

Deed Restriction for  
Former Orchid Dry Cleaners site  
1829 North Texas Street, Fairfield, Solano County  
48S0024  
Order No. 94-167

**FTC 701673**

Recorded in Official Records, Solano County

6/13/2003  
8:00 AM  
AR59  
41

Recording Requested By:

**Skip Thomson**  
Assessor/Recorder

The Yarbrough Family Trust, dated July 23, 19 04 Frontier Title Co

**When Recorded, Mail To:**

**Doc#: 200300096221**

**Titles: 1      Pages: 27**

Executive Officer  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612



Fees	85.00
Taxes	0.00
Other	0.00
<b>PAID</b>	<b>\$85.00</b>

**COVENANT AND ENVIRONMENTAL RESTRICTION ON PROPERTY**

Former Orchid Dry Cleaners Site

1829 North Texas Street

Fairfield, California

This Covenant and Environmental Restriction on Property (this "Covenant") is made as of the Day day of MONTH, YEAR by The Yarbrough Family Trust ("Covenanter") who is the Owner of record of that certain property situated at 1829 North Texas Street in the City of Fairfield, County of Solano, State of California, which is more particularly described in Exhibit A attached hereto and incorporated herein by this reference (such portion hereinafter referred to as the "Burdened Property"), for the benefit of the California Regional Water Quality Control Board for the San Francisco Bay Region (the "Board"), with reference to the following facts:

- A. The Burdened Property and groundwater underlying the property contains hazardous materials.
- B. Contamination of the Burdened Property. The Burdened Property was contaminated by a dry cleaning business that operated under the name of Orchid Cleaners from 1964 through April 1992. These operations resulted in contamination of soil and groundwater with organic chemicals including tetrachloroethylene (PCE) and its degradation byproducts including trichlorethene (TCE), trans-1,2-dichloroethene and cis-1,2-dichloroethene, which constitute hazardous materials as that term is defined in Health & Safety Code Section 25260. Remediation of the soil contaminated with dry cleaning chemicals was conducted in 1995 and involved the excavation and on-site treatment of approximately 1,140 cubic yards of soil to a maximum depth of fifteen feet below grade. Residual groundwater impacts have been monitored over a period of more than eight years and have documented the continuing natural decrease of these compounds due to natural reductive conditions.
- C. Exposure Pathways. The contaminants addressed in this Covenant are present in groundwater on the Burdened Property. Without the mitigation measures (soil remediation) which have been performed on the Burdened Property, exposure to these contaminants could take place via in-place contact to



soil and/or wind dispersal resulting in dermal contact, inhalation or ingestion by humans. The risk of public exposure to the contaminants has been substantially lessened by the remediation and controls described herein.

D. Adjacent Land Uses and Population Potentially Affected. The Burdened Property is used for commercial retail business and is adjacent to other commercial properties to the north, east and south with a residential neighborhood bordering the property to the west.

E. Full and voluntary disclosure to the Board of the presence of hazardous materials on the Burdened Property has been made and extensive sampling of the Burdened Property has been conducted.

F. Covenantor desires and intends that in order to benefit the Board, and to protect the present and future public health and safety, the Burdened Property shall be used in such a manner as to avoid potential harm to persons or property that may result from hazardous materials that may have been deposited on portions of the Burdened Property.

## ARTICLE I GENERAL PROVISIONS

1.1 Provisions to Run with the Land. This Covenant sets forth protective provisions, covenants, conditions and restrictions (collectively referred to as "Restrictions") upon and subject to which the Burdened Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. The restrictions set forth in Article III are reasonably necessary to protect present and future human health and safety or the environment as a result of the presence on the land of hazardous materials. Each and all of the Restrictions shall run with the land, and pass with each and every portion of the Burdened Property, and shall apply to, inure to the benefit of, and bind the respective successors in interest thereof, for the benefit of the Board and all Owners and Occupants. Each and all of the Restrictions are imposed upon the entire Burdened Property unless expressly stated as applicable to a specific portion of the Burdened Property. Each and all of the Restrictions run with the land pursuant to section 1471 of the Civil Code. Each and all of the Restrictions are enforceable by the Board.

1.2 Concurrence of Owners and Lessees Presumed. All purchasers, lessees, or possessors of any portion of the Burdened Property shall be deemed by their purchase, leasing, or possession of such Burdened Property, to be in accord with the foregoing and to agree for and among themselves, their heirs, successors, and assignees, and the agents, employees, and lessees of such owners, heirs, successors, and assignees, that the Restrictions as herein established must be adhered to for the benefit of the Board and the Owners and Occupants of the Burdened Property and that the interest of the Owners and Occupants of the Burdened Property shall be subject to the Restrictions contained herein.

1.3 Incorporation into Deeds and Leases. Covenantor desires and covenants that the Restrictions set out herein shall be incorporated in and attached to each and all deeds and leases of any portion of the Burdened Property. Recordation

of this Covenant shall be deemed binding on all successors, assigns, and lessees, regardless of whether a copy of this Covenant and Agreement has been attached to or incorporated into any given deed or lease.

1.4 Purpose. It is the purpose of this instrument to convey to the Board real property rights, which will run with the land, to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

## ARTICLE II DEFINITIONS

2.1 Board. "Board" shall mean the California Regional Water Quality Control Board for the San Francisco Bay Region and shall include its successor agencies, if any.

2.2 Improvements. "Improvements" shall mean all buildings, roads, driveways, regradings, and paved parking areas, constructed or placed upon any portion of the Burdened Property.

2.3 Occupants. "Occupants" shall mean Owners and those persons entitled by ownership, leasehold, or other legal relationship to the exclusive right to use and/or occupy all or any portion of the Burdened Property.

2.4 Owner or Owners. "Owner" or "Owners" shall mean the Covenantor and/or its successors in interest, who hold title to all or any portion of the Burdened Property.

## ARTICLE III DEVELOPMENT, USE AND CONVEYANCE OF THE BURDENED PROPERTY

3.1 Restrictions on Development and Use. Covenantor promises to restrict the use of the Burdened Property as follows:

- a. Development of the Burdened Property shall be restricted such that property use is limited to industrial, commercial or office space;
- b. Building and/or development over the footprint of residual groundwater contamination as identified in Exhibit A shall be prohibited with the exception of use as a surficial parking lot or landscaped area;
- c. No Owners or Occupants of the Property or any portion thereof shall conduct any excavation work on the Property described in Exhibit A below a depth of 12 feet, unless expressly permitted in writing by the Board. Any contaminated soils brought to the surface by grading, excavation, trenching, or backfilling shall be managed by Covenantor or his agent in accordance with all applicable provisions of local, state and federal law;
- d. All uses and development of the Burdened Property shall be consistent with any applicable Board Order or Risk Management Plan (Exhibit B), each of which is hereby incorporated by reference including future amendments



thereto. All uses and development shall preserve the integrity of any cap, any remedial measures taken or remedial equipment installed, and any groundwater monitoring system installed on the Burdened Property pursuant to the requirements of the Board, unless otherwise expressly permitted in writing by the Board;

- e. No Owners or Occupants of the Property or any portion thereof shall drill, bore, otherwise construct, or use a well for the purpose of extracting water for any use, including but not limited to, domestic, potable, or industrial uses, unless expressly permitted in writing by the Board;
- f. The Owner shall notify the Board of each of the following: (1) The type, cause, location and date of any disturbance to any cap, any remedial measures taken or remedial equipment installed, and of the groundwater monitoring system installed on the Burdened Property pursuant to the requirements of the Board, which could affect the ability of such cap or remedial measures, remedial equipment, or monitoring system to perform their respective functions and (2) the type and date of repair of such disturbance. Notification to the Board shall be made by registered mail within ten (10) working days of both the discovery of such disturbance and the completion of repairs;
- g. The Covenantor agrees that the Board, and/or any persons acting pursuant to Board orders, shall have reasonable access to the Burdened Property for the purposes of inspection, surveillance, maintenance, or monitoring, as provided for in Division 7 of the Water Code;
- h. No Owner or Occupant of the Burdened Property shall act in any manner that will aggravate or contribute to the existing environmental conditions of the Burdened Property. All use and development of the Burdened Property shall preserve the integrity of any capped areas.

3.2 Enforcement. Failure of an Owner or Occupant to comply with any of the restrictions, as set forth in paragraph 3.1, shall be grounds for the Board, by reason of this Covenant, to have the authority to require that the Owner modify or remove any Improvements constructed in violation of that paragraph. Violation of the Covenant shall be grounds for the Board to file civil actions against the Owner as provided by law.

3.3 Notice in Agreements. After the date of recordation hereof, all Owners and Occupants shall execute a written instrument, which shall accompany all purchase agreements or leases relating to the property. Any such instrument shall contain the following statement:

The land described herein contains residual dry cleaning chemicals in the groundwater under the property, and is subject to a deed restriction dated as of \_\_\_\_\_, 2003, and recorded on \_\_\_\_\_, 2003, in the Official Records of Suisun County, California, as Document No. \_\_\_\_\_, which Covenant and Restriction imposes certain covenants, conditions, and restrictions on usage of the property described herein. This statement is not a declaration that a hazard exists.

ARTICLE IV  
VARIANCE AND TERMINATION

4.1 Variance. Any Owner or, with the Owner's consent, any Occupant of the Burdened Property or any portion thereof may apply to the Board for a written variance from the provisions of this Covenant.

4.2 Termination. Any Owner or, with the Owners consent, any Occupant of the Burdened Property or a portion thereof may apply to the Board for a termination of the Restrictions as they apply to all or any portion of the Burdened Property.

4.3 Term. Unless terminated in accordance with paragraph 4.2 above, by law or otherwise, this Covenant shall continue in effect in perpetuity.

ARTICLE V  
MISCELLANEOUS

5.1 No Dedication Intended. Nothing set forth herein shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Burdened Property or any portion thereof to the general public.

5.2 Notices. Whenever any person gives or serves any notice, demand, or other communication with respect to this Covenant, each such notice, demand, or other communication shall be in writing and shall be deemed effective (1) when delivered, if personally delivered to the person being served or official of a government agency being served, or (2) three (3) business days after deposit in the mail if mailed by United States mail, postage paid certified, return receipt requested:

*If To: "Covenantor"*

The Yarbrough Family Trust  
97 Dobbins Street  
Vacaville, California 95688

*If To: "Board"*

Regional Water Quality Control Board  
San Francisco Bay Region  
Attention: Executive Officer  
1515 Clay Street, Suite 1400  
Oakland, California 94612

5.3 Partial Invalidity. If any portion of the Restrictions or terms set forth herein is determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such portion had not been included herein.

5.4 Article Headings. Headings at the beginning of each numbered article of this Covenant are solely for the convenience of the parties and are not a part of the Covenant.



5.5 Recordation. This instrument shall be executed by the Covenantor and by the Executive Officer of the Board. This instrument shall be recorded by the Covenantor in the County of Solano within ten (10) days of the date of execution.

5.6 References. All references to Code sections include successor provisions.

5.7 Construction. Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Covenant to effect the purpose of this instrument and the policy and purpose of the Water Code. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

IN WITNESS WHEREOF, the parties execute this Covenant as of the date set forth above.

Covenantor: The Yarbrough Family Trust

By: *Doreen Yarbrough*  
Title: Co-Trustee /  
Date: 5-2-03

Agency: State of California  
Regional Water Quality Board,  
San Francisco Bay Region

By: *Scott K. Baranec*  
Title: Executive Officer  
Date: 5-6-03 /

STATE OF CALIFORNIA )

)

COUNTY OF SOLANO )

On \_\_\_\_\_, 2003 before me, the undersigned a Notary Public in and for said state, personally appeared The Yarbrough Family Trust, personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument.

WITNESS my hand and official seal.

\_\_\_\_\_

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California }  
 County of Solano } ss.

On May 5, 2003, before me, Marie K. Leach, Notary Public,  
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")  
 personally appeared Billy Yarbrough,  
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies) and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



Place Notary Seal Above

WITNESS my hand and official seal.

Marie K. Leach  
Signature of Notary Public

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**

Title or Type of Document: Covenant and Environmental Restriction on Property  
Former Orchid Dry Cleaners Site

Document Date: May 2, 2003 Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer**

- Signer's Name: Billy Yarbrough
- Individual
  - Corporate Officer — Title(s): \_\_\_\_\_
  - Partner —  Limited  General
  - Attorney in Fact
  - Trustee
  - Guardian or Conservator
  - Other: \_\_\_\_\_

Signer Is Representing: The Yarbrough Family Trust

**RIGHT THUMBPRINT OF SIGNER**

Top of thumb here



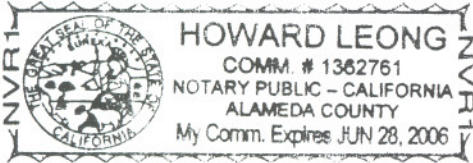
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California  
 County of Alameda } ss.

On 6/6/2003, before me, Howard Leong, Notary Public  
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")  
 personally appeared LORETTA K BARSAMIAN  
Name(s) of Signer(s)

- personally known to me
- proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

*Howard Leong*  
 Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**

Title or Type of Document: COVENANT

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer**

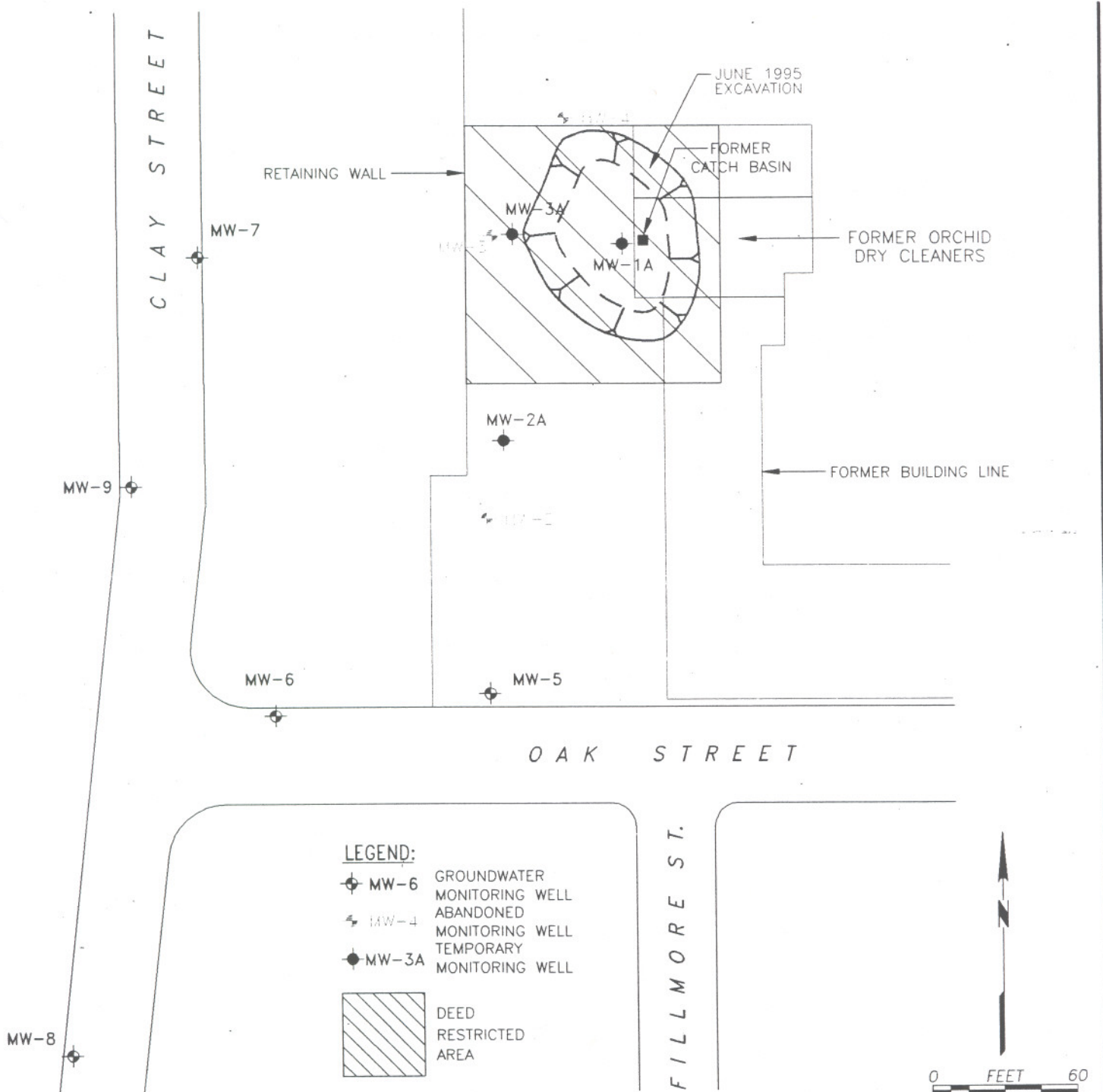
- Signer's Name: \_\_\_\_\_
- Individual
  - Corporate Officer — Title(s): \_\_\_\_\_
  - Partner —  Limited  General
  - Attorney in Fact
  - Trustee
  - Guardian or Conservator
  - Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_



EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY



LEGEND:

- ◆ MW-6 GROUNDWATER MONITORING WELL
- ⚡ MW-4 ABANDONED MONITORING WELL
- MW-3A TEMPORARY MONITORING WELL

 DEED RESTRICTED AREA

TITLE:

**MAP OF DEED RESTRICTED AREA**

LOCATION:

FORMER ORCHID DRY CLEANERS  
1829 NORTH TEXAS STREET  
FAIRFIELD, CALIFORNIA

DATE:

8/29/02

FIGURE:

1



**The Source Group, Inc.**

3451-C VINCENT ROAD  
PLEASANT HILL, CA 94523

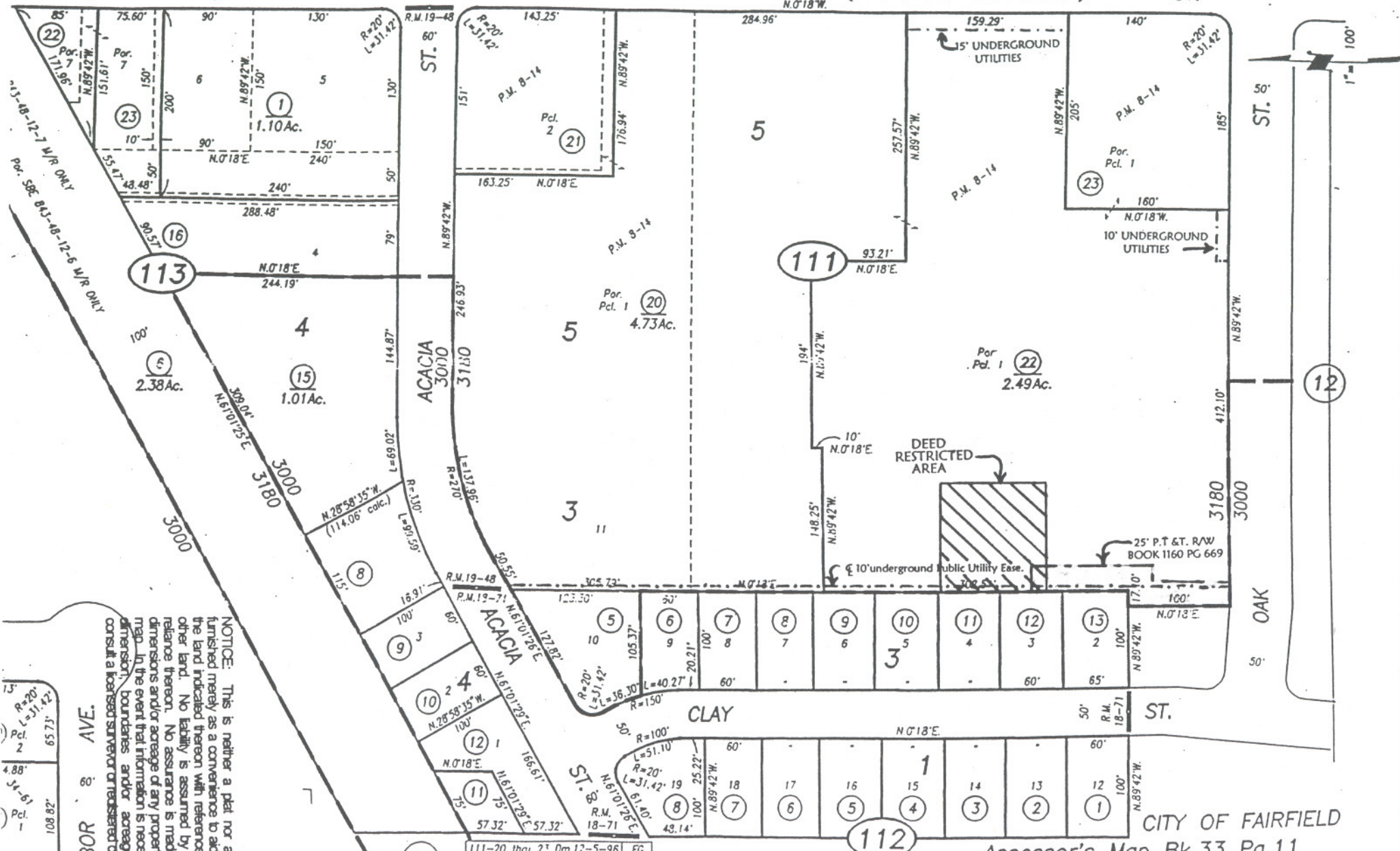


**EXHIBIT "A"**  
**LEGAL DESCRIPTION**

The land referred to is situated in the State of California, County of Solano, City of Fairfield, and is described as follows:

BEGINNING at the Southeasterly corner of Parcel One, (7.53 acres), with said Southeasterly corner being on the Westerly right of way line of North Texas Street, as shown on that certain Map entitled: "PARCEL MAP BEING A RE-SUBDIVISION OF PARCELS A AND B, AS SHOWN ON PARCEL MAP RECORDED IN BOOK 7 PARCEL MAPS, PAGE 69", as filed in Book 8 of Parcel Maps at Page 14, Solano County Records; thence along said Westerly right of way line of North Texas Street South 00° 18' 00" West, 7.00 feet; thence leaving said Westerly right of way line North 89° 42' 00" West 205.00 feet; thence South 00° 18' 00" West 160.00 feet to the Northerly right of way line of Oak Street, as shown on said "PARCEL MAP"; thence along said Northerly right of way line North 89° 42' 00" West, 412.10 feet; thence leaving said Northerly right of way line North 00° 18' 00" East 100.00 feet; thence South 89° 42' 00" East 17.10 feet; thence North 00° 18' 00" East, 302.51 feet; thence South 89° 42' 00" East 149.58 feet; thence North 00° 18' 00" East, 10.33 feet; thence South 89° 42' 00" East 192.67 feet; thence South 00° 18' 00" West 93.74 feet; thence South 89° 42' 00" East 257.75 feet to said Westerly right of way line of North Texas Street; thence along said Westerly right of way line South 00° 18' 00" West, 152.09 feet to the POINT OF BEGINNING.

APN: 33-111-220



NOTICE: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated thereon with reference to streets and other land. No liability is assumed by reason of an reliance thereon. No assurance is made regarding the dimensions and/or acreage of any property shown on the map. In the event that information is necessary regarding dimensions, boundaries and/or acreage, you should consult a licensed surveyor or real estate broker.

13' R=20° L=31.42' Pcl. 2 65.73' 4.88' J=51' Pcl. 1 108.82' 4.71' 10'45'E

TABOR AVE. 60'

111-20 thru 23	Om 12-5-96	FG
SBE 96-008	1-29-96	PJ
113-22 & 23	7-24-92	SS
113-20 & 21	8-25-89	SS
SBE-PU	6-27-86	DJ
113-07 to subd	11-12-83	PN

19 Pg. 48  
 '8 Pg. 71

NOTE: Assessor's Block Numbers Shown in Ellipses  
 Assessor's Parcel Numbers Shown in Circles



EXHIBIT B  
RISK MANAGEMENT PLAN

**RISK MANAGEMENT PLAN**

**Former Orchid Dry Cleaners Facility  
1829 North Texas Street  
Fairfield, California  
CA Regional Water Quality Control Board  
File #94-167, SCDEM File #30585**

01-YAR-003

Prepared For:

Mr. Billy Yarbrough  
97 Dobbins Street  
Vacaville, California 95688

Prepared By:



**The Source Group, Inc.**

3451-C Vincent Road  
Pleasant Hill, California 94523

February 28, 2003



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Figure 1      Map of Deed Restricted Area Subject to Risk Management Plan

## 1.0 INTRODUCTION

This Risk Management Plan (RMP) has been prepared as an attachment to the Covenant and Environmental Restriction on Property at the Former Orchid Dry Cleaners Facility, located at 1829 North Texas Street, Fairfield, California. This RMP applies to the specific area described in Figure 1.

The RMP has been prepared to address the known environmental conditions and to provide a decision framework to manage residual chemicals in groundwater at the Site in a manner that is: (1) satisfactory to the RWQCB and other regulatory agencies, (2) protective of human health and the environment, and (3) consistent with future planned land uses.

### 1.1 Site Setting

The Site lies at an elevation of approximately 40 to 45 feet above mean sea level (msl) and is topographically flat with a gentle slope toward the west-southwest. The site is bound on its western edge by a 6-foot concrete retaining wall (Figure 1). During original site development, the western part of the property was leveled through the placement of fill and the retaining wall. The topography in the immediate area slopes to the west-southwest toward Union Avenue Creek located approximately 500 feet to the west.

### 1.2 Previous Site Investigations

Several groundwater and soil investigations have been conducted at the Site. The site investigation activities and results are detailed in the following reports, which are referenced in Section 5.0:

- Soil and Groundwater Investigation (BCA, 1992)
- Report of Subsurface Investigations (SECOR, 1994b)
- Revised Phase I Environmental Site Assessment (SECOR, 1994a)
- Report of Additional Subsurface Investigations and Recommended Remedial Action Plan (SECOR, 1994c)
- Report of Additional Subsurface Investigation and Remedial Action Implementation (SECOR, 1995a), which included a screening level human health risk assessment (SLRA)
- Second Quarter 1999 Activities Report (The Source Group, 1999).
- August 2001 Activities Report (The Source Group, 2001a)
- November 2001 Activities Report (The Source Group, 2001b)



- Supplemental No Further Action Assessment Report (The Source Group, 2002a)
- Final Remedial Action Plan (The Source Group, 2002b).

## 2.0 CURRENT SUBSURFACE CONDITIONS

### 2.1 Soil

The major source for impacting groundwater was removed in June 1995, when SECOR excavated 1,140 cubic yards (to a depth of 14 feet below grade) of contaminated soil around the former sump. The soil was treated onsite and used to backfill the excavation. SECOR estimated that approximately 50 pounds of VOCs were removed by excavation and less than 2.5 pounds of residual VOCs were present in Site soil.

Data reviewed indicate that soil remedial actions conducted at this Site have met the developed remedial objectives. Soil vapor sampling and human health risk assessments indicate that there is no significant health risk associated with use of the Site for residential purposes.

### 2.2 Groundwater

Compounds detected in the groundwater at the Site during the July 2002 sampling event include PCE, TCE, trans-1,2-DCE, cis-1,2-DCE, vinyl chloride (VC), and chloroform. The highest concentrations of t-1,2-DCE, c-1,2-DCE and VC were found in temporary monitoring well MW-1A at 300 micrograms per liter ( $\mu\text{g/L}$ ), 1,400  $\mu\text{g/L}$  and 180  $\mu\text{g/L}$ , respectively. The highest concentrations of PCE, TCE and chloroform were found in temporary monitoring well MW-3A at 750  $\mu\text{g/L}$ , 340  $\mu\text{g/L}$  and 2.1  $\mu\text{g/L}$ , respectively. All tested constituents were below detection limits in monitoring wells MW-5, MW-8, and MW-10; and in temporary monitoring well MW-2A. Recent groundwater data indicates the mass of VOCs present in groundwater is approximately 1.0 pound.

The total length of the plume is approximately 350 feet. The maximum width of the plume is approximately 200 feet. Since cis-1,2-DCE is a daughter product of TCE, this chemical is primarily present along the leading edge of the plume. Parent product chemicals PCE and TCE are also present, to a lesser degree, along the leading edge of the plume.

### 3.0 RISK EVALUATION

Exposure is a key element in determining risk associated with environmental chemicals of concern (COCs) in the environment. Unless an exposure pathway exists such as accessibility, and via an exposure route such as by inhalation, there is no exposure and therefore no human health risk. The assessment of exposure is made separately from the assessment of individual compound toxicity. The extent of exposure is a key component in setting acceptable levels of environmental COCs.

#### 3.1 Characterization of the Exposure Setting

The entire site is covered by concrete or asphalt or landscaping. Affected media consist of ground water beneath the site at depths from approximately 5 to 13 feet bgs. Ground water impacts are limited to aquifers that are not used for potable or non-potable purposes. The Deed Restriction will specify that the area described on Figure 1 will be limited in development and use to surficial parking and/or unused landscaped area. Because of these limitations, there are no current exposure pathways. Future exposures may include dermal contact, inhalation, and ingestion during periods of ground disturbance from construction activities.

#### 3.2 Conceptual Site Model

The conceptual site model (SECOR, 1995a) summarizes the overall rationale and approach to evaluating human exposure to site contaminants. The following are the key elements necessary for a complete exposure pathway:

- A chemical source,
- A mechanism of chemical release to the environment,
- An environmental transport medium (e.g., groundwater) for the released chemical,
- A point of contact between the contaminated medium and the receptor (i.e., the exposure point), and
- An exposure route (e.g., dermal contact with contaminated groundwater) at the point of exposure.

All elements must be present for an exposure pathway to be complete. The primary source of COCs is the groundwater underlying the Site. Analytical results indicate that groundwater has been impacted by VOCs. The release and transport mechanism for affected media is VOC emissions from groundwater.



Potential human receptors include construction and maintenance workers. The potential exists for ingestion, inhalation, or dermal exposure to contaminated groundwater during future construction on Site.

### **3.3 Exposure Scenario**

Human exposures are evaluated assuming that the most likely receptors at the site are construction workers (occupational). The current exposure scenario route includes inhalation of vapors, ingestion, and dermal contact since groundwater containing VOCs underlying the site may be accessible during construction and/or excavation.

The exposure parameters (e.g., exposure duration, exposure frequency, etc.) used in the evaluation are default exposure parameters for inhalation consistent with USEPA Region 9.

## 4.0 RISK MANAGEMENT

Risk management addresses precautions that will be taken to mitigate risks to human health and the environment from identified chemicals during earthwork and construction at the Site. These precautions will include the following:

- Establishment of health and safety training and worker protection objectives for workers who may directly contact groundwater containing chemicals of concern, and
- Implementation of construction impact mitigation measures, including limited direct contact with groundwater, VOC emission controls, and prevention of groundwater entering storm water system.

### 4.1 Site-Specific Health and Safety Plans

A hazardous operations Site-specific health and safety plan will be required if construction activities may involve direct contact with groundwater containing COCs. The plan will be consistent with State and Federal Occupational Safety and Health Administration ("OSHA") standards for hazardous waste operations (CCR, Title 8, Section 5192 and 29 Code of Federal Regulations 1910.120, respectively). Among other things, the health and safety plan will include a description of health and safety training requirements for onsite construction workers, a description of the level of personal protective equipment to be used, if any, air quality monitoring plans, and any other applicable precautions to be undertaken to minimize direct contact with groundwater containing COCs.

### 4.2 Construction Impact Mitigation Measures

This section outlines measures that should be implemented to mitigate potential impacts to human health and the environment during construction at the Site. Measures will be implemented to mitigate the following impacts:

- Construction worker contact with groundwater,
- VOC emissions from exposed groundwater, and
- Groundwater entering storm water system.

The mitigation measures for these potential impacts may include but are not limited to the following:

- Utilize construction methods that do not expose groundwater,
- Implementing VOC emissions controls, and

- Implementing storm water pollution control measures.

These mitigation measures are discussed in more detail below.

#### **4.2.1 Construction Methods to Minimize Potential for Creating Exposed Groundwater**

As discussed in Section 1.2, residual concentrations of VOCs exist in shallow ground water. The top of the shallow ground water zone is encountered at depths ranging from approximately 5 to 13 ft-bgs. Competent bedrock occurs at approximately 10 to 20 ft-bgs beneath the Site

Wherever possible, Site improvements should avoid penetrating soil such that the shallow ground water zone is exposed. Minimizing soil disturbance reduces the possibility that preferential pathways will be created that expose humans to VOC contaminated groundwater. If planned improvements necessitate that excavations or subsurface structures penetrate soil into the shallow ground water zone, then construction methods should be used that minimize the potential for human contact with the groundwater.

Should groundwater be exposed at the Site, efforts shall be made to minimize direct human contact. This includes, but is not limited to:

- Sampling and analyses of groundwater,
- Donning personal protective equipment,
- Containing groundwater in approved hazardous waste containers; and
- Ensuring proper disposal of any extracted groundwater.

#### **4.2.2 VOC Emissions Controls**

In the event that groundwater is exposed during excavation or construction activities, groundwater shall be sampled and analyzed to determine if VOC concentrations are high enough to impact human health or the environment. During construction activities, air monitoring shall be performed. If laboratory results indicate that groundwater VOC concentrations are significant, and nuisance VOC emissions are a possible problem, appropriate engineering controls shall be employed.

#### **4.2.3 Storm Water Pollution Controls**

If dewatering is to be performed as part of construction activities, groundwater shall be sampled and analyzed to determine if extracted water contains chemicals of concern. It is the responsibility of the contractor or developer to ensure that dewatering activities are performed in accordance with the



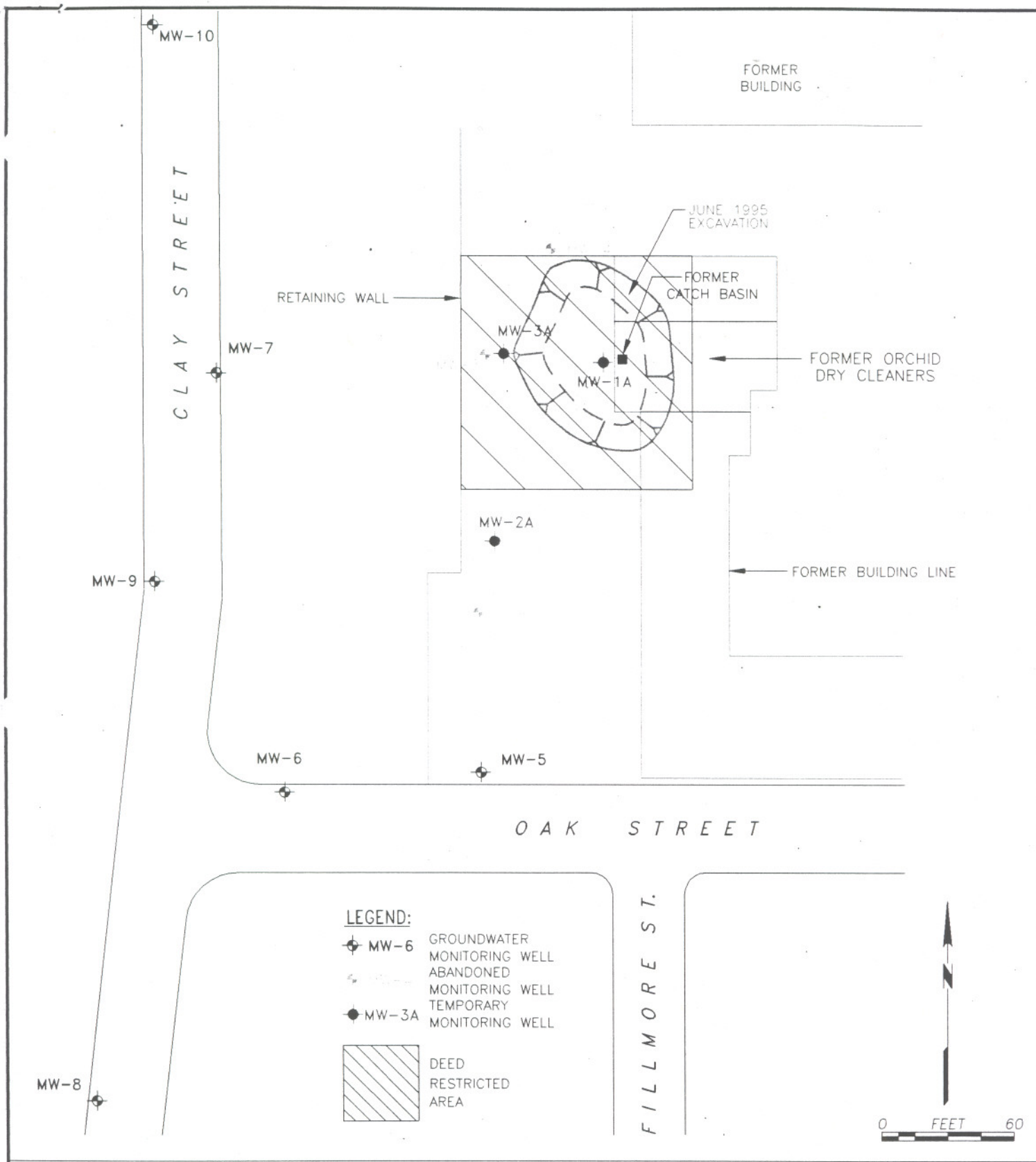
provisions of the General Permit and that any other non-storm water discharges (e.g., wash water resulting from equipment cleaning) are managed in accordance with the provisions of the General Permit and with all other applicable laws and regulations.

## 5.0 REFERENCES

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- Weidemeier, 1998. Weidemeier, T.H., et al., Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water. EPA/600/R-98/128.

**FIGURES**





TITLE: **MAP OF DEED RESTRICTED AREA**

LOCATION: **FORMER ORCHID DRY CLEANERS  
 1829 NORTH TEXAS STREET  
 FAIRFIELD, CALIFORNIA**

DATE: **8/29/02**

FIGURE: **1**

 **The Source Group, Inc.**  
 3451-C VINCENT ROAD  
 PLEASANT HILL, CA 94523

Government Code 27361.7

I certify under penalty of perjury that the notary seal on the document to which this statement is attached reads as follows:

Name of Notary Marie K. Leach

Commission Number 1357730

Place of Execution Colono County

Date Commission Expires 6.19.06

Date: 6/13/03

[Handwritten Signature]

Signature

Frontier Title Co.

Firm Name (if any)

