

insurance policy with minimum coverage levels of \$300,000.00 per occurrence, combined single limit for bodily injury liability and property damage liability. The coverage shall include all State owned vehicles and all hired and non-owned vehicles used in performing under this Agreement.

Evidence of a self insurance program or a certificate of insurance shall be provided to the District at least ten (10) days prior to the start of work under this Agreement. Any policy shall contain a provision prohibiting the cancellation or modification of said policy except upon thirty (30) days prior written notice to the District.

C. Professional Liability.

If State or any of its employees is required to be professionally licensed or certified by any agency of the State of California in order to perform any of the work or services identified in Attachment A (Scope of Work), State shall cover such professional liability with a self insurance program or shall procure and maintain in force throughout the duration of this Agreement, a professional liability insurance policy with a minimum coverage level of \$1,000,000.00. Evidence of the self insurance program or proof of such insurance shall be provided to District at least ten (10) days prior to the start of any work by State.

10. STATUS OF STATE:

All acts of State, its agents, officers, and employees, relating to the performance of this Agreement, shall be performed as independent contractors, and not as agents, officers, or employees of District. State, by virtue of this Agreement, has no authority to bind or incur any obligation on behalf of District. Except as expressly provided in Attachment A, State has no authority or responsibility to exercise any rights or power vested in the District. No agent, officer, or employee of the District is to be considered an employee of State. It is understood by both State and District that this Agreement shall not under any circumstances be construed or considered to create an employer-employee relationship. As an independent contractor:

A. State shall determine the method, details, and means of performing the work and services to be provided by State under this Agreement.

B. State shall be responsible to District only for the requirements and results specified in this Agreement, and except as expressly provided in this Agreement, shall not be subjected to District's control with respect to the physical action or activities of State in fulfillment of this Agreement.

C. State, its agents, officers, and employees are, and at all times during the term of this Agreement shall, represent

and conduct themselves as independent contractors, and not as employees of District.

11. DEFENSE AND INDEMNIFICATION:

State shall defend, indemnify, and hold harmless District, its agents, officers, and employees from and against all claims, damages, losses, judgments, liabilities, expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with, the performance of this Agreement by State, or State's agents, officers, or employees. State's obligation to defend, indemnify, and hold the District, its agents, officers, and employees harmless applies to any actual or alleged personal injury, death, or damage or destruction to tangible or intangible property, including the loss of use. State's obligation under this paragraph extends to any claim, damage, loss, liability, expense, or other costs which is caused in whole or in part by any act or omission of the State, its agents, employees, supplier, or any one directly or indirectly employed by any of them, or anyone for whose acts or omissions any of them may be liable.

State's obligation to defend, indemnify, and hold the District, its agents, officers, and employees harmless under the provisions of this paragraph is not limited to, or restricted by, any requirement in this Agreement for State to procure and maintain a self insurance program or a policy of insurance.

To the extent permitted by law, District shall defend, indemnify, and hold harmless State, its agents, officers, and employees from and against all claims, damages, losses, judgments, liabilities, expenses, and other costs, including litigation costs and attorney's fees, arising out of, or resulting from, the active negligence, or wrongful acts of District, its officers, or employees.

12. RECORDS AND AUDIT:

A. Records.

State shall prepare and maintain all records required by the various provisions of this Agreement, federal, state, and municipal law, ordinances, regulations, and directions. State shall maintain these records for a minimum of four (4) years from the termination or completion of this Agreement. State may fulfill its obligation to maintain records as required by this paragraph by substitute photographs, microphotographs, or other authentic reproduction of such records.

B. Inspections and Audits.

Any authorized representative of District shall have access to any books, documents, papers, records, including, but not limited to, financial records of State, which District determines to be pertinent to this Agreement, for the purposes of making audit, evaluation, examination, excerpts, and

construed to be a modification of the terms of this Agreement unless this Agreement is modified as provided in paragraph twenty-four (24) below.

18. CONFIDENTIALITY:

State agrees to comply with the various provisions of the federal, state, and county laws, regulations, and ordinances providing that information and records kept, maintained, or accessible by State in the course of providing services and work under this Agreement, shall be privileged, restricted, or confidential. State agrees to keep confidential all such information and records. Disclosure of such confidential, privileged, or protected information shall be made by State only with the express written consent of the District.

19. CONFLICTS:

State agrees that it has no interest, and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of the work and services under this Agreement.

20. SEVERABILITY:

If any portion of this Agreement or application thereof to any person or circumstance shall be declared invalid by a court of competent jurisdiction, or if it is found in contravention of any federal, state, or county statute, ordinance, or regulation, the remaining provisions of this Agreement, or the application thereof, shall not be invalidated thereby, and shall remain in full force and effect to the extent that the provisions of this Agreement are severable.

21. FUNDING LIMITATION:

A. The ability of District to enter this Agreement is based upon available funding from various sources. In the event that such funding fails, is reduced, or is modified, from one or more sources, District has the option to cancel, reduce, or modify this Agreement, or any of its terms within ten (10) days of its notifying State of the cancellation, reduction, or modification of available funding. Any reduction or modification of this Agreement made pursuant to this provision must comply with the requirements of paragraph twenty-three (23) (Amendment).

B. This agreement shall not be effective until it has been approved by the Department of General Services.

22. ATTORNEY'S FEES:

If either of the parties hereto brings an action or proceeding against the other, including, but not limited to, an action to enforce or declare the cancellation, termination, or revision of the Agreement, the prevailing party in such action or proceeding

shall be entitled to receive from the other party all reasonable attorney's fees and costs incurred in connection therewith.

23. AMENDMENT:

This Agreement may be modified, amended, changed, added to, or subtracted from, by the mutual consent of the parties hereto, if such amendment or change is in written form and executed with the same formalities as this Agreement, and attached to the original Agreement to maintain continuity.

24. NOTICE:

Any notice, communication, amendments, additions, or deletions to this Agreement, including change of address of either party during the terms of this Agreement, which State or District shall be required, or may desire, to make, shall be in writing and may be personally served, or sent by prepaid first class mail to, the respective parties as follows:

Great Basin Unified Air Pollution Control District
157 Short Street, Suite 6
Bishop, California 93514

State Lands Commission
1807 13th Street
Sacramento, California 95814

25. DESIGNATION OF PROJECT REPRESENTATIVE:

The Commission and District hereby name a representative to the management team who shall represent his or her agency during the term of this MOA. Each agency may change its representative by notifying the other agency as provided for in Paragraph 28.

COMMISSION'S REPRESENTATIVE SHALL BE:
Steve Sekelsky

DISTRICT'S REPRESENTATIVE SHALL BE:
Ted Schade

26. ENTIRE AGREEMENT:

This Agreement contains the entire agreement of the parties, and no representations, inducements, promises, or agreements otherwise between the parties not embodied herein or incorporated herein by reference, shall be of any force or effect. Further, no term or provision hereof may be changed, waived, discharged, or terminated, unless the same be in writing executed by the parties hereto.

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AGREEMENT BETWEEN
GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
AND STATE OF CALIFORNIA, STATE LANDS COMMISSION
FOR THE PROVISION OF
RESEARCH AND DEVELOPMENT SERVICES

IN WITNESS THEREOF, THE PARTIES HERETO HAVE SET THEIR HANDS
AND SEALS THIS _____ DAY OF _____, 19 ____.

DISTRICT

State

By: _____

By: _____

Dated: _____

Dated: _____

APPROVED AS TO FORM AND
LEGALITY:

District Counsel

APPROVED AS TO ACCOUNTING
FORM:

County Auditor

ATTACHMENT A

AGREEMENT BETWEEN
GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
AND STATE OF CALIFORNIA, STATE LANDS COMMISSION
FOR THE PROVISION
RESEARCH AND DEVELOPMENT SERVICES

TERM:

FROM: May 1, 1992

TO: April 30, 1995

SCOPE OF WORK:

PARTIAL MITIGATION OF PM-10 DUST EPISODES
THROUGH CONTROL OF SALTATING PARTICLES AND REDUCTION OF WIND
SHEAR, 1992-1993

April 28, 1992

TASK 1 - SAND DUNE ARRAY FIELD TESTS

1. Construction

a. 1992 Small-Scale Array

In the summer of 1992, the State Lands Commission (SLC) shall cause to be designed and constructed a small-scale sand dune test array to test the effectiveness of sand dunes and sand fences in controlling sand migration and PM-10 emissions from Owens Lake. The small-scale test array shall be located on the southern portion of the lake near the 1981-82 WESTEC sites (see Figure 3, Pg. 8) and shall contain at least 3900 feet of sand fence arranged in a staggered array covering an area at least 820 feet by 1300 feet. All material purchased and labor contracted shall conform to standard State Lands Commission contracting and bid procedures. SLC or its subcontractor shall establish a construction and data collection field office in the south end of the Owens Valley. The final configuration and location of the small-scale test array and the fence design shall be presented to GBUAPCD for their review and comments prior to any construction.

b. 1993 Large-Scale Arrays

MINUTE PAGE	101.10
MINUTE PAGE	11.25

In the summer of 1993, the SLC or its contractor shall cause to be designed and constructed large-scale sand dune test arrays to test the effectiveness of sand dunes and sand fences in controlling sand migration and PM-10 emissions from Owens Lake. The specific design and location of the large-scale array shall be based on the results of the small-scale test. The array will be designed to reduce sand migration on the southern sand sheet from the Dirty Socks Well wash to the western stream courses. The large-scale test shall contain at least 12,000 feet of sand fence in staggered lines arranged in an array at least 1 mile long (see Figure 3, Pg. 8). However, if the small-scale test show that it is necessary, much larger amounts of fencing may be emplaced. There may also be smaller lines of fences consisting of roughly parallel lines of staggered fences approximately in the same area.

Four linear, staggered arrays will be constructed at locations upwind and downwind of the block array. The purpose of these arrays is to start to set the parameters for spacing arrays at Owens Lake to optimized a sand capture per dollar. Each array will be approximately 4,000 feet long with adequate randomization in length and placement to present a quasi-natural dune field when filled. Spacing between arrays will be roughly 2,600 feet, depending on terrain and earlier tests. All material purchased and labor contracted shall conform to SLC contracting and bid procedures. The final configuration and location of the large-scale test arrays shall be presented for review and comment to the GBUAPCD prior to any construction.

2. Instrumentation

All test arrays shall contain the types and amounts of data collection devices necessary to determine the effectiveness of sand dune arrays at controlling PM-10 emissions. Data to be collected shall include, but shall not necessarily be limited to wind speed, wind direction, air temperature, relative humidity, precipitation, sand movement, air quality (PM-10 levels), surface crust conditions, groundwater levels, groundwater chemistry, soil chemistry, soil surface erosion/deposition, sand dune stratigraphy, sand dune growth rates, and sand dune stability. Instrumentation types, amounts, and locations shall be presented for review and comments to GBUAPCD prior to any equipment purchases.

3. Data Collection

Sufficient manpower resources shall be provided to collect the data necessary to determine the effectiveness of sand dune arrays at reducing PM-10 emissions. In addition to PM-10 related data, data shall also be collected to determine the

101.11
1993

effect of sand dune arrays on the shallow groundwater table using piezometers within the dune array. A data collection protocol shall be provided that addresses, in detail, the procedures for collecting the data discussed above. This protocol shall be presented for review and comments to GBUAPCD prior to any construction. GBUAPCD may request raw data for review at any time.

4. Data Analysis

The proper type and amount of data analysis necessary to determine the effectiveness of sand dune arrays at reducing PM-10 emissions shall be conducted. Data analysis shall be conducted as per a data analysis protocol to be developed by SLC or its Contractor and presented for review and comment to GBUAPCD prior to any data collection. Drafts of all data analyses shall be submitted to GB for review and comment.

5. Maintenance

All approved sand fence materials and data collection equipment shall be maintained in working order. All materials and equipment shall be adequately anchored and secured. Upon completion of the test all equipment and material shall be removed from the lake bed and properly disposed of. This includes all sand fence materials if required by SLC.

6. Environmental Mitigation

A Negative Declaration (ND) under the provisions of the California Environmental Quality Act (CEQA) has been issued for this project by SLC. The mitigation measures called for in the approved ND that affect the sand dune project shall be implemented by SLC. Mitigation measure monitoring shall occur as per a monitoring plan to be adopted by SLC. The agency responsible for monitoring shall be decided at a later date.

7. Schedule

The small-scale array fences shall be in place by October 31, 1992. All monitoring equipment for the small-scale test shall be in place and operational by October 31, 1992. Data collection on the small-scale array will continue at least until January 1, 1994. The large-scale array fences and monitoring equipment shall be in place and operational by October 1, 1993. Data collection on the large-scale arrays will continue at least until April 30, 1994. For the small-scale array, the quarterly project status reports will be prepared and submitted to GBUAPCD on October 1, 1992; January 1, 1993; April 1, 1993; July 1, 1993; and October 1, 1993. A draft data analysis report will be submitted on November 1, 1993 and draft final report will be submitted on January

101.12
1 - 101 -

1,1994. For the large-scale array, the quarterly reports will be submitted on the same schedule, but in 1994 and 1995. A draft data analysis report for the large scale array will be submitted November 1, 1994, and the final report will be submitted on January 1, 1995.

TASK 2 - OPTIMIZED AND ENGINEERING OF SAND FENCE MATERIALS AND DESIGN

1. Analysis of Field Acquired Meteorological Data

All field acquired meteorological data shall be properly reduced and estimates of surface friction speed and surface roughness shall be provided.

2. Sand Fence Design - Conceptual

All previous field installations of sand fences on Owens Lake will be examined and reported on. Wind tunnel tests to be conducted per a separate contract will be used to develop the optimum parameters for the sand fence manufacturers, and other sand fence investigators will be conducted.

3. Sand Fence Design - Engineering

Field and laboratory tests necessary to establish the principle sand fence engineering parameters will be conducted and a sand fence design will be generated. The design parameters to be developed will include: fence height, distance between support posts, post embedment depth, fence porosity, fence post, guy and anchor materials, fence orientation, and fence shape. The location of any field testing to be performed shall be submitted for review and comment to GBUAPCD prior to any field work.

4. Lake Bed Access

Preliminary investigations regarding provision of all-weather access to all mitigation areas on the lake will be conducted. This will include collection of representative samples of the native soils found on Owens Lake and laboratory stabilization testing.

5. Schedule

The work described in this task shall be completed by October 15, 1993. All raw data collected can be requested by GBUAPCD at any time. Drafts of all data analysis shall be submitted to GBUAPCD for review and comment.

101.13
1993

TASK 3 - NATIVE VEGETATION, SOIL AND WATER SURVEY

1. Study Site Selection

Study areas will be selected and will include natural dune areas and artificial dune areas. These sites will be submitted to GBUAPCD for review and comment prior to initiation of any field work.

2. Species Inventory

A species list will be made for each dune or dune system according to micro habitants present (dune top, dune margin, and interdune depressions). Quantitative data on species present will be developed. This will include, but is not limited to, cross section profiles, percentage cover, and species frequency.

3. Dune Morphology and Composition

Dune height, length, width, and shape will be recorded for each study area. Core samples of selected dunes will be collected and analyzed. Analyses will include, but are not limited to, particle size, pH, electrical conductivity, moisture content, organic matter and sulfate, carbonate, and nitrate levels.

4. Vegetation Composition Analysis

Representative plant samples will be collected and analyzed. Analyses will include, but are not limited to, ions of sodium, calcium, magnesium, chloride, boron, sulfate, and carbonate.

5. Seed Dispersal Study

Seasonal variability of seeds between the barren playa and dune sites and between open areas and beneath vegetation canopies will be compared. Random soil samples will be collected from each type of area of interest, seeds present in the samples will be germinated and identified.

6. Report Preparation

A report will be prepared that addresses the study's main objectives. These include, but are not limited to, qualitative and quantitative descriptions of dune vegetation on and around the playa, and comparisons of these species compositions with the surrounding non-dune salt bush communities. The report will also describe the

101.14
1985

physical and chemical characteristics of sand dunes as they bear upon vegetation, and determine any correlation between species composition and dune characteristics. The report will also investigate the seeds and seed dispersal on and around the playa.

7. Schedule

The work described in this task shall be completed by October 15, 1993. All raw data collection may be requested at any time by the GBUAPCD. Drafts of all data analyses shall be submitted to GB for review and comment.

101.15
1993

COST BY TASK

Large and Small Scale

Task 1 - Sand Dune Array Field Test

1. Personnel	\$36,000
2. Equipment**	\$ 5,200
3. Subcontractors	
a. Fencing materials	\$46,000
b. Construction labor	\$28,000
4. Travel	\$ 9,000
5. Supplies, Dust analysis	<u>\$ 8,000</u>
Total, Task 1	\$132,200

Task 2 - Optimization and Engineering

1. Personnel	\$22,000
2. Equipment	-0-
3. Subcontractors	
a. Fencing materials	\$ 3,000
b. Construction labor	\$ 3,000
4. Travel	\$ 2,500
5. Supplies	<u>\$ 3,087</u>
Total, Task 2	\$33,587

Task 3 - Nature Vegetation

1. Personnel	\$ 6,000
2. Travel	\$ 2,500
3. Supplies	<u>\$ 2,500</u>

Total, Task 3	\$11,000
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TOTAL OF ALL TASKS	\$176,787
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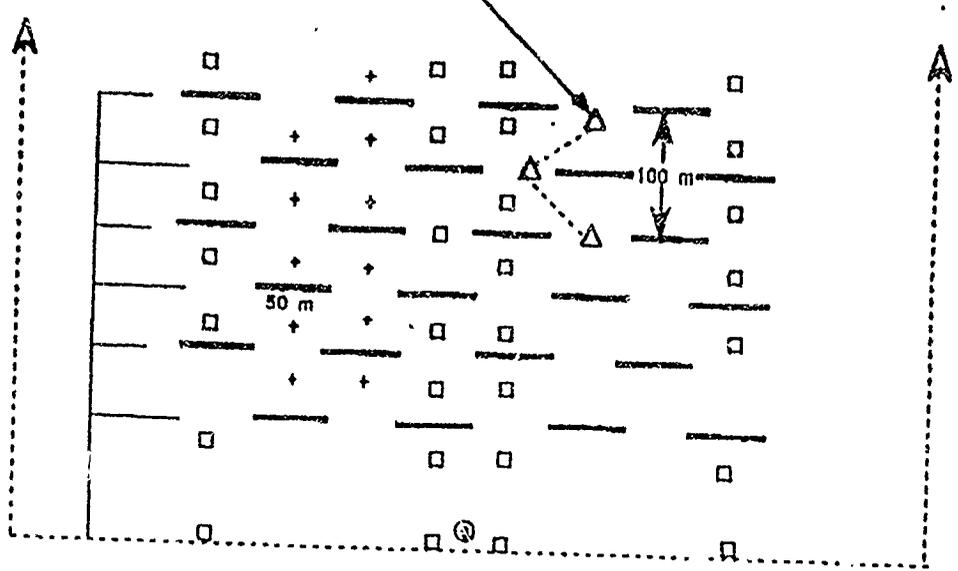
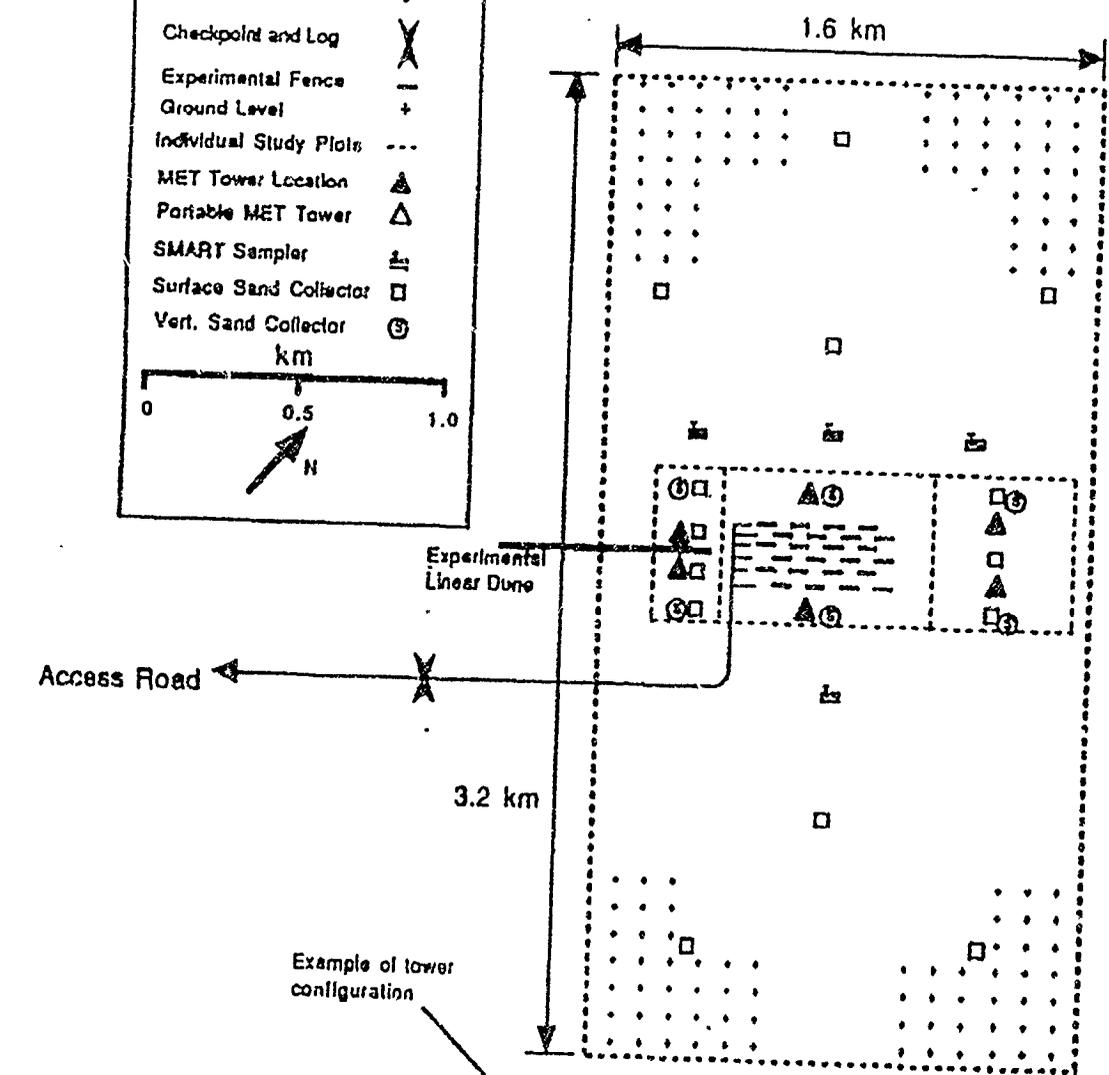
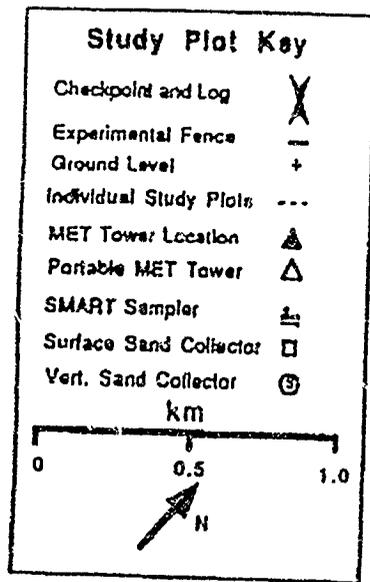
Coordination - State Lands Commission	\$ 6,500
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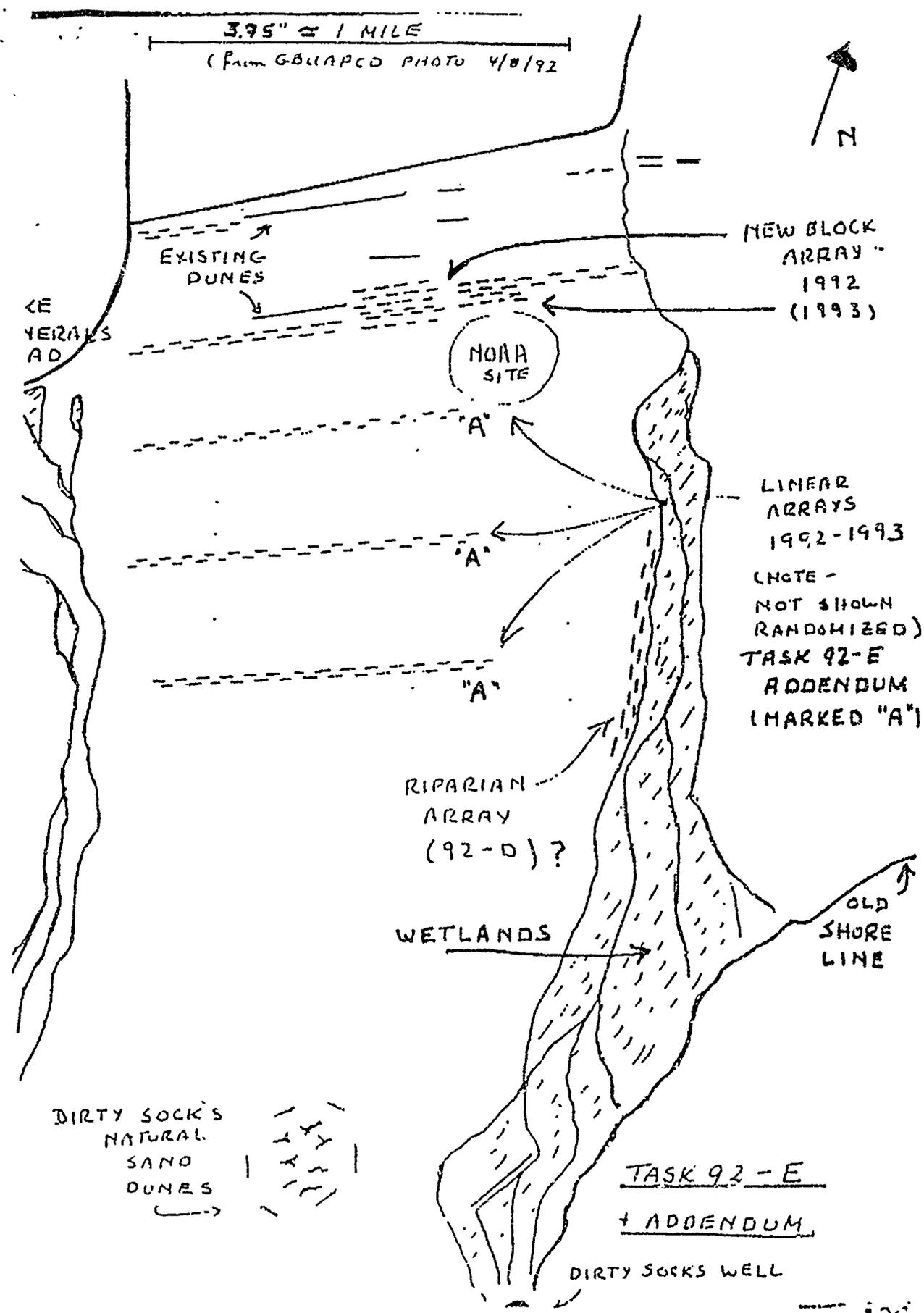
TOTAL DIRECT COSTS	\$187,287
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Indirect Costs
(Items ** not subject to Indirect Costs)

10% of 167,087 = \$16,709	\$16,709
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PROJECT TOTAL	\$199,996
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3.95" = 1 MILE
 (From GBUAPCO PHOTO 4/8/92)



CE
 YERALS
 AD

EXISTING
 DUNES

NEW BLOCK
 ARRAY
 1992
 (1993)

NOAA
 SITE

LINEAR
 ARRAYS
 1992-1993

(NOTE -
 NOT SHOWN
 RANDOMIZED)
 TASK 92-E
 ADDENDUM
 (MARKED "A")

"A"

"A"

"A"

RIPARIAN
 ARRAY
 (92-D)?

WETLANDS

OLD
 SHORE
 LINE

DIRTY SOCK'S
 NATURAL
 SAND
 DUNES



TASK 92-E
+ ADDENDUM

DIRTY SOCKS WELL

10219
 1992

BUDGET SUMMARY

DIRECT COSTS:

1. Labor	\$56,544	
2. Subcontractors/Consultants	30,000	
	6,500	
3. Equipment	5,200	
4. Travel & Subsistence	13,920	
5. Electronic Data Processing		
6. Reproduction & Publication	1,500	
7. Mail & Telephone	1,000	
8. Materials & Supplies	54,595	
9. Analyses	2,300	
10. Miscellaneous	4,500	
Total Direct Cost	<u>176,059</u>	<u>\$ 176,059</u>

INDIRECT COSTS:

11. Employee Fringe Benefits	7,228	
12. Other Indirect Costs	15,986	
Total Indirect Cost	<u>23,937</u>	<u>\$ 23,937</u>

TOTAL PROJECT COST	<u> </u>	<u>\$ 199,996.</u>
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101,20
1985

BUDGET DETAIL

Direct Costs:

1.	Labor Charges			
	Direct Labor	Monthly Salary	No. Months	Total Salary
A.	T.A. Cahill	\$2,175./wk	1 week	\$ 2,175
B.	M. Taylor	1,950./wk	6 weeks	11,700
C.	T.E. Gill	2,185./mo	6 months	6,555
D.	J.S. Reid	2,185./mo	6 months	6,555
E.	M.L. Yau	2,185./mo	6 months	6,555
F.	H. Cho	2,185./mo	6 months	6,555
G.	Research Asst.	2,072./mo	7 months	9,324
H.	Student Assts.	4.75./hr	1500 hours	7,125

SUBTOTAL, \$56,544

2. Subcontractors & Consultants Estimated Cost

A. Contractor - Fence Construction \$30,000

1. Local Contractor must have California Contractor's License.

a. Maintain secure area(s) for storage of fences, etc.

b. Supply vehicle suitable for:

- (1). Work on lake bed
- (2). Capable of carrying fence, tools and personnel.

c. Supply operator for vehicle:

- (1). Estimated days: 180 days
- (2). Work hours: 1,440 hours

d. Supply safety equipment, communications equipment, etc.

e. Supervisor of operator - 20% time

- (1). Estimated days: 180 days
- (2). Work hours: 288 hours

B. Administration - State Lands Commission 6,500

Public Trust at Owens Lake and Dust Nuisance Abatement: \$6,500.

SUBTOTAL \$36,500

102 .21
1933

3.	Equipment	Estimated Cost
A.	All Terrain Vehicle - 4 wheel	\$ 1,800
B.	Trailer For ATV	600
C.	Electric Winch, etc. - On Lake	400
D.	Meteorological Equipment (add-on to equipment on loan to project. See also ARB contract #132-105)	2,400
	SUBTOTAL	<u>\$ 5,200</u>
4.	Travel & Subsistence	Estimated Cost
A.	Air Transportation (none)	
B.	Ground Transportation	
	1. Round trips to Owens Lake 600 miles @ 0.24/mi -\$144 x 15 trips	\$ 2,160
	2. Transportation at Owens Lake UC car rental for 6 months.	2,600
C.	Per Diem or Subsistence 160 days @ \$26/day	4,160
D.	Other - Rental of housing (replaces housing)	5,000
	SUBTOTAL	<u>\$13,920</u>
5.	Electronic Data Processing	Estimated Cost
A.	Computer Usage	\$ 0
	SUBTOTAL	<u>\$ 0</u>
6.	Reproduction & Publication	Estimated Cost
A.	Progress Reports/Final Report	\$ 1,500
	SUBTOTAL	<u>\$ 1,500</u>
7.	Mail & Telephone	Estimated Cost
A.	Telephone At Lone Pine	\$ 800
B.	Mail Costs	200
	SUBTOTAL	<u>\$ 1,000</u>

8.	Materials & Supplies	Estimated Cost
A.	Sand Fencing, Posts, Cable, etc.	\$50,000
B.	Film, Optical Support	800
C.	Hardware, etc.	900
D.	Materials For Sand Traps, Vehicle Tow	2,105
E.	Safety Equipment (Helmets, etc.)	200
F.	Miscellaneous Supplies	590

SUBTOTAL \$54,595

9.	Analyses	Estimated Cost
A.	Compositional Analysis - Aerosols	\$ 1,700
B.	Compositional Analysis - Water, etc.	600

SUBTOTAL \$ 2,300

10.	Miscellaneous	Estimated Cost
A.	Graduate Student Fee Remission	\$ 4,500

SUBTOTAL \$ 4,500

TOTAL DIRECT COSTS \$176,059

Indirect Costs:

11.	Employee Fringe Benefits	Estimated Cost
A.	Employee Benefits	\$ 7,228
	SUBTOTAL	<u>\$ 7,228</u>

12. Indirect Costs

(Based on modified total direct costs [MTDC] basis where MTDC = direct cost less equipment.

Rate 0.10 x MTDC 167,087.* = \$16,709

*Overhead does not apply to items 3 (Equipment) and 10 (Graduate Student Fee Remission), and partial item 2 (SLC administration).

	SUBTOTAL	<u>\$16,709</u>
	TOTAL INDIRECT COST	<u>\$16,709</u>
	TOTAL PROJECT COST	<u>\$199,996</u>

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1753

ATTACHMENT B

AGREEMENT BETWEEN
GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
AND STATE OF CALIFORNIA, STATE LANDS COMMISSION
FOR THE PROVISION OF
RESEARCH AND DEVELOPMENT SERVICES

TERM:

FROM: May 1, 1992

TO: April 30, 1995

SCHEDULE OF FEES AND PAYMENT:

Great Basin Unified Air Pollution Control District shall pay the State of California, State Lands Commission the sum of fifty thousand dollars (\$50,000) for the final data analysis reports resulting from the work described in Attachment A. Payment shall be made in a lump sum and will be paid within thirty (30) days of receipt of the funds from the City of Los Angeles Department of Water and Power

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1.35