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- Plaintiff/Petitioner MERRILEE DAVIES is a resident and registered voter of 28. Tulare County, California.
- 29. Plaintiff/Petitioner BERNICE M. KANDARIAN is a resident and registered voter of Santa Clara County, California. Ms. Kandarian has low vision. Ms. Kandarian is the President of the Council of Citizens with Low Vision International.
- 30. Plaintiff/Petitioner VICTORIA POST is a resident and registered voter of San Francisco County, California. Ms. Post is also blind.
- 31. Plaintiff/Petitioner VERONICA ELSEA is a resident and registered voter of Santa Cruz County, California. Ms. Elsea is also blind.
- Defendant/Respondent BRUCE MCPHERSON is the Secretary of State of California and the Chief Elections Officer for the state.
- 33. Defendant/Respondent ELAINE GINNOLD is the Acting Registrar of Voters for the County of Alameda and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Alameda County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- 34. Defendant/Respondent VICTOR E. SALAZAR is the Registrar of Voters for the County of Fresno and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Fresno County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- 35. Defendant/Respondent CAROLYN WILSON CRNICH is the Registrar of Voters for the County of Humboldt and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Humboldt County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- 36. Defendant/Respondent ANN BARNETT is the Registrar of Voters for the County of Kern and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Kern County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
  - Defendant/Respondent THERESA NAGEL is the County Clerk for the County of

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Lassen and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Lassen County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.

- 38. Defendant/Respondent CONNIE MCCORMACK is the County Clerk for the County of Los Angeles and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Los Angeles County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent MICHAEL SMITH is the Registrar of Voters for the County of Marin and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Marin County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent MARSHA WHARFF is the County Clerk for the County 40. of Mendocino and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Mendocino County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent MAXINE MADISON is the County Clerk for the County of Modoc and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Modoc County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent JIM MCCAULEY is the County Clerk for the County of 42. Placer and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Placer County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent KATHLEEN WILLIAMS is the Registrar of Voters for the County of Plumas and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Plumas County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
  - Defendant/Respondent MIKEL HASS is the Registrar of Voters for the County 44.

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of San Diego and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, San Diego County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.

- Defendant/Respondent DEBORAH HENCH is the Registrar of Voters for the County of San Joaquin and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, San Joaquin County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent JULIE RODEWALD is the County Clerk for the County of San Luis Obispo and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, San Luis Obispo County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent JOSEPH E. HOLLAND is the County Clerk for the County of Santa Barbara and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Santa Barbara County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent COLLEEN BAKER is the County Clerk for the County of Siskiyou and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Siskiyou County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- 49. Defendant/Respondent DERO B. FORSLUND is the County Clerk for the County of Trinity and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Trinity County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
- Defendant/Respondent JERRY T. MESSINGER is the Registrar of Voters for the County of Tulare and is responsible for conducting statewide primary and statewide general elections in that county. On information and belief, Tulare County intends to use Diebold AV-TSx touchscreen systems in upcoming 2006 elections.
  - All Defendants/Respondents, apart from the Secretary of State, are referred to

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herein collectively as the "County Elections Officials."

Petitioners are unaware of the true names and capacities of the individuals sued herein as Does 1 through 50, inclusive, and therefore sue these Defendants/Respondents by such fictitious names pursuant to Code of Civil Procedure Section 474. Petitioners will amend this Petition to state the true names and capacities of such fictitiously named Defendants/Respondents when ascertained. Petitioners are informed and believe, and on that basis allege, that the Defendants/Respondents fictitiously named as Does 1 through 25 are County Elections Officials from California counties who seek to purchase or use Diebold Voting Systems in California elections and/or are failing or threatening to fail their election audit responsibilities under Elections Code 153600. Petitioners are informed and believe, and on that basis allege, that the Defendants/Respondents fictitiously named as Does 26 through 50 are also in some manner connected with the matters alleged herein and similarly subject to the relief requested herein.

### JURISDICTION AND VENUE

- Petitioners bring this action for mandamus pursuant to Elections Code Section 13314(a) and/or Code of Civil Procedure Section 1085, for administrative mandamus pursuant to Code of Civil Procedure Section 1094.5, for declaratory relief pursuant to Code of Civil Procedure Section 1060 and Government Code Section 11350, and for injunctive relief pursuant to Civil Code Sections 3420 through 3422. This Court has jurisdiction over actions arising under California law.
- 54. Pursuant to Elections Code Section 13314(b)(1) and Code of Civil Procedure Section 393, venue in this action is proper in Sacramento County. However, "whenever it is provided by any law of this State that an action or proceeding against the State or a department, institution, board, commission, bureau, officer or other agency thereof shall or may be commenced in, tried in, or removed to the County of Sacramento, the same may be commenced and tried in any city or city and county of this State in which the Attorney General has an office." Code Civ. Proc. §401(1). See Harris v. Alcoholic Beverage Control

Appeals Board, 197 Cal. App. 2d 759, 762 (1961). The State Attorney General has an office located at 455 Golden Gate Avenue, #11000, San Francisco, 94102. Thus, venue in this action is proper in the County of San Francisco.

#### **COMMON ALLEGATIONS**

## I. THE EVOLUTION OF LEGAL REQUIREMENTS RELATING TO USE OF ELECTRONIC VOTING MACHINES IN CALIFORNIA ELECTIONS.

### A. Federal Requirements.

- 55. The chaos of the Florida recount in the 2000 Presidential election raised public consciousness about the need to modernize the nation's voting technology. Although media attention largely focused on punch card voting systems, which are now rarely used in California, Diebold's machinery also experienced a massive malfunction in Florida. At one point, a memory card in a Diebold system registered *negative* 16,022 votes for Al Gore. The malfunction led many news organizations to call the election prematurely. Elections officials eventually decided that a hand recount of the system's paper ballots was the only way to determine the true vote count.
- 56. In the debate that followed Florida's election problems, concerns were voiced about many aspects of the voting process including convenience, auditability, vote security and accessibility for the disabled. The federal government weighed in with new legislation—the Help America Vote Act of 2002—that required states to provide voting systems accessible to the disabled and provided federal funds for their acquisition.
- 57. In April 2002, the Federal Election Commission ("FEC") promulgated the voluntary *Voting Systems Performance and Test Standards* ("2002 Standards"). Those revised standards, which replaced earlier standards from 1990, provide guidance for the use of new technologies, most notably Direct Recording Electronic ("DRE") devices. DREs, often referred to as touchscreens, record votes electronically. A true and correct copy of relevant pages from the 2002 Standards is included as Exhibit 1 in the Appendix In Support Of Verified Petition For Writ Of Mandate, Declaratory And Injunctive Relief (the

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"Appendix") which is being filed concurrently with this Petition and is incorporated herein and its contents verified by reference.

#### B. California Laws Protecting The Integrity Of California Elections.

- 58. California has taken additional steps to attempt to ensure that new voting technologies will continue to guarantee the integrity of votes in California elections.
- First, California made compliance with the voluntary federal standards for electronic voting machines mandatory. See Elec. Code §§19250(a-b), 19251(d). Under Elections Code Section 19250(a), the Secretary of State cannot approve a voting system unless it has received "federal qualification." "Federal qualification" means the system is both approved by an independent testing authority ("ITA") and meets or exceeds the voluntary standards set by the Federal Election Commission. Elec. Code §19251(d).
- Second, California passed legislation to ensure that DREs would have a "voter-verified paper audit trail" that would serve as the official record of the vote in a disputed election. See Elec. Code §§19250(a-b), 19251(c), 19253.
- Third, California passed legislation requiring that the contents of a DRE paper audit trail be "accessible" to visually impaired voters. See Elec. Code §§19250(a-b), 19251(a). To be considered "accessible," the contents of the paper trail must be "provided or conveyed to voters via both a visual and a nonvisual method." Elec. Code §19251(a) (emphasis added).
- The California Secretary of State is charged with enforcing the Elections Code and is responsible for certifying whether a voting system meets all the requirements of the Elections Code. Gov't Code §12172.5. The Secretary of State cannot approve a voting system or part of a voting system "unless it fulfills the requirements of this code and the regulations of the Secretary of State." Elec. Code §19200.
- The Secretary of State is responsible for establishing "the specifications for and the regulations governing" voting systems. Elec. Code §19205. The specifications and regulations must ensure that the system is "suitable for the purpose for which it is intended"

and is "safe from fraud or manipulation." Id.

61. County Elections Officials must follow both valid regulations of the Secretary of State and the general mandates of the Elections Code. *See* Elec. Code §§19201(b), 19250(b), Gov't Code §26802. Counties cannot use voting systems "unless [the voting system] has received the approval of the Secretary of State prior to any election at which it is to be first used." Elec. Code §19201(a). They also cannot "purchase or contract for a voting system, in whole or in part, unless it has received the approval of the Secretary of State" (Elec. Code §19201(b)) and met the requirements for federal qualification. Elec. Code §\$19250(b), 19251(d).

### II. THE DUBIOUS HISTORY OF DIEBOLD VOTING SYSTEMS IN CALIFORNIA AND ELSEWHERE.

- A. California's Disastrous Experiment With Diebold Voting Systems In The March 2004 Primary Results In Decertification Of The AV-TSx.
- 62. Diebold marketed and sold its systems—including an earlier version of the AV-TSx touchscreen at issue here—in California for use in the 2004 elections.
- 63. Based on representations from Diebold that federal qualification was imminent and that Diebold would comply with certain conditions, the Secretary of State conditionally certified the AV-TSx on November 20, 2003.
- 64. On February 11, 2004, the Secretary of State asked Diebold to implement two safeguards to its systems before the March 2004 primary election. First, Diebold was required to print an image of each of the ballots cast. Second, Diebold was required to provide voters an option of using a paper ballot.
- 65. During the March 2004 primary election, Diebold voting systems experienced operating problems which severely curtailed voting in San Diego County and significantly affected voting in Alameda County. In a special report on the March 2004 elections, the Secretary of State concluded that:
- (a) Diebold neither alerted elections officials about this equipment problem, nor did it indicate to counties that additional poll worker training or documentation was

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necessary to address this problem. Diebold's own investigation report concedes that its equipment created the problem, not poll worker error.

- The net effect was that the problems with the equipment, together with a lack of documentation and training by the vendor about how to resolve the problem, led to a "worst case scenario" in San Diego County, and serious difficulties in Alameda County. Most polling places had only one PCM machine. Therefore, when the device failed, there were no means for voters to access and use the touchscreen machines in that polling place.
- Without access to the touchscreens, voters could not vote. because San Diego County, despite repeated recommendations from the Secretary of State's office, failed to provide back-up paper ballots at polling places. Over half of San Diego's polling places could not open on time as a result of the equipment failure and the failure to provide back-up paper ballots. Voters were turned away or sent to other polling places to vote provisionally. Presumably, some of these voters cast their ballots later in the day. There was no way to estimate the number of voters who failed to return to the polls after being turned away.

Office of the Secretary of State's Report on the March 2, 2004 Statewide Primary Election (April 2004), at 5. A true and correct copy of this report is included in the Appendix as Exhibit 2.

- Later investigations revealed that some of the problems were traceable to lastminute changes Diebold made to the voting systems.
- On April 20, 2004, the Secretary of State's staff issued a staff report highly critical of Diebold. A true and correct copy of the staff report is included in the Appendix as Exhibit 3. The report concluded that Diebold:
- marketed and sold the AV-TSx system before it was fully functional, and before it was federally qualified;
- misrepresented the status of the AV-TSx system in federal testing in order to obtain state certification:
  - failed to obtain federal qualification of the AV-TSx system despite

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assurances that it would;

- (d) failed even to pursue testing of the firmware installed on its AV-TSx machines in California until only weeks before the election, choosing instead to pursue testing of newer firmware that was even further behind in the ITA testing process and that, in some cases, required the use of other software that also was not approved in California;
  - (e) installed uncertified software on election machines in 17 counties;
- (f) sought last-minute certification of allegedly essential hardware, software and firmware that had not completed federal testing; and
  - (g) in doing so, jeopardized the conduct of the March 2004 Primary. Ex. 3 at 5.
- 68. Citing Diebold's misconduct as outlined in the April 20, 2004, staff report, then-Secretary of State Kevin Shelley decertified the AV-TSx machines.
- 69. Secretary of State Shelley also asked the California Attorney General's office to consider bringing criminal fraud charges against Diebold. The Attorney General launched a criminal investigation but later decided to intervene in a civil False Claims Act lawsuit against Diebold. Diebold paid \$2.6 million to settle the claim.

## B. Numerous Studies of Diebold Products By Other States Show Widespread Security Flaws And Problems.

- 70. The Johns Hopkins University Study. On July 23, 2003, four computer scientists, three from the faculty of Johns Hopkins University and the fourth from the faculty of Rice University, published "An Analysis of an Electronic Voting System." The article reported on their analysis of the source code for the Diebold AccuVote-TS voting terminal, which is the predecessor of the AV-TSx. The authors concluded that "this voting system is far below even the most minimal security standards applicable in other contexts." They highlighted several issues including "unauthorized privilege escalation, incorrect use of cryptography, vulnerabilities to network threats, and poor software development processes." A true and correct copy of the Johns Hopkins report is included in the Appendix as Exhibit 4.
  - 71. The Science Application International Corporation ("SAIC")/Maryland Study.

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On September 2, 2003, Science Application International Corporation ("SAIC") issued a "Risk Assessment Report: Diebold AccuVote-TS Voting System and Processed" commission by the Governor of the State of Maryland. The report identified 328 security flaws, 26 of them "critical" and concluded that "[t]he system, as implemented in policy, procedure, and technology, is at high risk of compromise." A true and correct copy of the

SAIC report is included in the Appendix as Exhibit 5.

- The Nevada Study. In a report to the Nevada Secretary of State dated November 26, 2003, the Chief of the Nevada Gaming Control Board's Electronic Services Division concluded that "the Diebold electronic voting machine, operating on the software analyzed in the Johns Hopkins report and the SAIC Risk Assessment Report, represents a legitimate threat to the integrity of the election process" and recommended against its use in Nevada. A true and correct copy of the Nevada Study is included in the Appendix as Exhibit 6.
- 73. The Compuware/Ohio Study. On December 2, 2003, the Ohio Secretary of State released a "DRE Technical Security Assessment" prepared by a private firm, Compuware (the "Compuware Report"). The report assessed touchscreen voting systems sold by Diebold and three other vendors. It found the Diebold AV-TS voting system had more security risks rated "high" than any other vendor. It stated that the same PIN-1111-was used on all supervisor smart cards issued nationwide, and that an unauthorized person could use it to gain access to supervisor functions on the voting terminal. The report also found that an unauthorized person could use the widely available Microsoft Access database program to change ballot definition files and election results in the Diebold GEMS software. A true and correct copy of the Compuware Report is included in the Appendix as Exhibit 7.
- The RABA Technologies/Maryland Study. On January 20, 2004, the Maryland Department of Legislative Services released a report on Diebold product security entitled "Trusted Agent Report: Diebold AccuVote-TS Voting System," prepared by RABA Technologies LLC (the "RABA Report"). The RABA team, which included two prominent computer security professors and several former National Security Agency and Central Intelligence Agency computer security experts, identified numerous security vulnerabilities

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in the Diebold GEMS tabulation software and server and in the "smart" memory cards used with the AV-TS and -TSx systems. These security vulnerabilities were confirmed and demonstrated in a single day under election day conditions after a single week of analysis and preparation by this small team of computer security experts. A true and correct copy of the RABA Report is included in the Appendix as Exhibit 8.

### Computer Expert Harry Hursti's "Exploits" Demonstrate Vulnerabilities In The Diebold Voting System And Expose Diebold Misrepresentations. C.

- In May 2005, computer security expert Harri Hursti demonstrated the existence of several security vulnerabilities in the memory cards used in a Diebold system installed in Leon County, Florida. Diebold's systems use memory cards to customize ballots for a particular election and to store the voting results.
- Using an actual Diebold AV-OS machine, Hursti performed several "exploits" that allowed him to control vote totals and other aspects of voting machine performance, without being detected in a later canvass, by manipulating the code on the Diebold memory cards. Hursti documented these exploits in a report dated July 4, 2005. A true and correct copy of Hursti's report is included in the Appendix as Exhibit 9.
- Hursti's successful manipulation of the AV-OS was made possible by flaws in the AccuBasic code that runs both the AV-OS and AV-TSx systems. As described below, a later study by the California Secretary of State's own experts revealed that Hursti's manipulation would work on the AV-TSx and that there were many other vulnerabilities in the AccuBasic code.
- 78. As recently as August 23, 2005, Diebold denied the existence of the security vulnerability discovered by Hursti. In an August 23, 2005, letter to Janice Brewer, Arizona Secretary of State, Diebold insisted that the AV-OS "does not make use of a machineexecutable program stored, and implements no ability to execute any programs from a memory card." A true and correct copy of the August 23, 2005 letter is included in the Appendix as Exhibit 10. In fact, as described below, a later study by the California

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Secretary of State's own experts confirmed that the memory cards of both the AV-OS and AV-TSx could be used to "seize control of the machine" and "replace the running code on the machine . . . with code of the attacker's choosing."

#### III. DIEBOLD'S RENEWED EFFORTS TO ACHIEVE CERTIFICATION OF ITS VOTING SYSTEM.

- On March 18, 2005, Diebold applied for re-certification of a voting system that included a reconfigured version of the AV-TSx.
- Steve Freeman, the Secretary of State's technical consultant, recommended denial of certification on May 15, 2005.
- Diebold later presented a different version of the AV-TSx, using firmware version 4.6.3, for state certification.
- Wyle Laboratories—one of three vendor-sponsored laboratories which has been certified to test voting systems by the National Association of State Election Directors ("NASED")—recommended the AV-TSx with firmware version 4.6.3 for federal "qualification" at some point before June 27, 2005.
- 83. On June 27, 2005, NASED deemed the AV-TSx with firmware version 4.6.3 "qualified" and assigned it system number N-1-06-22-22-001.
- Despite the federal qualification, testing by the Secretary of State's office revealed serious problems with firmware version 4.6.3. For example, as described in an October 11, 2005 report by the Secretary of State's office, printer jams destroyed several voting records. The system software was also defective, resulting in numerous shutdowns and the potential for loss or corruption of voting records. A true and correct copy of the October 11, 2005 report is included in the Appendix as Exhibit 11.
- After examining AV-TSx with firmware version 4.6.3, the Secretary of State's own panel concluded that "any system with failure rates this high is not ready for use in an election." Ex. 11 at 5.
  - 86. After discovering these problems in the NASED- and ITA-qualified system, the

Secretary of State suspended Diebold's application.

87. Diebold later presented firmware version 4.6.4 for state certification.

### A. Security Concerns Are Raised At The Public Hearing On Diebold Certification.

- 88. The Secretary of State held a public hearing on the AV-TSx, with firmware version 4.6.4, on November 21, 2005. A true and correct copy of the transcript of the hearing ("Nov. 21 Hearing Transcript") is included in the Appendix as Exhibit 12.
- 89. Several speakers at the hearing informed the Secretary of State that the AV-TSx contained "executable code." *See, e.g.*, Ex. 12 at 33:10-13, 35:23-36:5, 42:1-17.
- 90. When asked whether the system contained executable code, the Secretary of State's technical consultant, Steve Freeman, responded: "I'm advised I shouldn't answer that." *Id.* at 42:14-17.
- 91. In. fact, Freeman had already acknowledged that the AV-TSx contained executable code in a November 11, 2005, report. *See* Secretary of State's November 11, 2005, consultant's report ("Freeman Report") at 7 ("[The AccuBasic report files] are actually loaded into the memory cards for the AV-OS and AV-TS where their logic is executed."). A true and correct copy of the Freeman report is included in the Appendix as Exhibit 13.

# B. After Another Successful "Hack" By Hursti, The California Secretary Of State Finds That Additional Testing Of The Diebold Voting System Is Needed As A Prerequisite To Certification.

- 92. On December 13, 2005, security expert Harri Hursti repeated his May 2005 "hack" showing that the presence of interpreted code in the Diebold voting system's memory cards made it easy to manipulate election results. Hursti had been invited by the Supervisor of Elections for Leon County, Florida, to test an AV-OS system under simulated election conditions.
  - 93. By using an off-the-shelf memory card, Hursti was able to manipulate the voting