STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of SOUTH BAYSIDE SYSTEM AUTHORITY for Review of a Decision by the Division of Water Quality. Our File No. G-46.	Order No. WQG 84-3

BY THE BOARD:

The petition of South Bayside System Authority (SBSA) seeks review of a decision by the Division of Water Quality (DWQ) on grant funding of change order costs. In substance, SBSA and its construction contractor agreed to Change Order No. 7 which provided for payment of an additional $2,952,975 to the contractor for project work on SBSA's Redwood Shores Treatment Plant. DWQ eventually limited grant funding to costs of $2,034,886, thereby, in substance, disapproving $918,089 as an allowable project cost.[1/] SBSA seeks grant funding for all change order costs.

I. BACKGROUND

SBSA undertook to design and construct a treatment works project commonly referred to as the Redwood Shores Treatment Plant.[2/] The project was designed by the consulting firm of Jenks

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1. The decision indicated represents the final DWQ determination in this matter. A prior decision which indicated that only approximately $290,000 of change order costs would be accepted for grant funding was subsequently reevaluated by DWQ resulting in the decision indicated.

2. The plant has now been completed and generally serves Redwood City, San Carlos, Belmont and the Menlo Park Sanitary District.

and Harrison on behalf of SBSA. The soils consulting firm of Cooper-Clark and Associates acted as a consultant to Jenks and Harrison on the project. The prime contractor for the portion of the work under consideration was Dyn Construction Corporation (Dyn).[3]

The project, as designed, required a massive foundation excavation in "Bay Mud".[4] The proposed excavation, at its lowest point, reached a depth of 30-32 feet. Cooper-Clark prepared a report on site conditions. That report, while not a part of the formal bid documents, was made available to bidders on the project, including Dyn. The report, in part, stated that "a temporary excavation for the proposed structure could be opened on slopes of 2 horizontal to 1 vertical."[5] As a part of its work, Dyn attempted the excavation on the basis of an uncontrolled 2:1 slope cut. The excavation was about 50 percent complete, with depths of about 10-20 feet below original grade, when massive slope failure occurred.

Dyn ceased excavation work claiming that a "differing site condition"[6] existed and requesting an equitable adjustment of its contract price. A dispute developed between SBSA and Dyn over

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3. Formerly AFB Contractors, Inc.

4. "Bay Mud" is a soft and highly compressible organic silty material. At the site in question, the Bay Mud extended to a depth of 65-75 feet, being overlain by a crust approximately 2 feet thick.

5. Cooper-Clark & Associates Report, Foundation Investigation, Proposed Subregional Wastewater Works, Redwood City, California, for the South Bayside System Authority.

6. What constitutes a "differing site condition" and the consequences that flow therefrom will be discussed hereafter.

both the cause of the slope failures and the legal liabilities of the parties for additional project costs related to the failure.

Ultimately, SBSA and Dyn negotiated a settlement of their dispute. It was the consensus of all concerned that the best solution to the problem was to redesign the Plant at a higher elevation. The Plant was so redesigned and eventually built at the higher elevation. SBSA agreed to pay Dyn an additional $2,952,975 on account of additional project costs incurred and to be incurred by Dyn. The additional costs agreed to were reflected in Change Order No. 7. As a part of the overall settlement, SBSA reserved the right to seek recoupment from Dyn of any portion of the additional costs which were not accepted for grant funding.

Change Order No. 7 and the settlement agreement were presented by SBSA to DWQ with a request for grant funding of the additional project costs. In support of its request, SBSA contended, in substance, that the site conditions encountered were unforeseen and reasonably unforeseeable due to the unpredictability of Bay Mud. As previously indicated, DWQ decided that grant funding of additional project costs should be limited to $2,034,886.

The background and basis for DWQ's decision is as follows. Not having any particular expertise with Bay Mud and being faced with conflicting consultant reports and analyses, DWQ sought assistance and an independent evaluation from the California Department of Transportation (Caltrans). Caltrans provided a letter report to DWQ.[7/] Primarily based on this report, DWQ decided that a true

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7. Letter of January 26, 1979, from Raymond E. Forsyth, P.E., Chief, Geotechnical Branch, Department of Transportation, Division of Construction, Transportation Laboratory to Walt Hagen, then Chief of the Construction Section of DWQ. This report will be discussed in some detail hereafter.

case of "differing site conditions" was not involved, that the site conditions and subsequent failure were not reasonably unforeseeable, and that the excavation failure was due either to improper design or improper execution of work by the contractor, or both. Having made this decision, DWQ ultimately elected to treat Change Order No. 7 as a necessary project change order and to base grant funding decisions on this approach. Under this approach, grant funding is provided for project costs which would have been incurred if the project had been properly executed in the first instance, excluding unnecessary costs of the failed work and costs of rework, acceleration, delay and disruption. Construction of the plant at the higher elevation ultimately determined to be necessary would have involved additional costs. After consultation with SBSA and its consultants, DWQ concluded that the additional project costs involved in construction at the higher elevation would have amounted to $2,034,886 which was the amount accepted for grant funding.[8/]

II. CONTENTIONS AND ISSUES

SBSA, both in its request to DWQ for grant funding and in its petition to us, contends that a site condition which was unforeseen and reasonably unforeseeable was encountered on its project. It is contended that, upon encountering these conditions, SBSA and Dyn resolved the dispute over causation and cost in a

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8. The foregoing contains a brief summary of the situation before us. For the sake of brevity, we have recited only those facts which appear necessary for an understanding of the problem before us. The background and current status of the situation, including ongoing litigation between SBSA and Dyn into which the State Board has been drawn, are more fully set forth in staff reports filed with this Board to which reference is hereby made.

reasonable manner in accordance with federal regulations, ultimately entering into a settlement agreement and Change Order No. 7 whereby SBSA agreed to pay Dyn an additional $2,952,975.[9] SBSA contends that the decision of DWQ not to fully approve the amount agreed upon between SBSA and Dyn thwarts good faith efforts to settle a contractor's claim as required by federal regulations and unjustly deprives SBSA and the contractor of legitimate grant funding.

In various discusssions with the State Board staff and in other proceedings, Dyn has supported the contention that "differing site conditions" existed at the site of the project.[10] Dyn has also made a number of other contentions, including assertions that:

1. DWQ is obligated to implement applicable federal regulations in its administration of the Clean Water Construction Grants Program;
2. Federal regulations and the delegation agreements between the United States Environmental Protection Agency (EPA) and the State Board require full grant funding of all project costs associated with a "differing site condition" regardless of all other considerations;

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9. Subject, of course, to a reservation of right by SBSA to seek recoupment of any portion of this cost which was not accepted for grant funding.

10. Under our rules Dyn has no direct right to appeal DWQ decisions to this Board. (See 23 C.A.C., Chapter 3, § 2154; 23 C.A.C. Chapter 4, § 3655.) Dyn is however an obviously interested party and we have elected to adopt procedures which permit Dyn to be heard and to respond to the issues involved.

3. DWQ and the State Board have the right to make final decisions on the allowability of project costs.

The essential issue, of course, is whether, under the circumstances of this case, grant funding should be provided for all costs agreed to by SBSA and Dyn in Change Order No. 7. Adequate consideration of contentions made and the issue involved will require some discussion of the Clean Water Construction Grants Program, the relationship of EPA and the State Board in the operation of that Program, federal approaches to grant funding of project costs, "differing site conditions" and costs associated therewith, and the particular facts of this case.

III. DISCUSSION

The Clean Water Construction Grants Program is a joint federal/state program which provides grant assistance to local municipalities for the construction of wastewater treatment works. The program functions pursuant to the Federal Clean Water Act[11/] and various state laws. The majority of funds involved are provided by the federal government through EPA. Generally, EPA provides grant funding for 75 percent of those project costs which EPA determines to be reasonable and necessary. The State provides an additional 12-1/2 percent of approved project costs. While federal and state grant funding is provided, the grantee municipality is responsible for planning, design and construction of the facilities.

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11. 33 U.S.C.A. § 1251 et seq.

Pursuant to delegation from EPA, the State Board handles day-to-day grant administrative activities on behalf of EPA. The arrangement and relationship between EPA and the State Board are reflected in an Agreement In Principle and various Functional Delegation Agreements. Under these agreements, the State Board is obligated to implement EPA regulations, policies and guidance. Dyn is therefore correct in asserting that DWQ is obligated to implement EPA regulations in administration of the Construction Grants Program.[12/] This contention is true both as to DWQ and this Board. Not all functions, however, have been delegated to the State Board. For example, the State Board does not have authority to issue federal grants or grant amendments, nor does it have authority to make determinations under the National Environmental Policy Act. With respect to the contentions in this case, the State Board does not have authority to make final determinations on allowable project costs, i.e., those costs which will receive grant funding. This is made patently clear by the applicable federal regulations.[13/] This principle is also clear on the face of the delegation agreements between EPA and the State Board.[14/] Dyn's contention to the contrary is demonstrably incorrect.

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12. See Agreements In Principle Regarding Delegation of Authority between EPA and the State Board of May 23, 1975, and September 28, 1978.

13. See, for example, 40 CFR 35.1030-3(d) and (f), 43 FR 42253, September 30, 1978; 40 CFR 35.960, 39 FR 5253, Feb. 11, 1974, as amended at 40 FR 20083, May 8, 1975; 40 CFR 30.1105 et seq., 40 FR 20232, May 8, 1975.

14. See Footnote 12.

For all practical purposes, the Construction Grants Program is controlled by and operated pursuant to federal statutory law, and EPA regulations,[15] policies and guidance. It is this law, and these regulations, policies and guidance which sets out the duties and responsibilities of the State Board and the municipal grantees, such as SBSA. It is under this law, and primarily under EPA regulations, policies and guidance that allowable project costs are determined.

With respect to allowable project costs, since the inception of the Program the overriding federal approach has been that EPA will only provide federal grant funding for those costs which EPA, in its discretion, determines are "reasonable and necessary" project costs.[16] EPA decisions on allowable costs have been made discretionary with that Agency, and EPA approaches and decisions will be overturned only if they are in violation of law, or clearly arbitrary, capricious, or erroneous.[17]

There are, in fact, many costs associated with a project which EPA, for a variety of reasons, does not grant fund. For example, EPA will not grant fund costs for obtaining necessary permits for construction of the project, acquisition costs for plant sites,

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15. Primarily 40 CFR, Parts 30 and 35.

16. See, for example, 40 CFR 30.705; 40 FR 20232, May 8, 1975; 40 CFR 35.940, 39 FR 5253, Feb. 11, 1974, as amended at 40 FR 20083, May 8, 1975; 40 CFR 35.2250 and Appendix A thereof, 47 FR 20455, May 12, 1982 as amended at 49 FR 6248, Feb. 17, 1984.

17. See 33 U.S.C.A. § 1282(a)(1); Ethyl Corp. v. EPA, 541 F.2d 1, 33-37 (1976); Sierra Club v. EPA, 540 F.2d 1114, 1123-1124 (1976).

acquisition costs of sewer rights of way, etc.[18] Arguably, from our perspective, all or some of these costs might be made grant eligible since a project cannot proceed without incurring such costs. However, in the end analysis, our perspective on those costs which should be allowed is of little moment. In this Program, we operate basically as an arm of the federal government and we are obligated to follow federal rules, guidance and policies regardless of our own personal preferences.

With respect to this particular case, the controlling federal approach, as we see it, is as follows. The federal government will not grant fund any project cost which they perceive has arisen from or been occasioned by the mismanagement of any party other than the federal government. The federal approach is basically founded upon the principle that a municipal grantee has the primary, and to a large extent the sole, responsibility to plan, design, construct and control the project with due degree of care, diligence and expertise.[19] In the eyes of the federal government, as between the grantee and the federal government, the grantee is responsible not only for its own acts but also for the acts of its agents,

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18. See, for example, 40 CFR 35.940-2, 39 FR 5253, Feb. 11, 1974; 40 CFR Part 35, Appendix A, 47 FR 20455, May 12, 1982, as amended at 49 FR 6248, Feb. 17, 1984.

19. See, for example, 40 CFR 30.210, 40 FR 20232, May 8, 1975; 40 CFR 35.936-5, 40 FR 58604, December 17, 1975; 40 CFR 35.935-1(a), 43 FR 44049, September 27, 1978.

including its consultants and construction contractors.[20/] To put the principle another way: the federal government will not grant fund project costs which could have been avoided by exercise of due care by the grantee, its consultants and other contractors on the job.

In connection with "differing site condition" costs, to the best of our knowledge this appeal presents the first occasion that the Board itself has been presented with a question on the allowability of such costs. Because of that factor, we deem it necessary to discuss the subject of differing site conditions in some detail.

For a number of years, EPA regulations have required that a standard "differing site condition" clause be included in construction contracts entered into between a grantee and its construction contractors.[21/] Such a clause is included in the construction contract between SBSA and Dyn.

The clause, which is modeled on a similar clause frequently used in direct federal procurement contracts, calls for the contractor to promptly notify the grantee of (1) subsurface or latent physical conditions at the site which differ materially from

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20. See, for example, 40 CFR Part 35, Appendix A, Costs Related to Subagreements 1 f, 47 FR 20455, May 12, 1982, subsequently renumbered to 1 g, 49 FR 6248, February 17, 1984. We do not quarrel with the general proposition indicated though we sometimes have occasion to disagree with EPA over whether a particular grantee has satisfactorily carried out its responsibilities.

21. See 40 CFR Part 35, Appendix C-2, Required Provisions-Construction Contracts, Differing Site Conditions, 41 FR 56638, December 29, 1976.

those indicated in the contract between the grantee and the contractor, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally inhering in the types of work involved. The grantee is required to investigate the conditions. If he finds that differing site conditions do exist which increase the cost of the contractor's performance, the grantee must make an equitable adjustment in the contract price. At this point, though we will discuss the matter in some greater detail later on, we will note that the clause does not speak to the grant funding issue. As we have already noted, there are many project costs incurred by a grantee which do not receive federal funding. The mere fact that, as between grantee and contractor, a cost may be due to the contractor does not necessarily mean that the grantee will be reimbursed for that cost.

It is readily apparent that the clause speaks to two distinguishable types of differing site conditions. The first portion of the clause refers to subsurface or latent (not visible) physical conditions which differ materially from those conditions which the contractor was led to believe would be encountered and on which he based his bid. This type of condition is frequently referred to as a Type I or Category I differing site condition. In substance, the contractor has been misled to his detriment as to the nature of the conditions to be encountered and is obviously entitled to reasonable adjustment in his contract price. The second portion of the clause speaks to unknown, physical site

conditions which are of an unusual nature and which differ materially from those which would ordinarily be encountered in the type of work involved. This type of condition is frequently referred to as a Type II or Category II differing site condition. In substance, this portion of the clause speaks to a situation where unusual physical conditions are encountered, where neither the grantee nor the contractor knew or had reason to know that such conditions would be encountered, and where the contractor's cost of performance is thereby increased. Under the federal approach, the contractor is entitled to be paid for reasonable, additional costs in such circumstances.

Though, as between grantee and contractor, the contractor may be entitled to additional cost by reason of either a Type I or Type II differing site condition, the essential question still remains -- under what circumstances will federal grant funding be provided for costs associated with a differing site condition?

SBSA takes the apparent position that a dispute arose with Dyn over an alledged differing site condition, that this dispute was reasonably resolved with Dyn in accordance with federal regulations, and that full grant funding should be provided for the costs agreed to between SBSA and Dyn. Dyn takes a more extreme position. Dyn's position apparently is that if a differing site condition exists, regardless of whether it is a Type I or Type II condition and regardless of all other circumstances, federal regulations absolutely require grant funding of all contractor costs. We do not agree with either of the positions indicated. In our view there is no good reason to treat costs associated with

differing site conditions in a manner which is significantly different than the treatment given to other project costs.[22] That is, we believe that the general federal approach that the federal government will not grant fund costs which arise through the fault of any party or costs which could have been avoided by due care applies to differing site condition costs as well as to other project costs.

With respect to Dyn's contentions, it is not very difficult to imagine circumstances where it seems clear that the federal government would not grant fund project costs even though the costs, as between grantee and contractor, were differing site condition costs for which the contractor was entitled to payment. Suppose, for example, that a consultant for a grantee knowingly and intentionally misrepresented site conditions in the contract documents and, as a consequence, the original project failed. As between grantee and contractor, this would involve a Type I differing site condition. The contractor would be entitled to his costs and lost profits from the grantee. We do not think that there is the remotest possibility, however, that the federal government would grant fund the costs of the failed project under these circumstances. We think the same approaches and result would

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22. For the sake of clarity and completeness, we will note one distinction which does exist. Normally, the federal government does not grant fund increased contractor costs due to necessary rework, or contractor costs due to project delay or disruption or acceleration of work. There are only two basic exceptions to this approach of which we are aware -- circumstances completely beyond the control of the grantee, such as a governmentally mandated change in project objectives during the course of construction, and Type II differing site conditions.

obtain in certain Type II differing site condition situations. Suppose, for example, that actual subsurface conditions made the proposed site unsuitable for the proposed project but that the grantee and its consultants had not made a reasonable site inspection. Upon failure of the project, the contractor might well be entitled to costs and profits from the grantee but we do not believe the federal government would grant fund these costs.

Admittedly, we do not have clear, specific guidance from EPA on the subject of grant allowability of differing site condition costs. However, the indications which we do have are clearly inconsistent with Dyn's contention that federal regulations mandate grant funding of differing site condition costs regardless of the circumstances involved. The indications are also inconsistent with SBSA's concept that grant funding should necessarily be provided in cases where the grantee agrees to or is obligated to pay differing site condition costs to its contractor.

In the City of Flint, Michigan, Appeal, EPA Board of Assistance Appeals (BAA) did discuss differing site condition costs to some extent.[23/] In the Flint case, a dispute arose over alleged differing site conditions and costs associated therewith. In arbitration, it was determined that the contractor's contention that a differing site condition existed was correct and the contractor was awarded various additional costs, including some $2.1 million in damages for escalation and delay costs. EPA, Region V, refused to grant fund some $834,000 of these costs.

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23. City of Flint, Michigan, EPA Appeal No. 82-60, July 29, 1983. BAA is a special administrative tribunal established by EPA to hear and resolve audit disputes between EPA and grantees over allowable project costs.

On appeal, BAA reversed Region V in part but did uphold disallowance of about $434,000 in project costs on the ground that the City failed to use due care in mitigating the delay costs. In our estimation, this is just the application of the general rule that EPA will not grant fund project costs which should have been avoided by due care.

Turning now to the actual case before us, we address what we perceive to be the critical issue before us -- should grant funding be provided for the costs of the failed project attempted by SBSA and Dyn? We think the answer is no.

At the outset, we should remark that the SBSA project involved an unprecedented excavation in Bay Mud. All parties were aware that the work was to be accomplished in Bay Mud. All parties were, or should have been, well aware of the characteristics of Bay Mud, its relative instability, and the extreme care which must be exercised in deep excavation in Bay Mud. The method of attempting the excavation was basically an uncontrolled cut on a 2:1 slope. We consider the attempt, and the manner in which it was done, to have been unreasonable.

We, like DWQ, are inclined to place reliance on the Caltrans Report and analysis. That Report indicates the following opinions and conclusions:

1. On the basis of the original Cooper-Clark report, Caltrans would have selected design strength parameters of 280 psf cohesion and $\emptyset = 0$;
2. Their stability analysis indicates that an 18-foot depth in excavation would be the

maximum depth which could be accomplished on a 2:1 slope cut. It is their opinion that any excavation attempted on a 2:1 slope cut at depths greater than 18 feet carried with it a high degree of risk. In their opinion, the success of the excavation would have been questionable even if 4:1 slopes had been used;

3. They believe that Dyn's activities, particularly the surcharge imposed around the periphery of the excavation by Dyn, contributed to the excavation failure.

4. Their overall estimate, as we read it, is that the excavation failed because the soil strength was inadequate to support the excavation in the manner in which it was attempted and because of contractor activities at the site.

We accept the Caltrans conclusions.[24/] These conclusions fully support the DWQ decision. We also accept DWQ's decision to provide grant funding for those project costs which would have been incurred if the project had originally been designed and built at the higher elevation, thereby disallowing costs of the failed excavation but providing full grant funding for the reasonable costs of the project finally constructed.

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24. We should also note that we accept the conclusions indicated in the report of Woodward Clyde Consultants dated October 27, 1978, which to us indicates that the decision to attempt the excavation on the basis of an uncontrolled 2:1 slope cut did not provide an adequate degree of safety.

By way of final comments, we wish to note that this order is not intended to determine liability as between SBSA, its consultants and Dyn on the costs of the failure. Whether Dyn was legally entitled to rely upon the Cooper-Clark result, whether Dyn was itself legally responsible for determining how the work was to be accomplished, the extent to which Dyn's activities may have contributed to the failure,[25/] and who shall ultimately bear the costs involved in the failed work are all matters to be resolved by the parties themselves, not by this Board.

IV. FINDINGS AND CONCLUSIONS

Based upon the record before us and the foregoing discussion, we make the following findings:

1. Pursuant to delegated authority from EPA and this Board, a decision on Change Order No. 7, acceptable to this Board and in accordance with federal regulations, was made by the Division of Water Quality (DWQ) on March 20, 1980. That decision was communicated to SBSA on April 8, 1980. SBSA thereafter, for a period of almost four years, requested that further proceedings on the DWQ decision be abated and that no formal Board order be entered. The previous decision of DWQ should be ratified and confirmed.
2. Under existing EPA regulations, and guidance, grant funding will only be provided for project

25. We will comment that, insofar as grant funding is concerned, SBSA is responsible for the activities of Dyn and has a nondelegable duty to assure that improper contractor activities do not take place. See 40 CFR 30.210, 40 FR 20232, May 8, 1975.

costs which are reasonable and necessary. Grant funding will not be provided for costs which could have and should have been avoided by the exercise of due care;

3. Upon the facts of this case, the originally attempted excavation and the methods utilized involved an unreasonable degree of risk of failure;
4. Upon the facts of this case, the originally attempted excavation was undertaken without the requisite degree of care and attendant costs of the failed excavation are neither reasonable nor necessary;
5. Upon the facts of this case, it is appropriate for grant funding to be provided for those costs which would have been incurred if the project had originally been designed and built at the higher elevation.

Based on these findings, we conclude that the decision of DWQ was supported by substantial evidence, was appropriate, and should be ratified and confirmed at this time. The findings, conclusion, and determination made by this Order are subject to review by EPA. SBSA has the right to obtain EPA review of the appropriateness of this Order if they so desire.[26] This includes the right to a hearing and to offer such evidence as SBSA may believe supports a different determination.[27]

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26. See 40 CFR 35.940 and 35.960, 39 FR 5253, Feb. 11, 1974, as amended at 40 FR 20083, May 8, 1975; 40 CFR 30.1100 et seq. 40 FR 20232, May 8, 1975.

27. 40 CFR 30.1115, 40 FR 20232, May 8, 1975.

V. ORDER

IT IS HEREBY ORDERED that the decision of DWQ is hereby ratified and confirmed, and the petition of SBSA denied.

Dated: May 17, 1984

/s/ Carole A. Onorato
Carole A. Onorato, Chairwoman

/s/ Warren D. Noteware
Warren D. Noteware, Vice Chairman

/s/ Kenneth W. Willis
Kenneth W. Willis, Member

/s/ Darlene E. Ruiz
Darlene E. Ruiz, Member