurance product and the parameters for that product.

Response:

Based on the information in the *Study*, CIWMB staff does not recommend pursuing an insurance product at this time. The insurance industry is not interested in selling a product for this purpose, and the Board directed staff in December 2007 not to pursue an insurance product further at this time..

Risk Screening Methodology

Comment:

Some commenters stated that the Risk Screening Methodology was inadequate to determine individual landfill risk.

Response:

The Risk Screening Methodology (RSM) was intended to be a “high-level” screening tool to compare potential threats of landfills. The RSM was never intended to be a site-specific detailed risk assessment. The purpose was to develop a method to compare landfills to each other, i.e., a relative ranking, rather than an absolute ranking for each site. Any particular score for a landfill does not represent any particular level of threat but only its relative threat when compared to other landfills. Therefore, a high score does not mean that a particular landfill is an imminent threat. It is only that when compared to a landfill with a lower score, the higher-score landfill would appear to have a greater “potential” threat for an impact than the lower scoring landfill. Other potential risk screening methodologies will be examined as part of the April Corrective Action Workshop.

Comment:

Several commenters suggested additional and/or alternative factors for the RSM.

Response:

Although many factors were considered for the RSM, the number of factors was limited so that the RSM would not be overly cumbersome or complicated. The factors chosen for the RSM were those for which the necessary data would be readily available and quantifiable. These factors were also those that when combined would give a reasonable representation of the relative threats of landfills and take into consideration siting, design, and receptor factors. The siting and design factors represent the relative threat of damage or impact that may occur while the receptor factors represent what population may be impacted. The combination of these factors represents the relative threat of a landfill. Alternative factors and values will be discussed at the April Corrective Action Workshop.

Comment:

Some commenters suggested alternative scoring breakpoints.

Response:

Since the purpose of the RSM was to provide a relative -- not absolute -- threat, the current state minimum standards (i.e., RCRA Subtitle D and 27 CCR) were used as the middle value for each factor as applicable. In this way, those sites which were designed to higher standards would receive “credit” while those designed to lesser standards (e.g., older, unlined sites) would have lower scores.

Comment:

Some commenters asked what the proposed use of the RSM would be.

Response:

Although various uses of the RSM have been contemplated, at this time there is no specific use of the RSM that has been determined. The RSM can be a useful tool to make a high-level evaluation of a landfills relative potential to impact public health and safety and the environment. Other possible uses include: (1) estimating corrective actions in the pooled fund; (2) setting fee structure and amount for the pooled fund to encourage progress of environmental controls; and (3) potential for disbursement priority if a pooled fund is developed with limited resources (incapable of handling all expected needs). Depending upon the intended use of the RSM, CIWMB would consider alternative factors and/or scoring criteria for the RSM.

Attachment 2:
Responses to Comments on
the Staff Report

Responses to Comments on the Staff Report

Following are the generalized comments and responses to comments on the: *Staff Analysis and Request for Direction on Long-Term Postclosure Maintenance and Corrective Action Financial Assurances for Landfills*

Staff Report Comments:

Comment:

Corrective Action costs identified in the report should identify whether the costs shown are for only those costs relating to the water quality corrective actions and not non-water quality issues.

Response:

The corrective action costs identified in the report are identified as the costs developed by the individual landfill operators and submitted to and approved by the various Regional Water Quality Control Boards in conformance with the current requirements of Title 27 of the California Code of Regulations for reasonably foreseeable corrective action cost estimates.

Comment:

Show factors for publicly owned/operated landfills vs. those by private sectors.

Response:

Staff consistently proceeded with the review and analysis of the ongoing maintenance of closed landfills in a deliberate process to not draw attention to potential differences in public and private operations of landfills. However, in the upcoming use of the funding model, many alternative “funds” will be modeled, including scenarios with limited participation by various sectors of the industry. The modeling scenarios will be the topic of a workshop to be held in February 2008.

Comment:

Privately owned landfill operators should be required to match the liability exposure assurance to the facility’s Solid Waste Facility Permit (SWFP) entitlement.

Response:

Conformance with both California law and federal requirements will be maintained for all operators in regards to all aspects of planning, permitting and providing of financial assurance demonstrations for the facility during consideration of any alternative permitting and plan approval process considered by the Board.

Comment:

The Staff Report should be expanded to provide a comparison of the existing method for determining Financial Assurance Estimates vs. the proposed “Fund as You Build Option” to ensure compliance with AB 2296 requirements and intent.

Response:

The Staff Report was not intended to provide the answers to all the potential scenarios to be examined by the Board regarding the long-term issues of closed landfills. In contrast, the Staff Report laid out a number of possible solutions and a time-line and process by which these potential solutions can be examined. During the upcoming months, all the proposed scenarios will be further examined and solutions meeting all statutory requirements, including provisions enacted by AB 2296, will be considered.

Comment:

The analysis and regulations should provide the operator with the option to choose whether to permit and develop the site in phases or to seek a permit for the total capacity of the site.

Response:

Under the current regulatory structure, the operator does have the option to permit only a portion of the ultimate projected landfill. However, all proposed scenarios will be further examined and solutions meeting all statutory requirements, including provisions enacted by AB 2296, will be considered during the rulemaking. A draft rulemaking workshop for Phase II proposed amendments is scheduled for May 2008 to discuss the proposed amendments.

Comment:

Closure cost estimates and financial assurances should be based on the maximum exposure of the liability and should match the permit entitlements.

Response:

Conformance with both California law and federal requirements will be maintained for all operators in regards to all aspects of planning, permitting and providing of financial assurance demonstrations for the facility during consideration of any alternative permitting and plan approval process considered by the Board.

Comment:

The operator should be allowed to gradually fund the estimated closure cost, provided the amount is sufficient to close the site at any point in time, should the owner/operator default on its obligations or be in bankruptcy.

Response:

Conformance with both California law and federal requirements will be maintained for all operators in regards to all aspects of planning, permitting and providing of financial assurance demonstrations for the facility during consideration of any alternative permitting and plan approval process considered by the Board.

Comment:

The analysis should clarify whether identifying the phased increased exposure of the facility is cumulative and includes the liability cost of closed areas or completed phases (un-closed) of development plus cost of proposed phases within the 5-year permit period.

Response:

The Staff Report identified direction to consider regarding the phased pay-in periods that identified costs which were cumulative in nature to fully close the site. The postclosure maintenance of the site is currently calculated on the total permitted site which represents the greatest extent of the costs of postclosure maintenance as required under existing regulations. Consideration in upcoming workshops during March and May 2008 will focus on the postclosure maintenance aspects and the proposal of rulemaking language, respectively. Conformance with both California law and federal requirements will be maintained for all operators in regards to all aspects of planning, permitting and providing of financial assurance demonstrations for the facility during consideration of any alternative permitting and plan approval process considered by the Board.

Comment:

The staff report analysis should include a discussion, including a demonstration, of how the proposed "fund as you build option" compares with the existing method for determining closure cost estimates and financial assurances under current regulations.

Response:

The Staff Report was not intended to provide the answers to all the potential scenarios to be examined by the Board regarding the long-term issues of closed landfills. In contrast, the Staff Report laid out a number of possible solutions and a time-line and process by which these potential solutions can be examined. During the upcoming months, all the proposed scenarios will be further examined and solutions meeting all statutory requirements, including provisions enacted by AB 2296, will be considered. Specifically, in March 2008 the postclosure maintenance costs will be examined and in May 2008 the proposed rulemaking will be discussed.

Comment:

The staff report should be revised to include a section discussing both the solid waste industry and the local government perspectives on the closure cost estimates and financial assurances as currently proposed.

Response:

The Staff Report was not intended to provide the answers to all the potential scenarios to be examined by the Board regarding the long-term issues of closed landfills. In contrast, the Staff Report laid out a number of possible solutions and a time-line and process by which these potential solutions can be examined.

During the upcoming months, all the proposed scenarios will be further examined and solutions meeting all statutory requirements, including provisions enacted by AB 2296, will be considered.

Comment:

The staff report is a reasonable and fair summary of the problem and an appropriate action plan to accomplish the tasks assigned in AB 2296.

Response:

The Staff Report was not intended to provide the answers to all the potential scenarios to be examined by the Board regarding the long-term issues of closed landfills. As commented, the Staff Report laid out a number of possible solutions and a time-line and process by which these potential solutions can be examined. During the upcoming months, all the proposed scenarios will be further examined and solutions meeting all statutory requirements, including provisions enacted by AB 2296, will be considered.

Comment:

Where are the landfills that will be closed by 2009 which are identified in the staff report?

Response:

The specific landfills which have closed and the proposed closure dates are all available within the Board's Solid Waste Information System (SWIS). The identification of the landfills in this response document is not productive to the understanding of the situation under consideration. All aspects of the postclosure maintenance of the closed landfills will next be discussed during a scheduled workshop in March 2008.

Comment:

What threats do the closed landfills pose?

Response:

The threats of all closed landfills are site specific elements, including but not limited to the types of waste disposed, the location of the facility, the manner of disposal, the containment design and construction, etc. The Staff Report made recommendations to proceed in an orderly fashion in the further discussion of identification and weighting of potential threats and possibilities for providing assurances to the State of the operator's ability to respond to these threats.

Comment:

Are the closed landfills public, private, covered by corrective action financial assurance demonstrations, and are they rural small sites or large urban sites?

Response:

The currently closed landfills fall within each of the categories described in the comment. The Board is committed to an ongoing process to evaluate the many alternatives available to pursue additional assurance that all closed facilities will be maintained in a manner that will not impact human health and safety and the environment. All aspects of postclosure maintenance and reasonably foreseeable corrective action will be the topics of workshops during February through May 2008.

Comment:

The problem statement makes statements that need further description of the facilities being identified.

Response:

The problem statement in the Staff Report is a brief summary of the problem identified by Board direction to staff in 2006, after more than two years previous discussions, workshops and working group sessions with all stakeholders interested in the topics. Specific to the facilities identified – the facilities considered throughout the study include all the facilities subject to the Board's financial assurances rules. These facilities are all landfills that were operated on or after January 1, 1988.

Comment:

How are the "more than \$600 million in unassured costs by the end of the century" characterized?

Response:

The details of the unassured costs and how they were derived are available in the background papers and discussions as presented to the Board and at the working group sessions and workshops since 2003. In

brief, the total cost, is that cost as currently estimated, which is needed to maintain the closed facilities and the currently operating facilities scheduled to close during this century which is beyond the financial assurance demonstrations currently provided for the 282 landfills currently subject to the Board's financial assurance rules. To clarify the statement within the Staff Report, the actual statement is "By the middle of this century the net present value of unassured PCM costs for all sites in PCM as currently estimated could be more than \$600 million, growing to an accumulated unassured value of \$3.2 billion by the end of this century."

Comment:

Are these unassured costs the result of bad estimates, RWQCB failure to apply current law, 30-year demonstrations, etc.?

Response:

As identified above, these costs are the result of current postclosure maintenance estimates and the current financial assurance demonstrations for these estimates.

Comment:

Do figures 1, 2, & 3 include updates for inflation? This should be explained in the text.

Response:

Figure 1 is simply a count of facilities which have closed and entered the postclosure maintenance phase.

Figure 2, as stated in the Staff Report, is "...the net present value of unassured PCM costs for all sites in PCM as currently estimated." Also, as identified in the Staff Report, "These values are derived from the PCM cost estimates as they are currently represented by the owners/operators today. The estimates neither identify any decreases in ongoing PCM expenses over time or any increases in the same expenses. There is currently no methodology to predict when or to what degree sustained reductions in the estimated PCM expenses at closed landfills will occur."

Figure 3 is a current listing of the types of financial mechanisms provided, the count of each utilized, and the total value. As described in the Staff Report, "the Board currently identifies and allows twelve distinct FA mechanisms for owners/operators to provide assurances to the State of their ability to maintain and care for their facilities."

Comment:

The staff report should more specifically identify water quality related corrective action references and non-water quality related corrective action references.

Response:

The corrective action costs identified in the report are identified as the costs developed by the individual landfill operators and submitted to and approved by the various Regional Water Quality Control Boards in conformance with the current requirements of Title 27 of the California Code of Regulations for reasonably foreseeable corrective action cost estimates. There are no current requirements to develop and submit non-water quality related corrective action cost estimates. All discussions of future consideration of reasonably foreseeable corrective action estimates are identified as non-water quality related if they are not water quality related. Otherwise, reference to "corrective action" relating to either both water and non-water quality related or only water quality related is determined by the usage in the specific instances. The Board will be holding a number of workshops during February through May 2008 to further discuss the various issues raised in the Staff Report. Every effort will be taken to ensure clarity of thought throughout these discussions.

Comment:

Figure 3 seems to assume that postclosure maintenance estimates do not include non-water related corrective actions. The report should note that some of these costs are included and distinguish these costs and quantify these costs.

Response:

Figure 3 reports financial assurance demonstrations by the type of financial mechanism provided and the coverage identified by the mechanism description. The discussions throughout the study process identified that some postclosure maintenance cost estimates include some aspects of corrective action activities,

whether water quality related or non-water quality related, for some facilities. However, as these costs are included within the developed postclosure maintenance estimates and not identified as corrective action activities, without a thorough re-submittal of the postclosure maintenance plans and re-review and subsequent approval, these costs are not readily identifiable. One proposed result of the contractor study is the re-evaluation of each postclosure maintenance plan and estimate as the regulatory cycle of updates to plans progresses over the coming years. These re-submittals and evaluations should clarify costs associated with maintenance of closed facilities and costs related to corrective action activities, whether water quality related or non-water quality related.

Comment:

General concerns with the concept of extending the 30-year requirement for postclosure maintenance insurance indefinitely as insurers will not provide affordable instruments unless there is a defined period of coverage.

Response:

The Staff Report acknowledges this limitation with the insurance demonstration and recommends that the Board not pursue the use of insurance for ongoing postclosure maintenance financial assurance demonstrations.

DRAFT