

APPENDIX J

1964 Agreement between the City of Santa Cruz and the Quarry Operator

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A G R E E M E N T

THIS AGREEMENT, made and entered into this 1st day of December, 1964, by and between the City of Santa Cruz, a municipal corporation, hereinafter referred to as City, and Pacific Cement & Aggregates, Inc., a corporation, hereinafter referred to as PCA:

WHEREAS, PCA has been granted an application by the County of Santa Cruz for a use permit to operate a quarry in the Bonny Doon area, which quarry operation will be located within the spring recharge area of Liddell Spring, a City water source; and

WHEREAS, City contends that the operation of said quarry at the proposed location may have an adverse effect upon said water supply, and PCA contends that the operation of said quarry will not have an adverse effect upon said water supply; and

WHEREAS, PCA is willing to indemnify City against diminution of quantity or deterioration of quality of the water issuing from said Liddell Spring to the extent that such diminution or deterioration is proximately caused by PCA's quarry operations in the spring recharge area in consideration of the covenant by the City not to contest the operation of said quarry.

NOW, THEREFORE, IT IS AGREED by and between the parties hereto as follows:

1. City agrees not to contest the operation of said quarry, by litigation or otherwise, and

PCA agrees to indemnify City against diminution of quantity or deterioration of quality of the water obtained by City from Liddell Spring to the extent that such diminution of quantity or deterioration of quality is proximately caused by the quarry operation of PCA on its property lying within the spring recharge area of Liddell Spring. The terms and scope of PCA's indemnity are particularly hereinafter set forth.

2. In order to determine whether said quarry operation is the efficient cause of any future diminution in the quantity of water or any future deterioration in the quality of water produced from said spring or whether such diminution or deterioration is due to natural or human causes beyond its control, PCA agrees to establish and maintain at its own sole expense a program for testing the quantity and quality of the water entering the underground water saturation zone in the area owned by PCA lying northerly of said spring.

3. To implement such testing program, PCA agrees:

(a) To establish prior to the commencement of and to maintain at all times during the continuance of said quarry operations not less than six observation wells at least three inches in diameter drilled to depths below the minimum elevations of water saturation,

said wells to be located and maintained approximately at the six locations marked in orange and designated B D #40 through B D #45 on the map attached hereto marked Exhibit A and by reference made a part hereof. Substitute observation wells shall be drilled in the same general location of any observation well which in the opinion of a qualified hydrologist does not properly indicate typical water conditions in the zone of saturation. A field survey of such observation wells shall be furnished to City.

(b) To take and record monthly depth-to-water measurements in each of said observation wells before and during the continuance of said quarrying operations. The techniques employed in taking said measurements shall be in accord with recognized hydrological methods of measuring underground water tables, and the City shall be entitled to have a representative present to observe the taking of all such measurements and shall be entitled to copies of the results of the same.

(c) To establish as soon hereafter as conveniently possible and to maintain a rainfall measurement station at or near the Bonny Doon Quarry site, the exact location to be fixed by agreement of the parties and to keep

and record at said station accurate daily rainfall records up to and during the continuance of the operation of the quarry and to furnish City with copies of the same upon request.

(d) To take samples of water from each of said observation wells and to test the same for quality at least once every four months until relationships have been established between the quality of said underground water, the rainfall in the area, and the water produced from said spring, and thereafter such sampling and testing shall be maintained at six-month intervals during the continuance of said quarrying operations, except, during periods when contamination is suspected, sampling and testing may be increased in frequency as deemed necessary. The techniques employed in the testing of the quality of said underground water shall be equivalent to those employed in testing the water from said spring. The City shall be entitled to have a representative present to observe such sampling, shall be entitled to be furnished with a portion of each water sample to be tested, and to receive a copy of the results of all such tests.

(e) The drilling of said wells and the taking of said water quantity and quality measurements and tests shall be commenced in

advance of the commencement of said quarry operations in an effort to establish relationships between the quantity of the water in the zone of saturation, the rainfall in the area, and the quantity of production from said spring and to establish relationships between the quality of said underground water, the rainfall in the area, and the water produced from said spring.

(f) For the purpose of implementing this agreement, PCA agrees to provide City with all hydrological data which it has or which may come into its possession regarding the underground waters of its Bonny Doon quarry area, and City agrees to provide PCA with all of the quantity and quality data which it has or which comes into its possession regarding the waters of Liddell Spring.

4. To assist in said testing program and in establishing such relationships, City agrees:

(a) To continue to maintain quantity production measurements of said Liddell Spring on a monthly basis and to furnish copies of said records to PCA. PCA shall be entitled to have a representative present to observe the taking or the reading of all such quantity measurements. PCA shall also be entitled at its own expense to test the accuracy of the

City's water measuring devices.

(b) To take samples of water from said spring and to test the same for quality at least twice each month and daily following periods of heavy rainfall until the waters from said spring shall be found to be free from surface water contamination. Said testing program shall continue for a period of five years from the date hereof or until the commencement of quarry operations, which PCA agrees will not commence less than two years from the date hereof, whichever shall first occur in order to establish relationships under natural conditions between the quality of said spring water, the rainfall in the area and the underground waters beneath PCA's quarry site. Thereafter such sampling and testing shall be maintained at six-month intervals, except, during periods when contamination is suspected, sampling and testing may be increased in frequency as deemed necessary. PCA shall be entitled to have a representative present to observe such sampling, shall be entitled to be furnished with a portion of each water sample to be tested and to receive a copy of the results of all such tests.

5. (a) From past measurements by the City by the flow meter in the Liddell Spring pipeline, of the quantity of water flowing from said

spring, it appears that the following monthly amounts constitute minimum flows under natural conditions for each month specified, and for the purpose of determining whether the quantity of water flowing from said spring has been adversely affected as the result of PCA's quarry operations, the following monthly amounts shall be deemed minimums unless modified as hereinafter provided:

July	31 million gallons
August	28 million gallons
September	27 million gallons
October	27 million gallons
November	25 million gallons
December	31 million gallons
January	25 million gallons
February	30 million gallons
March	33 million gallons
April	31 million gallons
May	33 million gallons
June	32 million gallons

The foregoing minimum quantity standards shall be modified downward for any month or months in which it is determined as the result of said quantity measurements continuing over a period of five years from the date hereof or until the commencement of quarry operations, whichever shall first occur, that any of the minimum monthly flows of water from said spring under natural conditions is less than the foregoing standards.

(b) If after commencement of PCA's quarry operation the quantity of water flowing from said spring is less than the aforesaid

minimum in any month, it will be presumed that such decrease in flow has been caused by PCA's quarry operations unless in the opinion of qualified groundwater hydrologists selected by the City and PCA the cause of such decrease in quantity is due to conditions beyond the control of PCA. If such hydrologists are unable to agree upon the cause of such decrease in quantity, they shall select a third hydrologist to investigate and determine such cause whose opinion shall be conclusive upon the parties hereto. When the cause of such decrease in quantity has been determined to be beyond the control of PCA in any one month, such determination shall be presumed to continue for so long as the causative condition remains.

(c) For each month that the quantity of water flowing from said spring is reduced below the aforesaid minimums as the result of PCA's quarrying operations, PCA shall compensate City at the rate of \$100.00 per million gallons of such decrease or any prorated fraction thereof.

6. (a) For the purpose of determining whether the quality of the water flowing from said Liddell Spring has been adversely affected by PCA's quarry operations, the following minimum

standards shall be deemed to be the standards existing on the date thereof, unless modified as hereinafter provided.

(1) Bacteria: The most probable number of coliform organisms per 100 ml sample (MPN) shall be less than 4.5 except immediately following a rain, when it shall not exceed 25 for a period of 48 hours.

(2) Turbidity: Turbidity shall not exceed 0.5 standard turbidity units except immediately following a rain, when it shall not exceed 2.0 standard turbidity units for a period of 48 hours.

(3) Color: Color of the water shall be less than 5 milligrams per liter.

(4) Taste and Odor: The threshold odor number of water shall not exceed 2.

(5) Chemicals: The limits for the following shall not exceed:

Iron	0.03 milligrams per liter
Manganese	0.01 milligrams per liter
Sulphites	To be determined by tests made by City under Paragraph 4 (b)
Organic materials	To be determined by tests made by City under Paragraph 4 (b)
Nitrates	U. S. Public Health Service drinking water standards

The foregoing minimum quality standards shall be modified in the event that it is determined as the result of the aforesaid continuing

quality tests under natural conditions that any standard should be less stringent or that the period of quality recovery from high bacteria count or high turbidity following a rainfall is longer under natural conditions than set forth above.

(b) If during any month the quality of the water flowing from said spring shall deteriorate below any of the quality criteria as so determined, it shall be presumed that such deterioration was caused by PCA's quarrying operations unless in the opinion of qualified groundwater hydrologists selected by the City and PCA the cause of such deterioration in quality is due to conditions beyond the control of PCA. If such hydrologists are unable to agree upon the cause of such deterioration in quality, they shall select a third hydrologist to investigate and determine such cause, whose opinion shall be conclusive upon all of the parties hereto.

(c) In the event that such deterioration in the quality of the water flowing from said spring is determined to have been caused by PCA's quarrying operations, PCA agrees to remove or rectify, and to continue to remove or rectify, such causes of contamination immediately upon notification by City. During

the period of such contamination, PCA shall indemnify City at the rates set forth in Paragraph 5 (c) for the water lost to City as the result of such contamination. If said contamination has not been rectified within six months, PCA agrees to pay City the cost of providing or implementing facilities to rectify the particular deterioration in accordance with the following sub-paragraphs:

(1) Bacteria: A chlorination station at Liddell Spring;

(2) Turbidity: For turbidities less than 25 standard turbidity units a diatomite filter plant shall be established near the junction of Liddell and Laguna pipelines; for turbidities exceeding 25 standard turbidity units a plant with alum coagulation and pH adjustment shall be established at said location;

(3) Taste and Odor and Sulphites: An oxidation facility shall be established at Liddell Spring capable of feeding potassium permanganate or chlorine dioxide;

(4) Iron and Manganese: An oxidation facility followed by filtration located near the junction of Liddell and Laguna pipelines;

(5) Color: For removal of the color in water, a plant shall be provided with

alum coagulation, filtration, and
pH adjustment.

7. If the method of rectifying the particular cause of contamination is not hereinabove provided for, or if any of the above rectification techniques become obsolete, the method of rectifying the condition shall be determined by qualified hydrologists selected by the parties, and if such hydrologists are unable to agree upon such rectifying technique, they shall select a third hydrologist to determine the proper technique, whose opinion shall be binding upon the parties. If the parties disagree as to the reasonable cost to the City of rectifying a particular contamination, the reasonable cost thereof shall similarly be determined by arbitration.

8. PCA agrees that no open pit toilets, septic tanks or sumps for the disposal of waste, human or otherwise, shall be installed or maintained upon any portion of its Bonny Doon quarry area.

9. PCA further agrees that during its quarry operations it will take all reasonable steps to divert any surface waters from flowing out of its quarry into the spring area.

10. Both parties agree that if any dispute arises as to the rights or duties of the respective parties hereunder, such dispute shall be settled by arbitration, one arbitrator to be selected by the City and one by PCA and if said two arbitrators cannot agree, they shall select a third arbitrator and the decision

of the majority shall be final and conclusive upon the parties. If the point of difference involves technical points in the science of hydrology, the arbitrators so selected shall be qualified hydrologists.

IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.

PACIFIC CEMENT & AGGREGATES, INC.

By *R. S. Turvorn*
PRESIDENT

And by *J. M. Whelan*
Secretary

CITY OF SANTA CRUZ, a municipal corporation

Henry R. Stearns
CITY ATTORNEY

By *Charles J. [Signature]*
City Manager

RESOLUTION OF THE COUNCIL OF THE CITY
OF SANTA CRUZ AUTHORIZING THE CITY
MANAGER TO EXECUTE AN AGREEMENT
WITH PACIFIC CEMENT & AGGREGATES,
INC.

BE IT RESOLVED by the City Council of the City of Santa
Cruz as follows:

That the City Manager be, and he is hereby authorized and
directed to execute that certain agreement between the City of Santa
Cruz and Pacific Cement & Aggregates, Inc., pertaining to the pro-
tection of Liddell Spring against damage due to quarrying operations
by Pacific Cement & Aggregates, Inc., upon the terms and conditions
as set forth in said agreement as the same is presented to Council
on this date.

PASSED AND ADOPTED this 17th day of November

1964, by the following vote:

- AYES: Councilmen - Foster, Leask, Fleming, Hackbarth, Walters
- NOES: Councilmen - None
- ABSENT: Councilmen - Mayor Lezin

APPROVED /s/ NORMAN A. WALTERS
Acting Mayor

Attest /s/ A.J. MILLER
City Clerk

THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING IS A
TRUE AND CORRECT COPY OF RESOLUTION NO NS- 7723
PASSED AND ADOPTED BY THE CITY COUNCIL ON
THE 17th DAY OF November, 1964

A.J. Miller
CITY CLERK

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