

**Court of Appeal No. G044138**  
(Orange County Superior Court Case No. 30-2009-00121878-CU-WM-CJC)

**Court of Appeal of the State of California  
Fourth Appellate District, Division Three**

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**SIERRA CLUB,**  
Petitioner

vs.

**SUPERIOR COURT OF THE STATE OF CALIFORNIA,  
COUNTY OF ORANGE,**  
Respondent.

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**COUNTY OF ORANGE,**  
Real Party in Interest.

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COURT OF APPEAL-4TH DIST DIV 3  
**FILED**

**JAN 12 2011**

**FROM THE SUPERIOR COURT FOR ORANGE COUNTY,**  
The Honorable James J. Di Cesare, Judge  
Department C-18 – (657) 622-5218

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Deputy Clerk \_\_\_\_\_

**APPLICATION FOR PERMISSION TO FILE BRIEF  
AND BRIEF OF GIS COMMUNITY AMICI CURIAE  
IN SUPPORT OF THE SIERRA CLUB'S  
PETITION FOR EXTRAORDINARY WRIT**

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## **Interest of the Amici and Application for Permission to File**

Amici Curiae are members of the Geographic Information Systems (GIS) Community. GIS is “a computer application used to store, view and analyze geographical information, especially maps.” (American Heritage Dict. (4th ed. 2006) p. 735.) Amici are organizations and professionals who regularly use GIS applications to visualize, manipulate and analyze computer data pertaining to particular locations on the surface of the earth.

Amici have a strong interest in the outcome of this case. Much of the GIS data used by amici comes from government agencies. (*See, e.g.* University of Oregon Libraries, Map and GIS Resources: United States, by State (2010), available at [http://libweb.uoregon.edu/map/map\\_section/map\\_Statedatasets.htm](http://libweb.uoregon.edu/map/map_section/map_Statedatasets.htm) > (as of Dec. 21, 2010).) Many state and local agencies in California make their GIS data available to the public on their Web sites, at no charge. (*Ibid.*)

The California Public Records Act (PRA) provides amici, and their clients, with an important tool to obtain GIS data maintained by public agencies in California. If this Court rules that GIS data is “computer software,” as that term is used in Government Code section 6254.9, then GIS data is no longer a public record and is not subject to disclosure under the PRA. This would be disastrous for amici, and to the general public, because it would discourage state and local agencies from providing their GIS data free of charge to members of the public.

Allowing agencies to withhold GIS data would encourage their natural bureaucratic resistance to public transparency. It would encourage them to try to recoup costs by selling the data, as Orange County has done in this case. They could also restrict its distribution with licensing agreements as Orange County has done with the data at issue in this case. The result would be a patchwork of different fees and different distribution policies for state and local agency GIS data, and would make it particularly difficult for government agencies and private companies who consolidate public-record data into uniform databases covering multiple jurisdictions.

For example, a uniform data set containing land parcel mapping data for the state of California would be of great value to amici. It is not available now at a reasonable cost because of the restrictive data-distribution policies of Orange and a handful of other California counties.

Amici have a strong interest in the outcome of this case because their work depends vitally on their continued access to public-agency GIS data.

This brief is submitted on behalf of the following amici curiae:

- **Advocates for the Environment, Inc.**, a California non-profit corporation dedicated to environmental and legal advocacy and education. It uses GIS technology in its advocacy work.
- **Ed Arabas**, GISP, a GIS practitioner with over 15 years of policy and technical GIS experience, currently working for a state government
- **Data Trace Information Services LLC**, which has a standardized title and tax databases that spans the nation and

empowers title insurance companies to streamline order processing, title production and conducting title examinations. Data Trace also manages the largest network of title plants in the country.

- **Davis Demographics**, a premier provider of K-12 demographic master planning, maker of nation's #1 GIS school planning software, SchoolSite™, and demographic reporting, mapping, student projections, redistricting, growth/decline issues
- **Educate Advocate**, which educates parents to advocate for our children; from time to time its mission involves getting public records that administrators want to conceal to the public's injury
- **Shoreh Elhami**, GISP. A GISP is a GIS professional who has been certified by the GIS Certification Institute (see [www.gisci.org](http://www.gisci.org)).
- **Ann Giovacchini**, a 10-year GIS professional currently working for state government
- **GIS Technical Services**, a provider of GIS services in California for over 20 years
- **GreenInfo Network**, a non-profit, tax-exempt organization that assists others in the use of Geographic Information Systems (GIS) and related information technologies; created in 1996, GreenInfo works for 80-100 public-interest clients annually, in California and the United States generally.
- **Francis Harvey**, an Associate Professor of Geography at the University of Minnesota. Along with GIS teaching, he conducts research on a range of information society topics including issues



in sharing and coordinating geographic information among government entities in the United States and other countries.

- **The Humboldt State University Institute for Spatial Analysis**, dedicated to the expansion of spatial analysis methodologies across disciplines and the full spectrum of real world issues, working closely with governmental, public and private sector entities.
- **Bruce Joffe**, founder of GIS Consultants, who has been assisting city, county, state governments and public agencies with GIS implementation and management for over 30 years
- **Lance McKee**, who works for the OGC, an international consortium of more than 405 companies, government agencies, research organizations, and universities participating in a consensus process to develop publicly available geospatial standards. His signing of this amicus brief does not constitute an official position of the OGC on the Sierra Club's suit against Orange County.
- **Pacific Institute**, a non-profit, nonpartisan research institute in Oakland, California that works to advance environmental protection, economic development, and social equity.
- **Redefined Horizons**, a geospatial programming and media company, with a focus on helping civil engineers and land surveyors find new and more efficient ways to work with geospatial data.
- **Peter Roffers**, Engineering Geologist and GIS Analyst with state government, M.S.- GIS and Remote Sensing, with 18 years of technical GIS experience

- **Sage Information Services** gathers data from upwards of 1,500 real property assessment jurisdictions around the country for use in a variety of land use planning and disaster response applications
- **Urban Strategies Council**, a California non-profit corporation dedicated to eliminating persistent urban poverty. It uses GIS technology for social research, planning and community development. Ed Wells
- **Bruce Westcott**, Spatial Information Consultant
- **Chris Zontine**, a graduate student at San Jose State University majoring in geography

Amici believe that their brief will assist this Court's decision in this case in several ways. First, amici are specially qualified to assist the Court in understanding the technical aspects of the case. Second, the amici are aware of important public-policy concerns that will be strongly affected by the Court's decision in this case. Finally, this brief treats the central issue of the statutory interpretation of Gov. Code section 6254.9 somewhat differently from the parties.

Accordingly, amici respectfully ask this Court to grant their application for permission to file this brief.

# Argument

## I. Introduction

Petitioner the Sierra Club requested a copy of the OC Landbase from Real Party Orange County under the California Public Records Act (Government Code sections 6250-6276.48,<sup>1</sup> (PRA).) The OC Landbase is geographic information systems (GIS) data describing attributes and geographic layout of each legal parcel of land in Orange County. Orange County denied the request, and the Sierra Club petitioned the trial court for a writ of mandate under Code of Civil Procedure section 1085 ordering Orange County to provide the Sierra Club with an electronic copy of the OC Landbase for the direct cost of making the copy, as required by the PRA.

The trial court denied the petition based on the computer-software exception contained in section 6254.9. The denial in the trial court's final minute order (5 PA Tab 21 at 1318-21) was based on an erroneous statutory construction of the definition of computer software contained in section 6254.9(b). The trial court's interpretation was that "GIS formatted i.e. computer mapping formatted information is exempt from disclosure" under that section (*Id.* at p. 3, PA at 1320.)

The trial court's second, and inconsistent, decision, contained in the Statement of Decision, attempted to avoid appellate de novo review of the statutory construction of section 6254.9 by couching its legal conclusion as a finding of fact, namely that "[T]he OC Landbase data, which is in a GIS file format, constitutes a part of a computer mapping system." (Statement of Decision (SOD), 5 PA Tab 25 at 1349:12-13.)

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<sup>1</sup> Section references in this brief will be to the Government Code unless otherwise specified.

Since section 6254.9 states that “computer software,” as the term is used in the PRA, “includes computer mapping systems,” and since, per section 6254.9, computer software is not a public record under the PRA, the trial court held that Orange County is not required to disclose the OC Landbase under the PRA. (*Id.* at p. 1353:19-22.)

But neither the trial court nor Orange County has advanced any proposed statutory interpretation under which some types of GIS data could be “part of” a computer mapping system, and other types would not be “part of” a computer mapping system. Without such a rule of law to apply to the specific adjudicative facts of this case, the factual determination is irrelevant. Since there is no principled basis on which to decide which GIS data is to be considered software under the public records act, this Court must decide either that all GIS data is software or no GIS data is software. As argued below, and in the Sierra Club’s briefs, the correct interpretation is that the section 6254.9 computer software does not apply to GIS data.

## **II. Discussion**

The issue in this case is the correct statutory interpretation of section 6254.9(b), which reads:

As used in this section, “computer software” includes computer mapping systems, computer programs, and computer graphics systems.

As discussed extensively in the Sierra Club’s Petition (Petn. at 26-42), the correct interpretation is the one adopted by the Attorney General in his 2005 opinion (88 Ops.Cal.Atty.Gen 153 (2005), 1 PA Tab 3 at 182-84.)). He concluded that “computer mapping systems,” as used in section 6254.9(b) refers to computer mapping system software, and does

not include GIS data. (*Id.* at p. 179.) Therefore, “computer software,” as used in that section does not include GIS data such as the OC Landbase.

**A. GIS Data is Computer Mapping Data, and Is Becoming So Common that Soon Most Databases Will Contain GIS Data.**

Geographic Information Systems (GIS) are “computer application[s] used to store, view and analyze geographical information, especially maps.” (American Heritage Dict. (4th ed. 2006) p. 735.) Internet mapping applications such as Mapquest and Google Maps are the best-known GIS systems. They consist of two parts: 1) a database of GIS data, and 2) software that displays and manipulates the data. The GIS database contains information on the location and configuration of streets and highways, parks, cities, water bodies, etc. When called upon to display a map of a specific location, the GIS software reads the GIS data from the database and interprets it to create a displayable map.

Another widely used GIS application is geocoding, which translates street addresses into geographical coordinates such as latitude and longitude. When a user enters an address into a computer mapping application such as Mapquest or Google Maps, the first thing the software must do is geocode the address. It does this by consulting a GIS database containing street addresses or address segments and their corresponding geographical coordinates.

These same elements are packaged in a different way in automobile GPS navigation systems, another GIS application. When the user enters a destination address, the system software geocodes it using the system’s internal database, then calculates the best route using another internal GIS database. Emergency vehicles are routed to their destination using a conceptually similar system.

GIS is widely used in government and industry. Some of the specific applications include:

- Mapping – most maps are produced using GIS systems.
- Utilities – GIS is used to keep track of the specific locations of pipes, wires, hydrants, drains, etc.
- Forestry – GIS is used to maintain information about the different types and characteristics of trees in forests, as well as for fire protection and prevention activities.
- Hydrology – land topography, maintained in a type of database called a digital elevation model, is used to calculate and model flows of water over the landscape.
- Public Health – Epidemiologists use GIS to track, predict and prevent the spread of diseases.
- Geology and Petroleum Extraction – GIS is used to create three-dimensional models of geological structures beneath the surface of the earth, to determine where oil drilling will be most productive.
- Traffic – Models of traffic flow are GIS-based, and allow engineers to predict how traffic networks will behave with various traffic flow rates and characteristics, and to shift traffic flows in near real-time in response to accidents and emergencies.

These are just a few of the many current uses of GIS. GIS allows data to be displayed graphically, for example as maps. It also allows the computer software to analyze data using a combination of spatial and other characteristics. For example, a GIS forestry database could be queried to find forest areas with more than 20% diseased trees at an

elevation higher than 2,000 feet and to display those areas in a different color on a map display of the area in question.

**1. The distinction between software and data is clear and well defined.**

Software consists of “the programs, routines, and symbolic languages that control the functioning of the hardware and direct its operation.” (American Heritage Dict. (4th ed. 2006) p. 1652, col. 2., PA at 1315.) Data is the information that computer software interprets and manipulates.

**2. GIS Data is kept in files and databases.**

GIS data is usually tabular in nature, like a spreadsheet, with each row or record of data corresponding to an item, and each column representing a characteristic of each item. For example, a fire-hydrant table would contain one row of data for each fire hydrant. Columns would represent the type of hydrant, the coupling type, the maximum flow, and the hydrant’s location. Such a table would look like this:

<b>Hydrant Type</b>	<b>Coupling Type</b>	<b>Maximum Flow</b>	<b>Location Latitude</b>	<b>Location Longitude</b>
Industrial	X225	935	33.786251	-118.191385
Residential	P123	422	33.745573	-117.867834
Small	B111	117	34.061850	-118.298700

Such a table could be kept in a computer file, or as a table in a database. A variety of data formats are available. The hydrant table could be kept in a comma- or tab-separated text file, or in a spreadsheet file. A great many types of software, including GIS software, could read such a file. The hydrant table could also be maintained as a table in a relational database such as a Microsoft Access database. Relational database

systems like Access allow many named data tables like the fire-hydrant table to be kept in a single computer file. The database software enforces constraints dictated by the database structure, for example that the maximum flow rate is a number.

**Figure 1**  
**Accessing Data in Files and Databases**

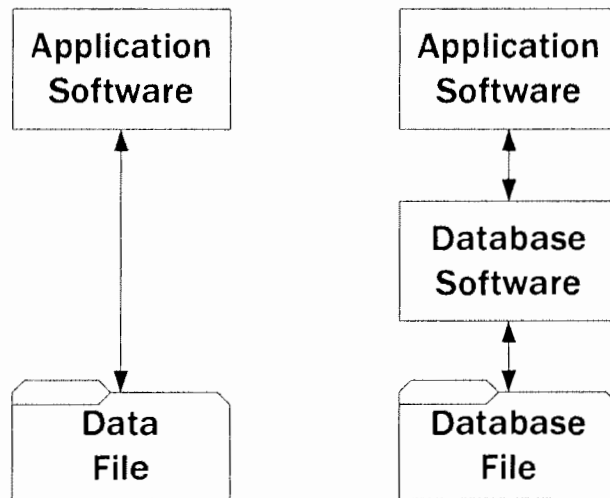


Figure 1 shows how data in files and databases is accessed. Application software is the software that directly performs the tasks requested by the user. For example, Microsoft Word, the word-processing program, is application software that displays a view of a document on a computer screen, allows the user to manipulate the document data on the computer, and prints the document on a printer. For MS Word, the data file is the .doc file in which MS Word stores data that can be used to reconstruct the document.

As described above, some applications store data in databases. For example, a commercial accounting system used by a financial institution stores its data in a set of tables within a database. Another layer of software is required in this case – database software, which manages the



storage and manipulation of many interrelated tables of data stored in a single file on disk. Database software is software because it is procedural code that is executed on a computer to perform certain functions.

The structure of data may be simple or complex. A file containing just text has a simple structure, where a MS Word file or a database file has a complex internal structure. Complex structure does not make data into software; it just requires the software that manipulates and interprets it to be more complex.

### **3. The OC Landbase is pure data.**

In this case, the Sierra Club requested a copy of the “OC Landbase” from Orange County under the California Public Records Act (PRA). The Sierra Club made several requests for the data over a period of time. At first, the data was requested in a file format – ESRI shapefile. (1 PA Tab 1 at 16.) Then, after learning that Orange County distributed the OC Landbase in another GIS file format, MGE format (OC Public Works FAQs as of June 22, 2008, 1 PA Tab 1 at 49), the Sierra Club requested it in that format. (1 PA Tab 1 at 52). Orange County subsequently switched to Oracle Spatial 10g, a GIS database format, for distribution of its OC Landbase (OC Public Works FAQs as of August 23, 2009, 1 PA Tab 3 at 118). If the Sierra Club receives the data in Oracle Spatial format, it can convert it to ESRI Shapefile format for use with the ArcView software, which it has independently licensed from the software developer ESRI.

The parties stipulated that the OC Landbase, as distributed to its licensees by Orange County, and as requested by the Sierra Club, is data only, and contains no software.<sup>2</sup>

The OC Landbase is a set of tables of information about the legal parcels of land in Orange County. (*See* Respondent County of Orange’s Response to Special Interrogatories, Set No. One, PA Tab 13 at 569-570.) The Attributes Table contains one row of information for each parcel of land. Columns include Assessor Parcel Number (APN), street address, and owner name. (OC Landbase FAQs as of August 23, 2009, 1 PA Tab 3 at 116; OC Landbase documentation provided to licensees, PA Tab 13 at 589.) There is also a Cadastre Table containing mapping data for the parcel, which this brief will refer to as “parcel geometry data.” The parcel-geometry information for each parcel delimits the parcel’s boundaries, referenced to specific locations on the earth. The parcel-geometry data is conceptually equivalent to a metes-and-bounds description of the parcel, something like: starting at latitude Y, longitude X, go north 100 feet, then, from that point, east 200 feet, then south 100 feet, then back west 200 feet in a straight line to the starting point.

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<sup>2</sup> The stipulation reads “The OC Landbase in the format the Sierra Club has requested, and in which it is currently distributed to OC Landbase licensees, does not contain programs, routines, and symbolic languages that control the functioning of computer hardware and direct its operation.” (Stipulated Fact No. 20, 5 PA Tab 18 at 1083.) This is a stipulation that the OC Landbase does not contain software, since the latter part of this sentence, “programs, routines, and symbolic languages . . .” is the definition of software quoted from the American Heritage Dictionary (4th ed. 206) p. 1652, col. 2., PA at 1315.

**4. No bright line distinguishes GIS data from other data, so the trial court's ruling could potentially exempt most computer data from disclosure under the PRA.**

In the fire-hydrant data-table hypothetical described above, the location of a hydrant could be stored as numbers in two columns: latitude and longitude, in decimal degrees. Would that make the fire-hydrant table GIS data, even if the data was kept in a comma-separated text file or an Excel spreadsheet file, i.e. not in a GIS file format? What if, instead of latitude and longitude, the table contained the street address nearest to the hydrant? The address could be geocoded by appropriate software on demand, giving an approximate hydrant location. Would such a table, containing street addresses but no latitude and longitude, be GIS data?

The lack of a bright line between GIS data and other data is significant in this case, as will be discussed below. The trial court held that the OC Landbase is “part of” a computer mapping system. Would the trial court hold that the hypothetical hydrant data table is also part of a computer mapping system, because it contains GIS data? Would this holding apply even if the file was maintained as an Excel spreadsheet using MS Excel software, and no GIS software was ever used to display or manipulate the information in the file? Would it apply if the file contained addresses and no latitude or longitude? If so, any data file or database containing addresses, maintained by a state or local agency, would be “part of” some hypothetical computer mapping system.

**5. GIS data is becoming ubiquitous.**

The standard practice for systems developed by or for the State of California is to geocode all addresses that are entered into the system. (State of California, California Technology Agency, *Enterprise Architecture*

*Practice: Geocoding Practice* (2010) p. 2 <

[http://www.cio.ca.gov/wiki/GetFile.aspx?File=%2fEA%2fStandards%2fPublished%2fSRM\\_74.742.590.3\\_Geocoding\\_Practice%2c\\_%2012152010.pdf](http://www.cio.ca.gov/wiki/GetFile.aspx?File=%2fEA%2fStandards%2fPublished%2fSRM_74.742.590.3_Geocoding_Practice%2c_%2012152010.pdf)>.) This means that, in the future, all state databases containing addresses will also contain GIS information.

Similarly, in Orange County, a GIS Needs Assessment Study recently commissioned by the County stated that “nearly 90% of the information in the county’s databases is location-based, meaning that each information item pertains to a place on the earth.” (GIS Needs Assessment Study, attached as Exhibit 2 to Petitioner’s Request for Judicial Notice filed concurrently with Petition for Extraordinary Writ, at OC-1029.) The study recommends that data residing in other county databases be geocoded. (*Id.* at OC-1459.)

From the above policy and recommendation it is apparent that, in the near future, virtually all databases maintained by public agencies will contain GIS data, if only geocoded addresses. Under the trial court’s reasoning, all such databases would be excluded from public-record status by the section 6254.9 computer-software exception.

***B. The OC Landbase is Fundamentally Different From the Paper Documents it was Built From.***

Orange County repeatedly cites its willingness to provide paper documents, or PDF images of them, containing the information in the OC Landbase. (*See, e.g.* Return at 18.) As argued in Petitioner’s Reply, this is legally irrelevant because section 6253.9 requires local agencies to provide computer data in the requested electronic format, if that format is one in which the agency maintains the data or distributes the data to outside entities.

The OC Landbase, as an organized table of parcel data, is fundamentally different from the paper records offered by Orange County. The OC Landbase data is organized into a uniform tabular scheme, so that it may be queried, displayed and manipulated in a uniform way. And the presence of a record in the OC Landbase indicates that Orange County considers the information in the record to be current as of the date of the OC Landbase. In contrast, a parcel map may show parcel geometry that is not current, due to, say, a lot-line adjustment that occurred after the map was drawn.

The millions of pages of paper documents offered by Orange County in lieu of the OC Landbase are not the equivalent of the OC Landbase. Even if the information contained in them were exactly the same as the information in the OC Landbase, section 6253.9 still requires Orange County to disclose the OC Landbase under the PRA.

***C. The Correct Statutory Interpretation of Section 6254.9 is the Attorney General's Plain-Meaning Interpretation – that “Computer Software” means Software Only, Not Data.***

This Court must choose between:

- The Attorney General’s plain-meaning interpretation, articulated in its official 2005 opinion on the subject (88 Ops.Cal.Atty.Gen 153 (2005), 1 PA Tab 3 at 182-84), which concludes that “computer mapping systems,” as the term is used in section 6254.9(b) refers to computer mapping system ***software***, and therefore the section 6254.9 computer-software exception does

not apply to GIS data such as parcel data, or to any other type of data. (*Id.* at p. 179)<sup>3</sup>

- The trial court’s interpretation that, “Per GC 6254.9, GIS formatted i.e. computer mapping formatted information is exempt from disclosure.” (Minute Order, 5 PA Tab 21 at 1320.)

The trial court’s Statement of Decision contains a third interpretation, inconsistent with both of the above. As explained below, it must be disregarded.

**1. Section 6253.9(f) clearly distinguishes between the “record” and the “proprietary software in which it is maintained.”**

Section 6253.9, which requires state and local agencies to provide electronically stored information in the format in which it is maintained by the agency or the format in which it is provided to other agencies, includes the following subsection:

Nothing in this section shall be construed to require the public agency to release an electronic record in the electronic form in which it is held by the agency if its release would jeopardize or compromise the security or integrity of the original record or of any proprietary software in which it is maintained.

(Section 6253.9(f).) This subsection distinguishes between the “electronic record” and the “software in which it is maintained.” The distinction would make no sense if “software” were interpreted to include data. This is evidence from the same statute that the legislature did not intend to use “software” in a sense that includes any type of data.

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<sup>3</sup> Though the Attorney General’s opinion was focused on land parcel GIS data, the reasoning applies equally to other types of GIS data.

**2. The Minute Order contains an interpretation of 6254.9 that is inconsistent with the interpretation in the Statement of Decision.**

The trial court, in the Minute Order that it drafted, articulated a rule of law that “Per GC 6254.9 GIS formatted i.e. computer mapping formatted information is exempt from disclosure.” (Minute Order, 5 PA Tab 21 at 1320.) Orange County has never during the long history of this case articulated its proposed interpretation of section 6254.9, so the Sierra Club in its Petition formulated an interpretation based on Orange County’s arguments. (Petn. at 30.) This interpretation was the same as the same as the one set forth in the trial court’s Minute Order, namely that GIS data is not a public record because it is included within the term “computer mapping systems” in section 6254.9(b), and therefore falls within that section’s computer software exception. (*See, e.g.* Return at 2.)

For the reasons set forth below and in the Sierra Club’s Petition (Petn. at 29-42), this statutory construction of section 6254.9 is incorrect.

**3. The Statement of Decision was not based on a viable rule of law, and affirming it would lead to a great deal of unnecessary litigation.**

The trial court, in its Statement of Decision (SOD), held that:

- Computer software is exempt from disclosure under the PRA, per section 6254.9 (SOD at 7:7, PA at 1353.);
- Computer software includes “computer mapping systems” per section 6254.9(b) (SOD at 7:18-19, PA at 1353.);
- The OC Landbase is, as a factual matter, “part of” a computer mapping system. (SOD at 7:20, PA at 1353.);

- Therefore, the OC Landbase is not a public record, and not subject to disclosure under the PRA (SOD at 7:21-22, PA at 1353.)

But the SOD provides no guidance on how such a holding, if affirmed on appeal, could be applied to other cases. It did not state how it interpreted the computer software exception in section 6254.9, and it contained no analysis showing how its interpretation applied to this case.

How is the factual inquiry to be undertaken as to whether a particular GIS data set is “part of” a computer mapping system? The trial court did not say why GIS parcel data such as the OC Landbase should be considered as “part of” a computer mapping system while other types of GIS data, for example data showing the location of fire hydrants, is not legally “part of” a computer mapping system, as that term is used in section 6254.9(b).

Neither the trial court nor Orange County has ever articulated a possible rule of law under which the OC Landbase would be excepted<sup>4</sup> from disclosure but other types of GIS data would not be. Neither the trial court nor Orange County has proposed a test to be applied to data to determine whether it is part of a “computer mapping system.” Therefore the Statement of Decision’s interpretation of section 6254.9 must be disregarded, because it is based on an indeterminable rule of law.

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<sup>4</sup> Excluding computer software from public-record status, as section 6254.9 does, will be referred to as an “exception” in this brief. The word “exemption” is reserved for situations where documents or data are public records, but exempted from disclosure by a statutory provision, e.g. records pertaining to pending litigation exempted by section 6254(b).



There is no tenable middle ground between the Attorney General's plain-meaning interpretation – that the section 6254.9 computer-software exception applies only to software – and the trial court's Minute Order interpretation– that the software exception applies to all GIS data. Therefore this Court must choose between these two interpretations. If this Court ruled as the trial court did in the SOD – that some GIS data is included in the section 6254.9 software exception – without articulating a factual test to determine which GIS data are excepted and which are not, lower courts would not be able to apply the ruling in future cases and a great deal of litigation would result. This Court should choose the Attorney General's plain-meaning construction of section 6254.9, which is the correct one, as explained in the Sierra Club's Petition. (Petn. at 29-42.)

**4. The Minute Order shows that the trial court does not understand the meaning or the legal import of software “execution,” and therefore the trial court’s ruling was erroneous to the degree it was based on the execution of Orange County’s GIS software.**

The trial court, in its final Minute Order (PA Tab 21, at 1318-21), states that

...the Sierra Club views its request as one for the public record extracted from the computer mapping system software while the County views the request as one for licensing of the software without paying the licensing fee.

However, the Sierra Club fails to recognize that its request for the OC Landbase in GIS format cannot be accomplished without execution of the Computer Mapping System software which the County has a statutory right to license under GC 6254.9. . . . [T]he County has agreed to make the information the Sierra Club seeks available in other format so as not to invoke the licensing of the computer mapping system as a means of extracting or compiling the information sought” (PA at 1319-20.)

This statement shows a complete misunderstanding of the nature of computer software and the relationship of computer software to data. If the trial court based its interpretation of section 6254.9 on this misunderstanding, its ruling was incorrect.

Execution of software means the performance of the functions or the carrying out of the instructions of the computer software. (Bus. & Prof. Code section 22947.1(g).) Performing any operation on a computer requires the execution of software. Even copying a file already in existence to another medium such as a CD, requires the execution of a computer copy program. However, copying an existing file to another medium, as would be required for Orange County to give the Sierra Club a copy of its OC Landbase, does not require execution of any proprietary or special-purpose software that could be called a “computer mapping system.” Making such a copy just requires using the general-purpose copy utilities already available on any commercial computer system.

Furthermore, even if making a copy of the OC Landbase required execution of Orange County’s GIS software, this would be legally irrelevant. The PRA contains no exemption or exception when providing the public record requires the execution of computer software, or the execution of computer mapping system software. Section 6254.9 simply states that the GIS software which Orange County uses to maintain the OC Landbase is not a public record, and therefore the public cannot require Orange County to produce a copy of the GIS software itself under the Public Records Act.

The trial court's ruling is based on faulty understanding of the relevant technical facts and the correct statutory interpretation of section 6254.9, and should be rejected by this court.

**5. "Computer Mapping Systems," as the Term is Used in Government Code section 6254.9(b), Refers to Software, Not Data.**

The word "systems," as used in the terms "computer mapping systems" and "computer graphics systems" in section 6254.9(b), and in GIS ("geographic information systems") is ambiguous. In technical parlance, a system is "a collection of components, items or equipment organized or designed to accomplish a specific function or set of functions." (Dictionary of Computer Science Engineering and Technology (CRC Press, 2000) p. 483.) Which components are included depends on the context. In various contexts, "system" can mean:

- A software system, which is a collection of software modules integrated to form a software package. (*See, e.g.* Wikipedia definition of "Software System," available at [http://en.wikipedia.org/wiki/Software\\_system](http://en.wikipedia.org/wiki/Software_system) (last visited August 13, 2010.)
- Software, hardware and data: (*See, e.g.*, Penal Code section 502(a)(5) ["Computer system" means a device or collection of devices, including support devices and excluding calculators that are not programmable and capable of being used in conjunction with external files, one or more of which contain computer programs, electronic instructions, input data, and output data, that performs functions including, but not limited to, logic, arithmetic, data storage and retrieval, communication, and control.]; SOD at 3, note 1, PA at 1349 [the term "OC Landbase" sometimes refers

to the “‘whole system’ of hardware, software and incorporated data.”].)

- Software, and data: (See, e.g. ESRI, A to Z GIS, An Illustrated Dictionary of Geographic Information Systems, 2010, 5 PA Tab 20 at 1307 [definition of GIS: “an integrated collection of computer software and data used to view and manage information about geographic places, analyze spatial relationships, and model spatial processes. A GIS provides a framework for gathering and organizing spatial data and related information so that it can be displayed and analyzed.”].)

Thus, “system” is ambiguous, potentially referring to hardware, software, a combination of both, a combination of software and data, or all three.

It is the inclusion of this ambiguous word “systems” in the definition of computer software in section 6254.9 that opens the door, at least a crack, to Orange County’s erroneous interpretation that “computer mapping systems” includes GIS data. If section 6254.9(b) read, hypothetically, “As used in this section, ‘computer software’ includes computer mapping *software*, computer programs and computer graphics *software*,” it would be obvious that this subsection applied only to computer software and not data. As it is, the term “systems,” as used in section 6254.9(b) is ambiguous, so the various tools of statutory interpretation must be brought to bear on the section to determine its meaning. The subsection is analyzed in depth in the Sierra Club’s petition (Petn. at 29-42.)

Amici can add one substantive comment. Stretching the definition of the term “computer software” to include any type of data is extremely

unnatural, and contrary to the established technical meaning of “computer software.” GIS practitioners would never include GIS data such as the OC Landbase in a category labeled “software.”

On the other hand, given the ambiguity of the term “system” in “computer mapping systems,” one very natural interpretation of “computer mapping systems” in section 6254.9(b) is “computer mapping system software.” Interpreting section 6254.9(b) as the Attorney General did, to mean “‘computer software’ includes computer mapping *software*, computer programs, and computer graphics system *software*” does no violence to the natural meaning of any of the terms. But interpreting the section to mean, as the trial court did in its Statement of Decision, “‘computer software includes computer mapping *software and GIS data*, computer programs, and computer graphics systems” extends the meaning of “computer software” in a very unnatural way. The Court should reject the trial court’s interpretation, especially in light of the constitutional requirement that it construe the section 6254.9 software exception narrowly. (Cal. Const. Art. I, section 3, subd. (b), par. 2.)

**6. The term “developed,” used in section 6254.9, customarily applies to software, not data, indicating that section 6254.9 does not apply to GIS data.**

Section 6254.9(a) provides an exception for computer software:

Computer software developed by a state or local agency is not itself a public record under this chapter. The agency may sell, lease or license the software for commercial or noncommercial use.

The term “developed” is a term of art, referring to the process used to develop software, not data or databases. (*See, e.g.* Dictionary of Computer Science Engineering and Technology (CRC Press, 2000) p.

132 [“development” defined as “the sum of all activities that are necessary to build a software product.”].)

The great majority of software used to maintain the OC Landbase is licensed from commercial software developers. (*See* County of Orange’s Response to Special Interrogatories, Set No. One, PA Tab 13 at 567-69 [GISNet Landbase Maintenance platform “developed by MRF GeoSystems,” GeoResearch Web application “developed by MRF GeoSystems,” Oracle RDBMS “developed by Oracle Corporation,” ArcSDE, ArcGIS 9.3 Mapping applications “developed by ESRI,” miscellaneous small applications developed in-house.].) Note that, in referring to the software programs they use to maintain their OC Landbase, Orange County uses the term “developed” to refer to the development of software.

These commercial applications are software, but they don’t fall within the section 6254.9 software exception because, as Orange County admits in the above-cited interrogatory responses, they were not developed by Orange County. The Sierra Club has not requested that Orange County provide copies of these commercial software programs under the PRA.

But the Sierra Club did request the OC Landbase data under the PRA. It stretches the word “developed” beyond its usual technical meaning to apply it to a GIS database such as the OC Landbase, because the OC Landbase is not software. It is also conceptually difficult to see how the OC Landbase data could be “part of” a “computer mapping system” “developed” by the County when the majority of the actual software in that computer mapping system consists of computer mapping applications licensed from third parties.

**D. The Attorney General's Plain-Meaning Interpretation of Section 6254.9 Will Lead to Much Better Public Policy Outcomes.**

Much more information is created as computer data than as paper documents now, and the proportion of new information created as paper documents keeps shrinking. (U.C. Berkeley School of Information Management and Systems, *How Much Information? 2003*, p. 4, available at < [http://www2.sims.berkeley.edu/research/projects/how-much-info-2003/printable\\_report.pdf](http://www2.sims.berkeley.edu/research/projects/how-much-info-2003/printable_report.pdf)> (last visited Dec. 27, 2010) [ratio of amount of created information stored digitally to amount of created information stored on paper increased from 2,317 to 3,124 between 1999 and 2002].)

As the use of GIS technology becomes more mainstream, an increased proportion of computer-stored data is GIS data. (See GIS Needs Assessment Study, attached as Exhibit 2 to Petitioner's Request for Judicial Notice filed concurrently with Petition for Extraordinary Writ, at OC-1029 ["nearly 90% of the information in the county's databases is location-based, meaning that each information item pertains to a place on the earth."].)

If this Court expands the definition of "computer software" in section 6254.9(b) to include GIS data, it would have far-reaching consequences. Such a decision could eventually prevent the majority of California public records from being disclosed under the PRA since, as discussed above, most new public records are computer data, and most computer data records contain location-related information, which makes it, at least potentially, GIS data. This would go against the current trend, which is toward increasing public access to computer data.

There is no evidence in the legislative history of section 6254.9 that the legislature intended such a wide application of the computer-

software exception. (*See* Legislative History of AB 3265, PA Tab 17 at 934-1280.)

**1. The legislative trend is toward putting computer data on an equal footing with paper records.**

In 2009, the Legislature enacted the Electronic Discovery Act (Assem. Bill No. 5 (2008-2009 Reg. Sess.)) This act confirmed the right of civil litigants to obtain discovery of electronically stored information, which is essentially equivalent to computer data. (*See, e.g.* Code Civ. Proc. section 1985.8.) This California statute followed similar changes made in 2006 to the Federal Rules of civil Procedure. “Rule 34(a) is amended to confirm that discovery of electronically stored information stands on equal footing with discovery of paper documents.” (Advisory Committee Note to Rule 34 of the Federal Rules of Civil Procedure, subdivision (a).)

Under these statutes, the OC Landbase would be discoverable in a civil lawsuit, like the documents that the OC Landbase was derived from.

These statutes reflect an overarching legislative policy that electronically stored information should be treated the same way as paper documents under the law. Each year, a larger portion of the information used by government agencies and businesses is created and maintained as computer data. Providing an exception to PRA disclosure for GIS data would frustrate the purpose of the PRA, which is to provide access to information concerning the conduct of the people’s business. (Section 6250.)



**2. Orange County's licensing restrictions impair sharing of parcel data with other state and local agencies and with the public.**

If this Court were to sustain the trial court's conclusion that GIS data is computer software under section 6254.9, it would severely impair California state and local agencies' ability to use and share GIS data among governmental units. Currently, the vast majority of California counties provide their GIS parcel data without licensing restrictions, charging only the direct cost of copying the data. (Declaration of Bruce Joffe, 3 PA Tab 13 at 533.) Nineteen California counties that formerly charged higher fees for their parcel data changed their data distribution policy to conform to PRA requirements following the 2005 Attorney General Opinion. (*Id.* at 534.) If this court rules that GIS parcel data is software under section 6254.9 and therefore not a public record, these and other counties are likely to reverse their policies and revert to charging substantially higher fees for GIS parcel data. This will hurt the public sector in two ways.

First, many of the countys' customers are other public agencies. (See Orange County, Digital Landbase / GIS Mapping Sales by Fiscal Year spreadsheet, 1 PA at 145-55. [Orange County Fire Agency pays between \$44,428 and \$46,730 for Orange County parcel data every year between 2000 and 2007, City of Brea pays \$20,238 in 2004, Southern California Water District pays \$11,087 in 2005, Los Angeles Metropolitan Water District pays \$20,055 in 2005, California Department of Forestry pays \$12,337 in 2005, etc.] A substantial part of the costs that Orange County recoups by selling its OC Landbase data comes from taxpayers, via other public agencies. It is likely that many agencies that could use the parcel data to improve their services to the public refrain from acquiring the data because they cannot afford it.

However, the licensing fees are not the only drag on the system imposed by Orange County's licensing requirements. Orange County requires OC Landbase data purchasers to sign agreements which restrict the distribution of the data. (See OC Public Works Landbase Information Systems FAQs, 1 PA at 167 ["Any purchaser of said data shall take all reasonable precautions to protect and maintain the confidentiality of the Landbase."]) This prevents public and private users of the data from packaging it with other data and redistributing it. Potential synergies from such combinations are enormous – for example, merging building inspection data onto a parcel basemap to track city inspections of construction projects – but they are foreclosed by Orange County's restrictive data distribution policy.

It will tremendously benefit the public as well as other public agencies if this Court holds that GIS data is not software under section 6254.9, because that ruling would enable a much wider sharing of the public's OC Landbase data.

**3. State and Federal aggregation of GIS data would be severely impaired if the trial court's interpretation of section 6254.9 were upheld on appeal.**

There is a trend among state governments toward aggregating GIS parcel data from all counties within the states in order to provide a statewide land parcel (also known as "cadastral") database. (See, e.g. Minnesota Geospatial Information Office, MSDI Data Cadastral, available at <<http://www.mngeo.state.mn.us/MSDI/workgroups/cadastral.htm>> (last visited December 28, 2010 ["Parcel data rank among the top needs of Minnesota governments. . . . The goal of the Cadastral I-Plan is that all parcel data within Minnesota be maintained by the primary producers,

generally counties, in digital formats that can be assembled easily for multi-county and statewide applications. . . Licensing restrictions and cost recovery policies of data producers can inhibit joint data development, data availability, and data aggregation across jurisdictional boundaries.”].)

California is making efforts in this direction. (*See, e.g.*, California Office of the State Chief Information Officer, *Parcels* (Sep. 27, 2009), available at <<http://www.cio.ca.gov/wiki/Parcels.ashx>>.) Orange County has agreed to provide its GIS parcel data for use in this project, but has imposed licensing restrictions that severely restrict the distribution of the resulting state-wide data set.

There is also a parallel federal effort, the (See Federal Geographic Data Committee, FGDC Cadastral Subcommittee Status Update (June 2008), available at <<http://www.nationalcad.org/data/documents/Status-Report-June-2008.pdf>> (last visited Dec. 28, 2010).)

The purpose of these parcel-aggregation data projects is to make uniform land-record data available to public- and private-sector users, for a wide variety of uses, including strategic planning, regional planning, emergency response, etc.

A state or federal land-parcel database would be much more useful to public agencies and to the public if it could be freely distributed at no charge and with no licensing restrictions. If this court adopts the Attorney General’s plain-meaning interpretation of section 6254.9, GIS parcel data – and other types of GIS data – maintained by state and local agencies will be freely available for inclusion in state and federal GIS

databases, without licensing restrictions. This will be a substantial public benefit.

### **III. Conclusion**

For the above reasons, this Court should hold that “computer mapping systems,” as the term is used in section 6254.9 refers to computer mapping system software, and does not include any data. Therefore the Court should order the Respondent Superior Court to vacate its August 3, 2010 Decision and Judgment and to grant the Sierra Club’s motion for writ of mandate compelling Orange County to produce the OC Landbase in the GIS file format requested by the Sierra Club for the direct cost of copying the files onto a CD or DVD.

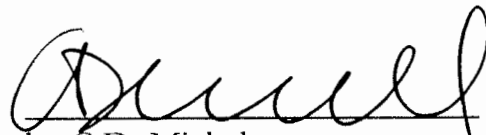
## **Certificate of Compliance**

Counsel for GIS Community Amici Curiae hereby certifies that pursuant to Rule of Court 8.204(c)(1), the attached Amicus Brief was produced on a computer and contains 7,589 words, not including this certificate or the tables of contents and authorities. Counsel relies on the word count of the Microsoft Word computer program used to prepare this brief.

Counsel for GIS Community Amici Curiae also certifies that no counsel for a party participated in the drafting of any portion of this brief, and no person other than the amici curiae listed in the brief contributed monetarily or substantively to it.

Dated: January 12, 2010

MICHEL & ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read "C.D. Michel", written over a horizontal line.

by C.D. Michel,  
Attorney for GIS Community Amici

PROOF OF SERVICE

STATE OF CALIFORNIA  
COUNTY OF LOS ANGELES

I, Christina Sanchez, am employed in the City of Long Beach, Los Angeles County, California. I am over the age eighteen (18) years and am not a party to the within action. My business address is 180 East Ocean Boulevard, Suite 200, Long Beach, California 90802.

On January 12, 2011, I served the foregoing document(s) described as

**APPLICATION FOR PERMISSION TO FILE BRIEF AND BRIEF  
OF GIS COMMUNITY AMICI CURIAE IN SUPPORT OF THE  
SIERRA CLUB'S PETITION FOR EXTRAORDINARY WRIT**

on the interested parties in this action by placing  
[ ] the original  
[X] a true and correct copy  
thereof enclosed in sealed envelope(s) addressed as follows:

**SEE ATTACHED SERVICE LIST**

- X (MAIL OVERNIGHT) As follows: I am "readily familiar" with the firm's practice of collection and processing correspondence for overnight delivery by UPS/FED-EX. Under the practice it would be deposited with a facility regularly maintained by UPS/FED-EX for receipt on the same day in the ordinary course of business. Such envelope was sealed and placed for collection and delivery by UPS/FED-EX with delivery fees paid or provided for in accordance with ordinary business practices. Executed on January 12, 2011, at Long Beach, California.
- X (FEDERAL) I declare that I am employed in the office of the member of the bar of this of this court at whose direction the service was made.

  
CHRISTINA SANCHEZ

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