State of California Department of Consumer Affairs

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November 16, 2001

Sent via facsimile and first class mail
Craig M. Wilson, Esq.
Chief Counsel
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Re: Response to request for legal opinion concerning practice of land surveying and Emergency Regulations adopted by the State Water Resources Control Board (Tit. 23, California Code of Regs. §§ 2729-2729.1.)

Dear Mr. Wilson:

This is in response to your request to the Board for Professional Engineers and Land Surveyors (Board) for a legal opinion regarding the applicability of Business and Professions Code section 8726 to emergency regulations recently adopted by the State Water Resources Control Board (SWRCB). Cindi Christenson, the Board's executive officer, requested me to respond to your inquiry. Specifically, your question is as follows:

Question

Does the collection of information required by emergency regulations adopted by SWRCB (California Code of Regs. §§ 2729-2729.1) constitute "land surveying," as the term is defined in section 8726 of the Business and Profession Code, and therefore require a license issued by the Board?

Conclusion

The collection of information related to the exact location of groundwater monitoring wells, required by Title 12,California Code of Regs. §§ 2729-2729.1, constitutes "land surveying," as the term is defined in section 8726 of the Business and Profession Code and requires a license issued by the Board unless an exemption from licensure applies. Among the statutory exemptions are the following:

- Civil engineers registered prior to January 1, 1982. (Bus. & Prof. Code § 8731.)
- To the extent that a survey can be characterized as being made "exclusively for geological" purposes and do not involve the determination of any property lines, such surveying does not fall within the meaning of the Professional Land Surveyors' Act and may be performed by registered geologists or others persons authorized to practice geology, such as civil engineers. (Bus. & Prof. Code §§ 8727 and 7838.)

- Certain federal officials and subordinates to appropriately licensed professionals may engage in land surveying activities without being licensed. (Bus. & Prof. 7836, 7837, 7838, 6739, 6740 and 8730.)

In summary, the collection of information required by SWRCB regulations requires the person to be licensed as a professional land surveyor unless such person is specifically exempt from licensure.

Analysis

Pursuant to a mandate by the Legislature (AB 592, Stats.1997, ch. 814; SB 1189, Stats. 1997, ch. 815), the SWRCB was required to develop an information system to identify the location of each underground storage tank (UST) in the state and describe whether a release had occurred in order to better protect drinking water sources from the threat of MTBE contamination. Consequently, the Geographic Environmental Information Management System (GEIMS) was developed to investigate the feasibility of establishing a statewide geographic information system (GIS) for leaking underground fuel tank (LUFT) sites. More recently, the legislature enacted Assembly Bill 2886 (Stats.2000, ch.727, Water Code §§13195-13198) that requires responsible parties to electronically submit compliance data, such as soil or water chemistry analysis, location, and elevation data to the SWRCB. This data is currently reported in paper format in site investigations and quarterly monitoring reports. As of September 1, 2001 the laboratory analytical data from all LUFT sites are required to be electronically reported to SWRCB. In addition, the legislation also required SWRCB to adopt regulations concerning electronic submission of reports.

Pursuant to AB 2886, SWRCB issued emergency regulations, operative September 1, 2001, that require underground storage tank reports containing laboratory data reporting soil or water chemistry to be submitted electronically in the Electronic Deliverable Format (EDF) to SWRCB's GEIMS data base.[1] (Title 23, California Code Regs. §§ 2729-2729.1.) Among the information essential to the integrity of the laboratory data, is the location and elevation data specifying where the analyzed samples were collected. Specifically, the regulation requires that beginning January 1, 2002, any person submitting data in electronic format through the GeoTracker interface must (1) provide the latitude and longitude of groundwater monitoring wells accurate to within one meter, and (2) provide the surveyed elevation relative to mean sea level of any groundwater monitoring well sampled. (*Id.*, § 2791.1, subd.(b).)

In addition to adopting the emergency regulations, SWRCB has also published "GeoTracker Survey_XYZ Guidelines & Restrictions," a document that "presents the structure and guidelines and restrictions for creating a GeoTracker Survey_XYZ electronic data deliverable." This document essentially defines the file format and data elements (data fields) used by GeoTracker that solicit field location measurement data for import into GEIMS. In addition to identifying the survey method employed, the GeoTracker interface requires the input of exact location positions of the monitoring wells. More specifically, GeoTracker requires the following information:

- Latitude (decimal degrees)

[1] GeoTracker is a geographic information system (GIS) that provides online access to environmental data. GeoTracker is the ***interface*** to the Geographic Environmental Information Management System (GEIMS), a data warehouse which tracks regulatory data about underground fuel tanks, fuel pipelines, and public drinking water supplies.

- Longitude (decimal degrees)
- Datum (NAD 83)
- Survey Method (list…)
- Survey date
- Data Source (organization reporting data)
- Optional description

It is our understanding that the information collected for purposes of complying with Title 12,California Code of Regulations sections 2729-2729.1 is not used for the determination of any property lines.

According to the November 1, 2001, revised guidelines document (see http://geotracker.swrcb.ca.gov), the system provides six different data fields that describe acceptable survey methods for entry into GeoTracker. (See attached.) Two of the data fields (MAPP and MAPNP, attached) describe survey methods that are not compliant with AB2886 requirements insofar as the methodology employed is not within sub-meter accuracy. (These data fields may have been included for historical purposes for data collected prior to January 1, 2002.) Two other data fields describe classical land surveying methods often used by professional land surveyors (CONV and CGPS, attached). The remaining two data fields (RTK and STAT, attached) describe surveying methods that exclusively employ Global Positioning Satellite (GPS) technology.

Business and Professions Code section 8725 restricts the practice of land surveying to persons licensed as land surveyors unless specifically exempted from licensing under the Professional Land Surveyors' act.[2] The statutory definition of "land surveying" is both broad defined and very detailed as to the particular activities that involve land surveying. In relevant part, Section 8726 provides:

> "A person, including any person employed by the state or by a city, county, or city and county within the state, practices land surveying within the meaning of this chapter who, either in a public or private capacity, does or offers to do any one or more of the following:
> (a) Locates, relocates, establishes, reestablishes, or retraces the alignment or elevation for any of the fixed works embraced within the practice of civil engineering, as described in Section 6731.
> (b) Determines the configuration or contour of the earth's surface, or the position of fixed objects thereon or related thereto, by means of measuring lines and angles, and applying the principles of mathematics or photogrammetry.
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> (f) Geodetic or cadastral surveying. As used in this chapter, geodetic surveying means performing surveys, in which account is taken of the figure and size of the earth to determine or predetermine the horizontal or vertical positions of points, monuments, or stations for use in the practice of land surveying or for stating the position of geodetic control points, monuments, or stations by California Coordinate System coordinates.
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> *** * ***

[2] Unless stated otherwise, all statutory references are to the Business and Professions Code.

> (k) Coordinates the work of professional, technical, or special consultants in connection with the activities authorized by this chapter.
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> (m) Creates, prepares, or modifies electronic or computerized data in the performance of the activities described in subdivisions (a), (b), (c), (d), (e), (f), (k), and (l).
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> * * *

Each of the above quoted subdivisions can apply to the collection of survey data for entry into the GeoTracker system. The identification of the location of monitoring wells by exactly specifying the location, survey method, and preparation of computerized (survey) data encompass each of the activities specified in subdivisions (a),(b) and (m) of Section 8726. Use of geodetic surveying methods (using GPS) that tie into the California Coordinate System is defined as land surveying pursuant to subdivision (f) of Section 8726. Coordinating the work of other professional, technical, or special consultants (including subordinates) in connection with land surveying activities is also included within the definition of land surveying practice pursuant to subdivision (k) of Section 8726. Both the emergency regulations adopted by SWRCB and the GeoTracker guidelines published by SWRCB essentially establish a performance standard for submission of data into GeoTracker. Location information must be within sub-meter accuracy beginning in January 1, 2002. This may be accomplished by using conventional land surveying methods and by using new methods involving geodetic surveying. As a matter of history and policy, professional land surveyors may be in the best position to perform this work since the scope of practice of land surveying fundamentally relates to determining the location and elevation of fixed works. Although the collection of location, elevation and survey method data required by GeoTracker involves the practice of land surveying, other provisions of the Professional Land Surveyors' Act exempt certain persons and surveys from the practice restriction of Section 8725. For example, civil engineers registered prior to January 1, 1982, are completely exempt from land surveyor registration requirements and may practice land surveying as defined in Business and Professions.

Section 8727 provides that surveys made "exclusively for geological purposes" that do not involve the determination property lines do not constitute surveying with the meaning of the Professional Land Surveyors Act. Consequently, to the extent that a survey conducted for GeoTracker purposes can be characterized as being made "exclusively for geological" purposes and does not involve the determination of any property lines, such surveying does not constitute surveying within the meaning of the Professional Land Surveyors' Act. As such, the collection of the survey data required by GeoTracker is not solely restricted to licensed land surveyors. Surveys made exclusively for geological purposes may be performed by registered geologists since such activity falls within the scope of practice of geology. Because licensed civil engineers and petroleum engineers are exempt from the Geologist and Geophysicist Act (§ 7838), such persons may practice geology including conducting surveys for geological purposes. Consequently, all civil engineers and petroleum engineers may perform surveys for geological purposes. However, licensed civil and petroleum engineers may only conduct such surveying work to the extent they are by education and/or experience fully competent and proficient. (Title 16, California Code of Regs. § 415) Also, to the extent that a survey is conducted by persons specifically exempt (ie., federal employees conducting surveys for geological purposes, and subordinates to licensees in responsible charge) from the

applicable licensing acts, such persons are also exempt from licensure requirements provided they fall within the express confines of the exemption. (See §§ 7836, 7837, 7838, 6739, 6740 and 8730.)

We are not aware of any restriction on use of the "tools" typically used by land surveyors. For instance, the simple use of new GPS technology is not restricted to any one licensed occupation, however, the use of such equipment for the collection of data for input into GeoTracker does necessitate the responsible charge of a licensed land surveyor, a licensed civil engineer or petroleum engineer, or a licensed geologist. Consequently, the simple use of surveying tools does not require licensure but using the data derived from such tools may require professional judgment (and licensure) depending upon its intended use.

Please feel free to call me at (916) 445-4216 if you have any questions.

Sincerely,

DOREATHEA JOHNSON
Deputy Director, Legal Affairs

By: Gary W. Duke
Staff Counsel

cc: Cindi Christenson, Executive Officer, BPELS
David Boyers, State Water Resources Control Board, Office of Chief Counsel
Michael W. Gjerde, State Water Resources Control Board