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Quality Assurance Services®

April 19, 2004

John Mott-Smith
Chief, Elections Division
Office of the Secretary of State
1500 11th Street, Elections
Sacramento CA 95814

Dear Mr. Mott-Smith:

R&G Associates LLC is pleased to present the attached revised Phase II – County Voting System Review for forty-one counties.

If you have any questions regarding the content of this report please do not hesitate to contact Jocelyn Whitney or myself at your earliest convenience.

Once again, it has been a privilege to provide assistance to the Secretary of State in this important engagement.

Sincerely,

R&G Associates LLC
Kent Gould
Partner

Cc: JBW, File

SECRETARY OF STATE

KEVIN SHELLEY

STATE OF CALIFORNIA

Phase II
County Voting System Review

Prepared by:

R&G Associates, LLC

April 19, 2004

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SECRETARY OF STATE

Phase II
County Voting System Review

INTRODUCTION

R&G Associates (R&G) was engaged to complete a review of voting system components in forty-one counties, including selected hardware, firmware, and/or software. The reviews were conducted between January 22 and April 8, 2004.

The review consisted of a visual inspection and documentation of a statistically valid sample of each of the components comprising the voting system in place at each of the counties on the date of the review. Voting system elements documented in each of the reviewed counties included:

1. System name and version for the election management software in each county.

2. Hardware serial numbers and firmware versions for 100% of central count optical scan units in the counties using those units.

3. Hardware serial numbers and model numbers for 100% of ballot/card readers in the counties using those units.

4. Hardware serial numbers and firmware versions for a statistically valid sample of precinct count optical scan units in the counties using those units.

5. Hardware serial numbers and firmware versions for a statistically valid sample of DRE units in the counties using those units.

METHODOLOGY

In preparation for the review, the R&G consultant team completed the following activities:

- Met with Secretary of State (SOS) management and staff regarding various voting systems and the counties using each of the voting systems

- Requested and received an in-depth briefing with Election Systems & Software (ES&S) staff to review the operation of their voting system components in place in the counties

- Requested and received an in-depth briefing with Sequoia staff to review the operation of their voting system components in place in the counties

- Requested and received a briefing via telephone with DFM Associates staff to review the operation of their voting system components in place in the counties

- Requested, through SOS, that each county complete and provide a "County Voting System Information" form providing specific component information. Thirty of the 41 counties completed and returned the form to the Secretary of State's Election's office (Attachment A)

- Modified a previously developed "County On-site Review Questionnaire" to be used as a tool in the field to assure the reviews were consistent in and between each county. The questionnaire was designed to serve both as an interview guide and a format to document the information for the individual voting system components examined (Attachment B)

- Based on the information provided by the vendors and the counties, the team calculated a statistically valid sample for review of voting system components in each county that would provide a 95% confidence and reliability factor (Attachment C)

On-site appointments were made for each of the counties. In most cases, one day was allotted for the travel and review at each county. In some instances, two counties were completed within one day.

The on-site county review consisted of the following:

- An interview with the county registrar or the registrar's designated representative regarding voting system components used in the County:
  - ► Equipment and firmware version(s) currently in use
  - ► Election Management Software and firmware initial versions and upgrades
  - ► Location of equipment
  - ► Type and number of units
  - ► First election used
  - ► Usage in October and November 2003 elections
  - ► Expected or actual usage in March 2004 primary election
  - ► Voting system manuals used
  - ► Equipment records maintained
  - ► Security policies and/or practices

- A review of the Election Management Software
  - ► Location
  - ► View the installed version by booting up the system application

- A review of the central count ballot/card readers (when used by the County)
  - ► Location
  - ► Equipment type and manufacturer
  - ► Total number of units
  - ► Serial number and county inventory or other unique identifier, if available

- A review of the central count optical scan units (when used by the County)

- ► Location
- ► Equipment type and manufacturer
- ► Total number of units
- ► Serial number and county inventory or other unique identifier, if available

- A review of the precinct count optical scan units (when used by the County)
  - ► Location
  - ► Equipment name
  - ► Total number of units
  - ► Serial number and county inventory or other unique identifier, if available
  - ► Firmware version (if applicable)

- A review of the DRE units (when used by the County)
  - ► Location
  - ► Equipment name
  - ► Total number of units
  - ► Serial number and county inventory or other unique identifier, if available
  - ► Firmware version (if applicable)

The election management software, ballot/card readers (when used), and central count optical scan units (when used) were all reviewed for each county. The precinct count units were reviewed based on a statistically valid sample of the units. When the sample size was greater than 50% of the total number of units, the standard convention was to review all units. With the exception of one county, one or more county personnel accompanied the consultant during the review.

Following the reviews, the team summarized and compiled the data for each county. The results of the review and sampling are summarized in this report.

VENDOR SUMMARIES

Following is a summary of the information collected for each of the counties reviewed, organized by vendor. Included in each vendor section is a summary of voting system components for each county. Included in each summary is the (a) information on the individuals interviewed, office locations, voting system components used by the county, locations of the components, review sample and results, and (b) findings specific to the county and conclusions reached based on the information provided.

DATA INFORMATION MANAGEMENT SYSTEMS

The review included three counties using Data Information Management Systems (DIMS) voting system components:

- ► El Dorado County
- ► Monterey County
- ► Yolo County

Table 1, titled "Data Information Management Systems (DIMS) Components", summarizes the election management software, equipment and firmware installed in each of the counties on the date of the review.

Data Information Management Systems (DIMS) Components

County	Equipment and Version
El Dorado	DIMS Advanced Ballot Count Program version 1.3.3.4 LRC, Inc. Documation ballot/card readers LRC, Inc. ballot/card readers Documation ballot/card reader
Monterey	DIMS Advanced Ballot Count Program version 1.2.1.0 LRC Documation M1000L ballot/card readers
Yolo	DIMS Advanced Ballot Count Program version 4.0.3.1 Documation M1000L ballot/card readers

Table 1

Following is a summary of the information collected for each of the counties using the DIMS voting systems.

El Dorado County

Background

The consultant met with Mr. William Schultz, County Recorder-Clerk, and Mr. Joseph Zitzelberger, Systems Coordinator, at the County offices located at 2950 Fairlane Court, Placerville, California on February 19, 2004.

The County representatives stated that DIMS 1.3.3.4 is installed as the County's election management software and that the voting system also includes five LRC, Inc. and Documation ballot/card readers. The County representatives indicated that DIMS 1.3.3.4 and ballot/card readers were used in the October and November 2003 elections and would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Voting System Components Reported and Reviewed in El Dorado County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DIMS Advanced Ballot Count Program version 1.3.3.4	1	1
Ballot/Card Readers	LRC, Inc. Documation	2	2
	LRC, Inc.	2	2
	Documation	1	1

Table 2

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed DIMS Advanced Ballot Count Program 1.3.3.4 as its election management software
- The Advanced Ballot Count Program 1.3.3.4 is installed on one computer
- The consulatnt examined all five Ballot/Card readers. One is used as a back up
- The Advanced Ballot Count Program 1.3.3.4 election management software was originally purchased by the County in 1984 and the election management software has been upgraded

since that time

- The County secures the election management software and the ballot/card readers in the Recorder-Clerks office. Access is controlled by the location and password

- The County uses procedures and documentation provided by DIMS, Inc. for operating Advanced Ballot Count Program 1.3.3.4 and the ballot/card readers. The procedures where discussed with the County representative however they were not examined

Monterey County

Background

The consultant met with Mr. Peter Wendt, Information Systems Coordinator, at the County offices located at 1370 "B" S. Main Street, Salinas, California on January 29, 2004.

The County representative stated that the DIMS Advanced Ballot Count Program version 1.2.1.0 is installed as the County's election management software. The DIMS Advanced Ballot Count Program version 1.2.1.0 is used with four Documation ballot/card readers. The County maintains two additional ballot/card readers as back up. This system was used for the October and November 2003 election and will be used for the March 2004 election.

Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Voting System Components Reported and Reviewed in Monterey County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DIMS Advanced Ballot Count Program version 1.2.1.0	1	1
Ballot/Card Readers	LRC Documation M1000L	6	6

Table 3

Findings and Conclusion(s)

During the review the consultant found the following:

- DIMS Advanced Ballot Count Program version 1.2.1.0 is installed as the County's election management software

- All six LRC M1000L Ballot/Card Readers were examined

- The County uses pre-scored ballots for absentee voting

- The County representative indicated that sufficient procedures and documentation exists to provide for the operation of the system. The procedures and documentation were either provided by the vendor or have been developed by County personnel. The procedures where discussed with the County representative however only those portions developed by the County were examined

- The County prepares and maintains voting system reference materials for poll worker training

- The County provides controlled access to a double locked, alarmed computer room for the voting system equipment, election management software and ballots

Yolo County

Background

The consultant met with Mr. Tom Stanionis, Data Processing Coordinator, and Ms. Lori Meirowsky, Data Services, at the County offices located at 625 Court Street, Woodland, California on January 24, 2004.

The County representatives stated that the DIMS Advanced Ballot Count Program version 4.0.3.1 is installed as the County's election management software and operates with four Documation M1000L ballot/card readers. This system has been in place for over ten years and was used for the October and November 2003 elections and the County intends to use this system for the March 2004 election. An election management software upgrade was installed prior to the October 2003 election to accommodate printing the ballot on one page.

Based on information provided by the County representatives, it was determined the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Voting System Components Reported and Reviewed in Yolo County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DIMS Advanced Ballot Count Program 4.0.3.1	1	3
Ballot/Card Readers	Documation M1000L	4	4

Table 4

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed the DIMS Advanced Ballot Count Program version 4.0.3.1 as the County's election management software
- The County maintains the DIMS Advanced Ballot Count Program version 4.0.3.1 on one server and two back up computers
- The four Documation M1000L ballot/card readers were examined
- The County uses pre-scored ballots for absentee voting
- The County representative indicated that limited documentation is available from the vendor on the voting system and that County personnel developed additional information. The procedures where examined by the consultant and discussed with the County representative
- The voting system equipment is maintained and upgrades are installed by County personnel. The vendor is available to answer questions as necessary
- The County maintains "Poll Workers Training" and "Inspector Guide" handouts
- The equipment is secured in the Registrar of Voters main office

DFM ASSOCIATES

The review included nine counties using DFM Associates (DFM) voting system components:

- ► Butte County
- ► Contra Costa County
- ► Lake County
- ► Madera County
- ► Sacramento County
- ► Santa Cruz County
- ► Sonoma County
- ► Sutter County
- ► Ventura County

Table 5 titled "DFM Associates Components," summarizes the election management software, equipment and firmware installed in each of the counties on the date of the review.

DFM Associates Components

County	Equipment and Version
Butte	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Mark-A-Vote TRM1000L Ballot/Card Reader Mark-A-Vote MP1000 Ballot/Card Reader
Contra Costa	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Mark-A-Vote MP1000 Ballot/Card Readers Mark-A-Vote TRM1000L Ballot/Card Readers
Lake	DFM Associates BCWin™ • ELN Count 1.00.0101 Documation Model TRM1000L Ballot/Card Readers
Madera	DFM Associates BCWin™ • ELNCount 1.00.0100 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Data Control Engineering Ballot/Card Readers

Table 5

County	Equipment and Version
Sacramento	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELN Utl 1.00.0000 Data Control Engineering MP1000 Ballot/Card Reader
Santa Cruz	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 TRM1000L Ballot/Card Readers
Sonoma	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Mark-A-Vote Documation MP1000 Ballot/Card Readers TRM1000L Ballot/Card Readers
Sutter	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Mark-A-Vote Documation Ballot/Card Readers Data Control Engineering Ballot/Card Reader
Ventura	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000 Documation M1000L Ballot/Card Readers Documation M600L Ballot/Card Reader Benton Company BC1000 Ballot/Card Readers Documation TRM1000L Ballot/Card Readers

Table 5 *(Continued)*

Following is a summary of the review information collected for each of the counties using the DFM Associates voting systems.

Butte County

Background

The consultant met with Ms. Candace Grubbs, Registrar of Voters, and Ms. Laurie Cassidy, Assistant Registrar of Voters, at the County offices located at 25 County Center, Oroville, California on January 22, 2004.

The County representatives stated that they currently use DFM Associates BCWin™ as the Count's election management software and five Mark-A-Vote ballot/card readers. This system was used in the October 2003 election and the County intended to use the system for the March 2004 election. The County did not conduct an election in November 2003.

The election management software and ballot/card readers were located at the Registrar of Voter's main office. Based on information provided by the County representatives, it was determined the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Butte County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	4
Ballot/Card Readers	Mark-A-Vote TRM1000L Mark-A-Vote MP1000	1 4	1 4

Table 6

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the DFM Associates BCWin™ election management software
- BCWin™ was originally installed in March 1998
- BCWin™ is installed on two computers and two servers
- The County currently uses five Mark-A-Vote ballot/card readers
- The County keeps detailed logs on election management software and equipment

documenting upgrades, repairs, testing, etc. occurring on each machine

- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives

- The County has developed and provides other comprehensive procedures including the "Central Counting Center Mark-A-Vote Voting System Reference Guide", the "Precinct Officer Handbook", and the "Chief Inspector Procedures"

- The County provides a separate secured room for the voting system equipment. Access to the system is controlled by locks and passwords

Contra Costa County

Background

The consultant met with Ms. Candy Lopez, Assistant County Registrar, Ms. Katherine Sasek, Data Processing Manager, and Mr. David Lew, Computer Operator II, at the County offices located at 524 Main Street, Martinez, California on January 28, 2004.

The County representatives informed the consultant that the County uses the BCWin™ election management software and 20 ballot/card readers. This system was used for the November 2003 election and the County intended to use this system for the March 2004 election.

The County contracted with ES&S to conduct the October 2003 election. A review of the County contract with ES&S for those services did not provide specific information regarding the election management software or optical scan equipment and firmware that were used. Subsequent to this review, Ms. Candy Lopez contacted ES&S who reported that Optical Scan Model 550 version 2.0.1.0 and Election Reporting Manager version 6.3.2.11 were used to conduct the October 2003 election in Contra Costa County.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Contra Costa County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	8
Ballot/Card Readers	Mark-A-Vote MP1000 Mark-A-Vote TRM1000L	18 2	18 2

Table 7

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses DFM Associates BCWin™ as the election management software
- BCWin™ is installed on 5 desktop computers and 3 servers
- The 20 central count ballot/card readers were examined
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County has developed and provides other comprehensive procedures including "Poll Workers Manual" and "Inspector's Instructions and Check List" as well as other voting system reference materials. In addition, the County has developed comprehensive classroom curricula for training poll workers and inspectors
- The County provides for highly controlled access to locked rooms with separate alarm systems for the voting system equipment
- The County contracted with ES&S to conduct the October 2003 election using Optical Scan Model 550 version 2.0.1.0 and Election Reporting Manager version 6.3.2.11

Lake County

Background

The consultant met with Ms. Diane Fridley, Registrar of Voters, at the County offices located at 255 N. Forbes Street, Lakeport, California on January 29, 2004.

The County representative stated that DFM Associates BCWin™ is installed as the County's election management software and that the voting system also includes two Documation, Inc. ballot/card readers. The County representative indicated that DFM BCWin™ and ballot/card readers were used in the October and November 2003 elections and would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Lake County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELN Count 1.00.0101	1	1
Ballot/Card Readers	Documation, Inc. Model TRM1000L	2	2

Table 8

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed DFM BCWin™ as its election management software
- The DFM BCWin™ is installed on one computer
- The County has two Documation TRM1000L ballot/card readers
- The DFM BCWin™ was originally purchased by the County in 1998, and the election management software has not been upgraded since that time
- The County secures the election management software and the ballot/card readers in the Registrar of Voters computer room. Access is controlled by the location and a locked door

- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives

Madera County

Background

The consultant met with Ms. Rebecca Martinez, Clerk-Recorder, and Ms. Stephanie Sibley, Assistant Clerk-Elections, at the County offices located at 209 W. Yosemite Avenue, Madera, California on February 18, 2004.

The County representatives stated that DFM Associates BCWin™ is installed as the County's election management software and that the voting system also includes two Data Control Engineering ballot/card readers. The County representatives indicated this system was used in the October and November 2003 elections and would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Madera County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0100 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	4
Ballot/Card Readers	Data Control Engineering	2	2

Table 9

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed DFM Associates BCWin™ as its election management software
- BCWin™ is installed on three computers and one is used as a back up
- The County has two ballot/card readers
- The BCWin™ was originally purchased by the County in 1990 and the election management software has been upgraded since that time
- The County secures the election management software and the ballot/card readers in the Clerk-Recorders computer room. Access is controlled by the location
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives

Sacramento County

Background

The consultant met with Ms. Jill LaVine, Registrar of Voters, Ms. Roberta Kanelos, IT Tech Supervisor, and Mr. Wayne Cantrell, IT Tech II, at the County offices located at 7500 65th Street, Sacramento, California on March 12, 2004.

The County representatives stated that DFM Associates BCWin™ is installed as the County's election management software and that the voting system also includes eight Data Control Engineering Model MP1000 ballot/card readers. The County representatives indicated that BCWin™ and ballot/card readers were used in the October 2003, November 2003, and March 2004 elections.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Sacramento County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	4
Ballot/Card Readers	Data Control Engineering Model MP1000	8	8

Table 10

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed BCWin™ as its election management software
- The BCWin™ is installed on two computers and two servers
- The County has eight ballot/card readers
- The BCWin™ was originally purchased by the County in the 1980's and the election management software has been upgraded since that time
- The County secures the election management software and the ballot/card readers in the Registrar of Voters computer room. Access is controlled by the location and password codes
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives

Santa Cruz County

Background

The consultant met with Ms. Gail Pellerin, Elections Manager, and Mr. Martin Peaden, Information Systems Analyst, at the County offices located at 701 Ocean Street, Room 210, Santa Cruz, California on January 28, 2004.

The County representative informed the consultant that the County uses the DFM Associates BCWin™ election management software and four ballot/card readers. This system was used in the October 2003 election and would be used in the March 2004 election. The November 2003 election included a very small number of ballots and was accomplished by hand count.

Based on information provided by the County representatives, it was determined that the number of components was too small for sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Santa Cruz County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	2
Ballot/Card Readers	TRM1000L	4	4

Table 11

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses DFM Associates BCWin™ as the election management software
- The BCWin™ is installed on one computer and one server
- All four central count optical scan units were examined
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County has developed and provides other comprehensive procedures including "Special Circumstances at the Polls", "Voters with Specific Needs", "Election's Officer Manual" and a direct telephone line is used for an "Inspector's Hotline"
- The County provides for highly controlled access to a separate locked computer room for the voting system equipment, election management software, and ballots. The room uses a "Kee Blok" lock with one key that is carried only by the Registrar of Voters or the Elections Manager

Sonoma County

Background

The consultant met with Ms. Janice Atkinson, Assistant Registrar of Voters and Mr. Steve Hillman, Elections Services Supervisor, at County offices located at 435 Fiscal Drive, Sonoma,

California on January 27, 2004.

The County representatives informed the consultant that the County uses the DFM Associates BCWin™ election management software and nine ballot/card readers. This system was used in the October and November 2003 elections and would be used in the March 2004 election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Sonoma County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	6
Ballot/Card Readers	Mark-A-Vote Documation MP1000 TRM1000L	3 6	3 6

Table 12

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses DFM Associates BCWin™ as the election management software
- BCWin™ is installed on three desktop computers and three servers
- All nine central count ballot/card readers were examined
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County has developed and provides other comprehensive procedures including a "Poll Workers Manual" and an "Inspector's Instructions and Check List"
- The County provides for highly controlled access to separate locked rooms for the voting system equipment, election management software, and ballots

Sutter County

Background

The consultant met with Ms. Joan Bechtel, Registrar of Voters, and Ms. Linda Winter, Assistant Registrar of Voters, at the County offices located at 463 2nd Street, Yuba City, California on January 28, 2004.

The County representatives informed the consultant that the County uses the DFM Associates BCWin™ election management software and four ballot/card readers. This system was used in the October 2003 election and was expected to be used in the March 2004 election. The County did not have a November 2003 election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Sutter County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	1
Ballot/Card Readers	Mark-A-Vote Documation Data Control Engineering	3 1	3 1

Table 13

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses DFM Associates BCWin™ as the election management software
- BCWin™ is installed on one central server
- All four central count optical scan units were examined
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County secures the voting system equipment, election management software and ballots in the Registrar of Voters main office. Security is provided by the location and passwords

Ventura County

Background

The consultant met with Mr. Bruce Bradley, Assistant Registrar of Voters, and Gene Browning, Program Administrator, at the County offices located at 800 S. Victoria Avenue, Ventura, California on April 8, 2004.

The County representative informed the consultant that the County uses the DFM Associates BCWin™ election management software and 14 fourteen ballot/card readers. This system was used in the October and November 2003 elections and in the March 2004 election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Ventura County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	5
Ballot/Card Readers	Documation M1000L Documation M600L Benton Company BC1000 Documation TRM1000L	7 1 2 4	7 1 2 4

Table 14

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses DFM Associates BCWin™ as the election management software
- BCWin™ is installed on three desktop computers and two servers. One server is used solely as a backup
- All 14 central count ballot/card readers were examined
- The County uses SOS certified Mark-A-Vote procedures for testing and using voting system equipment. The procedures were examined by the consultant and portions of the

procedures were discussed with the County Representatives

- The County provides for controlled code access to a separate locked room for the voting system equipment and election management software.

DIEBOLD

The review included four counties using Diebold voting system components:

- ► Kern County
- ► San Diego County
- ► San Joaquin County
- ► Solano County

Table 15, titled "Diebold Components", summarizes the election management software, equipment and firmware installed in each of the counties on the date of the review.

Diebold Components

County	Equipment and Version
Kern	GEMS Version 1.18.18.0 AccuVote Optical Scan version 2.0.10 AccuVote TSx DRE version 4.4.3.27 & 4.4.3.4
San Diego	GEMS Version 1.18.18.0 AccuVote 2000 Optical Scan version 2.0.10 AccuVote TSx R7 DRE version 4.4.3.27Cal & 4.4.3.27
San Joaquin	GEMS Version 1.18.18 AccuVote Optical Scan version 2.0.11 AccuVote Optical Scan version 1.94w AccuVote DRE version 4.4.3.27 & 4.4.3.26
Solano	GEMS Version 1.18.18.0 AccuVote Optical Scan version 2.0.10 AccuVote TSx DRE version 4.4.4.1 & 4.4.3.27

Table 15

Following is a summary of the review information collected for each of the counties using the Diebold voting systems.

Kern County

Background

The consultant met with Ms. Sandra Brockman, Chief Deputy Registrar, and Mr. Scott Valline, Information Systems Specialist, at the County Registrar's office located at 1115 Truxtun Avenue, Bakersfield, California on April 1, 2004.

The County representatives stated that the County uses Diebold GEMS version 1.18.18.0 for election management software. The representatives indicated that the County purchased GEMS version 1.18.18.0 in September 2003 and that version was used for the October and November 2003 elections and the March 2004 election.

The election management software, six optical scan units, and 1,350 DRE units were housed in the Registrar's office. The six optical scan units were first used in the October 2003 election. The DRE units were first used in the March 2004 election.

Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Kern County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Diebold GEMS version 1.18.18.0	1	1
Central Count: Optical Scan	AccuVote version 2.0.10	6	6
DRE Units	AccuVote TSx version 4.4.3.27 AccuVote TSx version 4.4.3.4	1,350	107 1

Table 16

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Diebold GEMS version 1.18.18.0 as its election management software
- The six central count optical scan units were Diebold AccuVote using version 2.0.10
- The DRE units sampled were Diebold TSx using version 4.4.3.27 except for one unit that had version 4.4.3.4. The County representative stated that the DRE unit with version 4.4.3.4 was not used in the March 2004 election
- Based on our review of the sample of 108 of 1,350 AccuVote DRE units, we are 95% confident that no more than 5.3% and perhaps as few as 0.1% of the units are Diebold

AccuVote DRE's using firmware other than 4.4.3.27

- The County uses Secretary of State certified Diebold procedures for the Diebold voting system components used in their system. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives

- The County has developed and provides other comprehensive procedures including "R6 Receipt and Acceptance", "Election Site Listing for Consolidated Primary Election", "Touch Screen Staging for an Election", and "R7 Quality Control Reports" as well as other voting system reference materials

- The County utilizes a sophisticated electronic inventory tracking system that documents the location of each piece of voting system equipment (storage and deployment to a polling places)

- The County provides for controlled access to a locked room that houses software and equipment. In addition, the County has a sophisticated storage system for the DRE's consisting of floor to ceiling shelving units which are rolled together and locked

San Diego County

Background

The consultant met with Tim McNamara, Assistant Registrar of Voters and Charlie Wallis, Departmental IT Coordinator at the County Registrar's office located at 5201 Ruffin Road, San Diego, California on April 6, 2004.

The County representatives stated that the County uses Diebold GEMS version 1.18.18.0 for election management software. The representatives indicated that the County purchased GEMS version 1.18.18.0 on February 19, 2004 and that version was used for the March 2004 election.

The County had 12 Diebold AccuVote optical scan units on loan from Diebold and used 6 of the units in the March 2004 election. The County also received 10,203 Diebold DRE units in February 2004, which were used in the March 2004 election.

The County did not have a November 2003 election. The County used the Data Information Management System Advanced Ballot Count election management software version number 4.0.2.2 along with 12 Documation Inc. ballot/card readers for the October 2003 election.

Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in San Diego County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Diebold GEMS version 1.18.18.0	1	1
Central Count: Optical Scan	AccuVote 2000 version 2.0.10	12	12
DRE Units	AccuVote TSx R7 version 4.4.3.27Cal version 4.4.3.27	10,203	 112 1

Table 17

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Diebold GEMS Version 1.18.18.0 as its election management software
- The 12 central count optical scan units were examined and all were found to be Diebold AccuVote 2000 version 2.0.10
- 113 DRE units were sampled. 112 units were Diebold TSx R7 version 4.4.3.27Cal and one unit was Diebold TSx R7 version 4.4.3.27. The County representative stated that election officials were aware of the discrepancy and were working with the vendor to correct
- Based on our review of the sample of 113 of the 10,203 AccuVote DRE units, we are 95% confident that no more than 5.1% and perhaps as few as 0.1% of the units are Diebold AccuVote DRE's using firmware other than 4.4.3.27Cal.
- The County uses Secretary of State certified Diebold procedures for the Diebold voting system components used in their system. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County utilizes a sophisticated electronic inventory tracking system that documents the location of each piece of voting system equipment including storage location and precinct deployment location and precinct group
- The County provides for controlled access to election management software and optical scan equipment in locked rooms. In addition, the County secures the DRE units on carts in a locked and caged section of a warehouse

San Joaquin County

Background

The consultant met with Mr. Bill Barnes, Project Manager, at the County warehouse located at 6700 CE Dixon, Stockton, California and also with Ms. Deborah Hench, Registrar of Voters and Mr. Austin Erdmann, Assistant Registrar of Voters, at the County Registrar's Office, located at 212 North San Joaquin 2nd Floor, Stockton California, on January 30, 2004.

The County representatives stated that the County uses Diebold GEMS Version 1.18.18 for election management software. The representatives indicated that the County purchased GEMS Version 1.17.17 in July 2003 and that version was used for the October and November 2003 election. The election management software has since been upgraded to GEMS Version 1.18.18.. The County intends to use Diebold DRE units, firmware, and election management software in the March 2004 election.

The election management software, optical scan units and 10 DRE units were housed in the Registrar's main office. The remaining 1615 DRE units were housed at the County warehouse.

Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in San Joaquin County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Diebold GEMS version 1.18.18	1	1
Central Count: Optical Scan	AccuVote 2000 version 2.0.11	3	3
Precinct Count: Optical Scan	AccuVote 2000 version 1.94w	3	3
DRE Units	AccuVote TSx Firmware version 4.4.3.27 Firmware version 4.4.3.26	1,625	 106 1

Table 18

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Diebold GEMS version 1.18.18 as its election management software

- 3 central count optical scan units were examined and found to be AccuVote version 2.0.11
- The 3 precinct count optical scan units were examined and found to be Diebold AccuVote version 1.94w
- 107 DRE units were sampled and 106 units were forund to be Diebold TSx version 4.4.3.27 ; one unit was found to be Diebold TSx version 4.4.3.26
- Based on our review of the sample of 107 of the 1,625 AccuVote DRE units, we are 95% confident that no more than 5.3% and perhaps as few as 0.1% of the units are Diebold AccuVote DRE's using firmware other than 4.4.3.27
- The County uses Secretary of State certified Diebold procedures for the Diebold voting system components used in their system. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County has developed and provides other comprehensive procedures including "Poll Workers Manual" and "Inspector's Instructions and Check List" as well as other voting system reference materials
- The County utilizes a sophisticated electronic inventory tracking system that documents the history of each piece of voting system equipment (maintenance, repairs, testing, upgrades, deployment to a polling place, etc.)
- The County provides for highly controlled access to locked rooms with monitored camera surveillance for the voting system equipment, election management software, and ballots

Solano County

Background

The consultant met with Ms. Laura Winslow, Registrar of Voters, and Mr. Steven Jacobs, Senior Systems Analyst, at the County offices located at 510 Clay Street, Fairfield, California on January 22, 2004.

County representatives stated that the County uses Diebold GEMS version 1.18.18.0 as its election management software. The representatives indicated that the County purchased GEMS in November 2003 and that it was not used for the October and November 2003 elections. The County used Data Information Management System (DIMS) Advanced Ballot Counting Program version 4.0.3.1 and four LRC modified Benton ballot/card readers for the October and November 2003 elections. The County intended to use the Diebold DRE units, firmware, and election management software in the March 2004 election.

The election management software, optical scan units and nine DRE units were housed in the Registrar's main office. The remaining 1,162 DRE units were housed at the County warehouse.

Based on information provided by the County representatives, the number of components required to represent a statistically valid sample size was determined. The following table identifies the

information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Solano County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Diebold GEMS version 1.18.18.0	1	1
Central Count: Optical Scan	AccuVote 2000 version 2.0.10	2	2
DRE Units	AccuVote TSx version 4.4.4.1 AccuVote TSx version 4.4.3.27	1,171	103 2

Table 19

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Diebold GEMS version 1.18.18.0 as its election management software
- Both central count optical scan units were examined and found to be Diebold AccuVote 2000 version 2.0.10
- 105 DRE units were sampled. 103 units were found to be Diebold AccuVote TSx version 4.4.4.1, 2 units were found to be Diebold AccuVote TSx 4.4.3.27
- Based on our review of the sample of 105 of the 1,171 AccuVote DRE units, we are 95% confident that no more than 6.8% and perhaps as few as 0.3% of the units are Diebold AccuVote DRE's using firmware other than 4.4.4.1
- The County uses Secretary of State certified Diebold voting system component procedures for using voting system equipment. The procedures were examined by the consultant and portions of the procedures were discussed with the County Representatives
- The County has developed and provides other comprehensive procedures covering testing, logging, tracking and security for software and equipment as well as other voting system reference materials
- The County used Data Information Management System Advanced Ballot Count election management software version 4.0.3.1 and four LRC modified Benton Company ballot/card readers for the October and November 2003 elections

ELECTION SYSTEMS & SOFTWARE

The review included eight counties using ES&S voting system components:

- ► Amador County
- ► Colusa County
- ► Merced County
- ► Nevada County
- ► San Francisco County
- ► San Mateo County
- ► Stanislaus County
- ► Tuolumne County

Table 20, titled "Election Systems & Software Components", summarizes the election management software, equipment and firmware installed in each of the counties on the date of the review.

Election Systems & Software Components

County	Equipment and Version
Amador	Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 Optech III P Eagle • HPS version 1.22 & 1.28 • APS version 1.36 & 1.50
Colusa	Unity version 2.0 Election Reporting Manager version 6.3.2.18 Model 550 version 2.0.1.0
Merced	Unity version 2.0 Election Reporting Manager version 6.3.2.6 Model 650 version 1.1.9.1 iVotronic version 7.4.5.0
Nevada	Unity version 2.0 Election Reporting Manager version 6.3.2.11 Model 550 version 2.0.1.0 Model 150 version 2.0.1.0
San Francisco	Unity version 2.0 Election Reporting Manager version 6.3.2.18 Optech IV-C version 1.07a Optech III P Eagle • HPS version 1.30 • APS version 1.52

San Mateo	Unity version 2.2 Election Reporting Manager version 6.3.2.9 Optech IV-C version 1.07a Optech II Eagle • HPS version 1.30 • APS versions 1.52 & 1.50
Stanislaus	Unity version 2.0 Election Reporting Manager version 6.3.2.11 Model 650 version 1.1.9.1
Tuolumne	Unity version 2.0 Election Reporting Manager version 6.3.2.11 Model 550 version 2.0.1.0

Table 20 *(continued)*

Following is a summary of the review information collected for each of the counties using the ES&S voting systems.

Amador County

Background

The consultant met with Mr. George Allen, Assistant Registrar of Voters, and Mr. Lou Dedier, ES&S representative, at County offices located at 500 Argonaut Lane, Jackson, California on March 25, 2004.

The County representative stated that ES&S Election Management System (EMS) version 3.53 and Automatic Election Returns (AERO) version 3.53 are installed as the County's election management software. The County uses the ES&S Optech III P Eagles in the precincts and the central office. The County originally leased the election management software in 1991. The software and optical scan units were used in the October 2003 and March 2004 elections. The November 2003 election was accomplished by hand count.

The election management software was housed in the County offices and the Optech III-P Eagles were located in a commercial storage facility. Based on information provided by the County representative, the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County and ES&S representatives and the required sample of the components.

Components Reported and Reviewed in Amador County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Election Management System version 3.53 ES&S Automatic Election Returns version 3.53	1	1
Central & Precinct Count: Optical Scan	ES&S Optech III P Eagle HPS version 1.22 ES&S Optech III P Eagle HPS version 1.28 APS version 1.36 APS version 1.50	21 8 72	21 8 68 2

Table 21

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Election Management System 3.53 and ES&S Automatic Election Returns version 3.53 on one computer as its election management software
- The consultant examined all 29 Optech III P Eagle optical scan units and found 21 contained HPS version 1.22 and eight contained HPS version 1.28
- The Optech III P Eagle memory packs are programmed by ES&S and inserted in the Eagles prior to the election. These memory packs were removed after the election and delivered to the central office for ballot counting. Subsequently they were sealed and placed in secure storage until needed or the next election. The consultant met with Mr. George Allen a second time on April 2, 2004 to examine the 72 memory packs and found that 68 were APS version 1.36, 2 were APS version 1.50, and two were not functioning
- The County tracks repairs and maintenance on individual cards for each piece of equipment
- The County uses documentation and procedures developed by ES&S to operate the Optech III P Eagles. The consultant examined the procedures for the Optech III P Eagles
- The County has developed and provides other comprehensive procedures including "Precinct Manual for Eagles" and "Checklist Eagle Ballot Count Machine Test"
- The election management software and equipment are secured in the Registrar of Voters offices and in a padlocked, commercial storage site that has 24 hour security

Colusa County

Background

The consultant met with Ms. Kathleen Moran, County Clerk and Recorder, and Mr. Lou Dedier, ES&S representative, at the County offices located at 546 Jay Street, Colusa, California on March 18, 2004.

The County representatives stated that ES&S Unity Election Reporting Manager version 6.3.2.18 is installed as the County's election management software. The County uses the ES&S Model 550 version 2.0.1.0 for central count optical scan. The County originally purchased the ES&S Unity version 2.0 Election Reporting Manager version 6.3.2.18 in September 2003. The election management software and optical scan units were used in the October 2003 election and in the March 2004 election. The County did not have a November 2003 election.

The election management software and optical scan units were housed in County offices. Based on information provided by the County representative, the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Colusa County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Unity version 2.0 Election Reporting Manager version 6.3.2.18	1	1
Central Count: Optical Scan	Model 550 version 2.0.1.0	1	1

Table 22

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity 2.0 Election Report Manager version 6.3.2.18 as its election management software
- The Unity 2.0 Election Report Manager version 6.3.2.18 is installed on a ES&S provided laptop computer
- The consultant reviewed the ES&S 550 optical scan unit and found it to be Model 550 version 2.0.1.0
- Under a contract with the County, ES&S staff operate the election management software

and the 550 optical scan unit during elections

- The County uses documentation and procedures developed by ES&S to operate the software and the optical scan unit. The consultant examined information received from ES&S representatives regarding the Model 550 optical scan units

Merced County

Background

The consultant met with Ms. Deanna Brown, Deputy Registrar of Voters, and Ms. Shawnesti Machado, Election Clerk, at the County offices located at 2222 M Street, Merced, California on February 4, 2004.

The County representatives stated that ES&S Unity version 2.0 Election Reporting Manager version 6.3.2.6 is installed as the County's election management software. The County uses ES&S iVotronic DRE version 7.4.5.0 in the precincts and the ES&S Model 650 version 1.1.9.1 for central count optical scan. The County originally purchased the ES&S Unity Election Reporting Manager in 1996. The initial use was the November 1996 election. The election management software was upgraded prior to its use in the October and November 2003 elections and will be used in the March 2004 election.

The election management software, optical scan units, and DRE units were housed in County offices. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Merced County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Unity version 2.0 Election Reporting Manager version 6.3.2.6	1	1
Central Count: Optical Scan	Model 650 version 1.1.9.1	2	2
DRE Units	iVotronic version 7.4.5.0 Supervisor units (early voting terminals) version 7.4.5.0	443 3	88 3

Table 23

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity version 2.0 Elections Reporting Manager 6.3.2.6 as its election management software
- The consultant examined 91 DRE units and all units were confirmed as version 7.4.5.0
- Based on our review of the sample of 91 of the 446 iVotronic DRE units, we are 95% confident that no more than 2.6% and perhaps as few as none of the units are ES&S iVotronic DRE's using firmware other than 7.4.5.0
- Three of the DRE units were supervisor units. All three were included in the consultant's sample
- The County contracts with ES&S staff to operate the software, the Model 650 optical scan units, and the iVotronic DRE's. The County assists ES&S in conducting the logic and accuracy testing prior to an election
- The County uses documentation and procedures developed by ES&S to operate the software and the optical scan unit. The consultant examined procedures and specifications received from ES&S representatives regarding the Model 650 optical scan units and the iVotronic voting system
- The County provides controlled access locked cabinets for the DREs

Nevada County

Background

The consultant met with Ms. Larraine Jewett-Burdick, Clerk-Recorder, and Ms. Joy Massey, Assistant Clerk-Recorder, at the County offices located at 10433 Willow Valley Road, Nevada City, California on February 10, 2004.

The County representatives stated that ES&S Unity 2.0 Election Reporting Manager version 6.3.2.11 is installed as the County's election management software. The County uses the ES&S Model 550 with firmware version 2.0.1.0 for central count optical scan. The County also uses an ES&S Model 150 version 2.0.1.0 optical scan unit in Truckee. The County originally purchased the software in 1994. The election management software and optical scan units were used in the October 2003 election and will be used in the March 2004 election. The County did not have a November 2003 election.

The election management software and optical scan units were housed in County offices. Based on information provided by the County representative, the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Nevada County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Unity 2.0 Election Reporting Manager version 6.3.2.11	1	2
Central Count: Optical Scan	ES&S Model 550 version 2.0.1.0	2	1
Precinct Count: Optical Scan	ES&S Model 150 version 2.0.1.0	1	1

Table 24

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity 2.0 Election Reporting Manager version 6.3.2.11 as its election management software
- The County has Unity 2.0 Election Report Manager version 6.3.2.11 installed on a central computer and on a laptop computer
- The consultant examined both ES&S 550 optical scan units and found that one had firmware Version 2.0.1.0. The second unit would not print and the ES&S representative stated that the printer chip needed to be replaced on the motherboard
- The consultant examined one ES&S 150 version 2.0.1.0 optical scan unit that is located in Truckee
- The County uses documentation and procedures developed by ES&S to operate the software and the optical scan units. The consultant examined procedures and specifications received from ES&S representatives regarding the Model 150 and Model 550 optical scan units as well as the "Procedures Required for Use of the AIS150/550 Voting Systems"

San Francisco County

Background

The consultant met with Mr. John Arntz, Director of Elections, and Andrea Devereaux, ES&S Representative, at County offices located in the City Hall, 1 Dr. Carlton B. Goodlett Place, San Francisco, California on March 10, 2004.

The County representative stated that ES&S Unity 2.0 Election Reporting Manager version 6.3.2.18 is installed as the County's election management software. The County uses the ES&S Optech IV-C version 1.07a for central count optical scan. The County also uses the ES&S Optech III P Eagle in the precincts. The County originally purchased the ES&S software in 1999. The election management software and optical scan units were used in the October 2003, November 2003 and March 2004 elections.

The election management software and central optical scan units were housed in County offices. The Optech III P Eagles were located in a private warehouse. Based on information provided by the County and ES&S representatives, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County and ES&S representatives and the required sample of the components.

Components Reported and Reviewed in San Francisco County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Unity 2.0 Election Reporting Manager version 6.3.2.18	1	15
Central Count: Optical Scan	ES&S Optech IV-C version 1.07a	2	2
Precinct Count: Optical Scan	ES&S Optech III P Eagle • HPS version 1.30 • APS version 1.52	 684 684	 106 107

Table 25

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity 2.0 Election Reporting Manager version 6.3.2.18 as its election management software

- The County has the election management software installed on seven central computers and on eight laptop computers. Each of the central computers has a different use and also provides backup. The laptop computers (using telephone lines) were used in remote precincts to ensure timeliness of data transmission on election nights

- The ES&S representatives were the primary operators of the election management software, computers, and central count optical scan units. County IT staff operated the laptops at remote sites on election night and they operated the computers receiving the transmissions from the remote site laptops

- The consultant reviewed both ES&S Optech IV-C optical scan units and found that both had firmware version 1.07a

- The consultant examined 106 Optech III P Eagle optical scan units and found they all contained HPS version 1.30. The County had shrink-wrapped 578 of the units on pallets prior to the consultant's arrival. Therefore, with approval from the SOS's Chief of Elections, the consultant examined all 106 of the remaining optical scan units

- Based on our review of the sample of 106 of the 680 Optech III P Eagles optical scan units, we are 95% confident that no more than 2.6% and perhaps as few as none of the units are ES&S Optech Eagles using HPS firmware other than 1.30

- The firmware for the Optech III P Eagle is provided by memory packs that were programmed by ES&S and inserted into the Eagles prior to an election. These memory packs were removed after the election and delivered to the central office for ballot counting. Subsequently they were sealed and placed in secure storage until needed or the next election. Due to recent election, the SOS's Chief of Elections directed us not to sample the firmware in the memory packs during our initial review. A consultant returned to the County on April 6, 2004 and met with Ms. Vicki Wiggins, ES&S Project Manager, to examine a sample of 107 of the 684 memory packs and found that all the packs examined contained firmware version 1.52, except for one that produced an error.

- Based on our review of the sample of 107 of the 680 Optech III P Eagle optical scan unit – memory packs, we are 95% confident that no more than 5.0% and perhaps as few as none of the units are ES&S Optech Eagles using APS firmware other than 1.52

- ES&S operates and maintains all equipment and election management software under a contract with the County. The ES&S staff tests the Optech III P Eagles, deliver them to precincts, train the poll workers, provide on-site assistance, retrieve the units after the election, and prepare them for storage at the warehouse. The County IT staff participate with ES&S in conducting logic and accuracy testing prior to each election

- The County uses documentation and procedures developed by ES&S to operate the election management software and the optical scan units. Procedures include "Functional Specification for ES&S Hardware/Software Implementation", "Nov 2003 Testing Overview", "Nov 2003 Operational Plan", "Nov 2003 L&A Eagles Test Plan", "Nov 2003 Eagle Procedure and Checklist", "Nov 2003 L&A 4C Test Plan", "Nov 2003 4C Procedure & Checklist", and "Nov 2003 Testing Highlights". These procedures were reviewed by the consultants

- The election management software and computers are located in the Registrar of Voters locked computer room. Security is maintained by a required access code to enter the computer room

San Mateo County

Background

The consultant met with Mr. David Tom, Election Division Manager, and Mr. Louis Dedier, ES&S, at the County offices located at 40 Tower Road, San Mateo, California on March 15, 2004.

The County representative stated that ES&S Unity version 2.2 Election Reporting Manager version 6.3.2.9 is installed as the County's election management software. The County uses the ES&S Optech IV-C version 1.07a for central count optical scan. The County also uses the ES&S Optech II Eagles in the precincts. The County originally purchased the ES&S election magament software in 2002. The election management software and optical scan units were used in the October and November 2003 elections and in the March 2004 election.

The election management software and central optical scan units were housed in the County offices. The Optech Eagles were located in a County warehouse. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County and ES&S representatives and the required sample of the components.

Components Reported and Reviewed in San Mateo County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Unity version 2.2 ES&S Election Reporting Manager version 6.3.2.9	1	3
Central Count: Optical Scan	ES&S Optech IV-C version 1.07a	2	2
Precinct Count: Optical Scan	ES&S Optech II Eagle • HPS version 1.30 • APS version 1.52 • APS version 1.50	 517 517	 96 95 1

Table 26

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity 2.2 Election Report Manager version 6.3.2.9 as its election management software

- The County has the election management software installed on a central server with two work station computers

- The ES&S staff were the primary operators of the election management software, computers, and central count optical scan units

- The consultant reviewed both ES&S Optech IV-C optical scan units and found that both had firmware version 1.07a

- The consultant examined 96 Optech II Eagle optical scan units and found they all contained HPS version 1.30

- Based on our review of the sample of 96 of the 517 Optech II Eagle optical scan units, we are 95% confident that no more than 2.6% and perhaps as few as none of the units are ES&S Optech II Eagles using HPS firmware other than 1.30

- The firmware for the Optech II Eagle is provided by memory packs that were programmed by ES&S and inserted in the Eagles prior to the election. These memory packs were removed after the election and delivered to the central office for ballot counting. Subsequently they are boxed and placed in a locked vault until needed or the next election. Due to the recent election, the SOS's Chief of Elections directed us not to sample the firmware in the memory packs during our initial site review. A consultant returned to the County on April 7, 2004 and examined a sample of 96 of the 517 memory packs and found that all the packs examined contained APS version 1.52, except for one that contained APS version 1.50

- Based on our review of the sample of 96 of the 517 Optech II Eagle optical scan unit – memory packs, we are 95% confident that no more than 5.0% and perhaps as few as 0.2% of the units are ES&S Optech II Eagles using APS firmware other than 1.52

- ES&S operates, maintains, and provides on-site assistance with all equipment and election management software under a contract with the County

- The County IT staff participates with ES&S in conducting the logic and accuracy tests of election management software and equipment prior to each election

- The County uses documentation and procedures developed by ES&S to operate the election management software and the optical scan units

- The County has developed and provides other comprehensive procedures including "Test Ballot Verification Optech IV-C", "Post-Election Procedures", "1% Manual Recount Procedures", "Preliminary Precinct Canvass", and "Eagle Logic and Accuracy Checklist"

- The software and computers are located in the Registrar of Voters locked computer room. Security is maintained by a required access code to enter the computer room

Stanislaus County

Background

The consultant met with Ms. Lee Lundrigan, Clerk-Recorder, and Mr. Louis Dedier, ES&S representative, at the County offices located at 1021 I Street, Modesto, California on February 23, 2004.

The County representative stated that Stanislaus County leases voting systems from ES&S for each election. The County used the ES&S Unity 2.0 version 6.3.2.11 as the election management software and ES&S Model 550 version 2.0.1.0 for central count optical scan for the October and November 2003 elections. The County anticipated using the Election Reporting Manager version 6.3.2.11 and ES&S Model 650 version 1.1.9.1 optical scan units in the March 2004 election.

The election management software and optical scan units were housed in the County offices. Based on information provided by the County representative, the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Stanislaus County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Unity 2.0 Election Reporting Manager version 6.3.2.11	1	1
Central Count: Optical Scan	ES&S Model 650 version 1.1.9.1	3	3

Table 27

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity version 2.0 Election Reporting Manager version 6.3.2.11 as its election management software
- The County has the election management software installed on one laptop computer
- The consultant reviewed all three ES&S 650 optical scan units and found all had firmware version 1.1.9.1 installed
- ES&S staff operates the election management software and optical scan units for each election. The County assists with logic and accuracy tests
- The County uses documentation and procedures developed by ES&S to operate the Unity

software and the optical scan units

Tuolumne County

Background

The consultant met with Mr. Tim Johnson, County Clerk, and Ms. Jacqueline St. George, Assistant County Clerk, at the County offices located at 39 N. Washington Street, Sonora, California on February 17, 2004.

The County representatives stated that ES&S Unity version 2.0 Election Reporting Manager version 6.3.2.11 is installed as the County's election management software. The County used that software and the ES&S Model 550 version 2.0.1.0 for central count optical scan in the October and November 2003 elections. The County anticipated using the ES&S Unity version 2.0 Election Reporting Manager 6.3.2.11 software and ES&S Model 550 version 2.0.1.0 optical scan units in the March 2004 election.

The election management software and optical scan units were housed in the County offices. Based on information provided by the County representative, the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Tuolumne County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	ES&S Unity 2.0 Election Reporting Manager version 6.3.2.11	1	2
Central Count: Optical Scan	ES&S Model 550 version 2.0.1.0	2	2

Table 28

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the ES&S Unity version 2.0 Election Reporting version 6.3.2.11 as its election management software
- The election management software is installed on two computers. One is used for backup only
- The consultant reviewed both ES&S Model 550 optical scan units and found that they both had firmware version 2.0.1.0 installed

- The County uses documentation and procedures developed by ES&S to operate the software and the optical scan units

- The County has not developed written procedures other than those used by ES&S

HART INTERCIVIC

The review included one county using Hart InterCivic voting system components. Orange County uses Hart InterCivic voting systems.

Table 29, titled "Hart InterCivic Components", summarizes the election management software, equipment and firmware installed in the County on the date of the review.

Hart InterCivic Components

County	Equipment and Version
Orange	Hart InterCivic Tally version 3.2 Hart InterCivic Ballot Now ► Application version 2.02.06 ► BNP version 2.02.06 ► Security DB version 2.01.00 Kodak i830 Scanners Fujitsu 4099 Scanner Hart InterCivic eSlate 3000 version 2.0.13 Hart InterCivic JBC 1000B version 2.0.13

Table 29

Following is a summary of the review information collected for the County.

Orange County

Background

The consultant met with Mr. Mike Lundquist, Assistant Registrar of Voters, at the County offices located at 1300-C South Grand Avenue, Santa Ana, California on April 2, 2004.

County representatives stated that the Hart InterCivic Tally software, Ballot Now software, and scanners were used in both the October 2003 and March 2004 elections. The eSlate DRE's and JBC's were used only in the March 2004 election. The County did not have a November 2003 election.

Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the

information provided by the County representative and a review of the components.

Components Reported and Reviewed in Orange County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Hart InterCivic Tally version 3.2 Hart InterCivic Ballot Now • Application version 2.02.06 • BNP version 2.02.06 • Security DB version 2.01.00	1 1	1 1
Central Count: Optical Scan	Kodak i830 Fujitsu 4099	3 1	3 1
DRE Units	Hart InterCivic eSlate 3000 version 2.0.13 Hart InterCivic JBC 1000B version 2.0.13	9,000 1,750	115 103

Table 30

Findings and Conclusion (s)

During the review the consultant found the following:

- The County currently has installed the Hart InterCivic Tally version 3.2 as its election management software
- The central count optical scan units consisted of three Kodak i830 scanners and one Fujitsu 4099 scanner. The scanners are controlled by Hart InterCivic Ballot Now software version 2.02.06
- The DRE units sampled were Hart InterCivic eSlate 3000 and all of the units examined were using firmware version 2.0.13
- Based on our review of the sample of 115 of the 9,000 eSlate DRE units, we are 95% confident that no more than 2.9% and perhaps as few as none of the units are Hart InterCivic eSlate DRE's using firmware other than 2.0.13
- The DRE units are controlled by Judges Booth Controllers (JBC) 1000B and all of the 103 units examined were using firmware 2.0.13. The JBC is used to program the eSlate with the appropriate precinct and party ballot
- Based on our review of the sample of 103 of the 1,750 JBC units, we are 95% confident that no more than 2.9% and perhaps as few as none of the units are Hart InterCivic JBC's using firmware other than 2.0.13

- The County uses the Secretary of State certified Hart InterCivic comprehensive set of manuals for operating the software and eSlate systems. The Hart InterCivic procedures, manuals and specifications were examined by the consultant

- The County utilizes a sophisticated electronic inventory tracking system that documents the location of each piece of voting system equipment by serial number, county inventory number, storage location, and deployment to a polling place

- The County secures the election management software and equipment in locked rooms and locked warehouse space

Microcomputer Tally System (MTS) InkaVote

The review included one county using Microcomputer Tally System (MTS) InkaVote voting system components. Los Angeles County has developed InkaVote for use as the county's voting system.

The review was conducted on February 10, 2004. Table 31, titled "Microcomputer Tally System (MTS) InkaVote", summarizes the election management software, equipment and firmware installed in the county on the date of the review.

Microcomputer Tally System (MTS) InkaVote Components Reported and Reviewed

County	Equipment and Version
Los Angeles	MTS InkaVote version 1.3.1 LRC Ballot/Card Readers

Table 31

Following is a summary of the review information collected for the County.

Los Angeles County

Background

The consultant met with Mr. Michael Petrucello, Assistant Registrar-Recorder, Mr. R. Vern Cowles, Manager Precinct & Systems Division, and Mr. Brian Ikenaga, Data Systems Analyst, at the County offices located at 12400 East Imperial Avenue, Norwalk, California on February 10, 2004.

The County's early voting system was previously reported on in the Secretary of State *Diebold Voting System Review in Seventeen Counties* dated December 15, 2003. This second review focused on the system the County uses for Election Day voting.

County representatives stated that the InkaVote proprietary optical scan system version 1.3.0 was used for the October and November 2003 elections and that the County intended to use version 1.3.1 in the March 2004 primary election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components within the scope of this review. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Los Angeles County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	MTS InkaVote version 1.3.1	1	1
Ballot/Card Readers	LRC Ballot/Card Readers	40	39

Table 32

Findings and Conclusion (s)

During the review the consultant found the following:

- The MTS Tally system is a proprietary system. Updates have been made as required over the years, the most recent of which was an upgrade to provide for cross-over voting
- The County has 40 ballot/card readers. One was out for service the day of the review and therefore 39 ballot/card readers were examined
- The County uses Secretary of State certified "Procedures for the Use of the InkaVote Optical Scan Voting System". The procedures were examined by the consultant and portions of the procedures were discussed with the County representatives
- The County provides for controlled access locked rooms for the voting equipment and a separate locked and alarmed room for the MTS software
- While the County enjoys a respected reputation among other counties for their Poll Workers Manual or other training and voting system reference material, the County did not provide the consultant a copy of the material for this review

SEQUOIA VOTING SYSTEMS

The review included 17 counties using Sequoia (Sequoia) voting system components:

- ► Alpine County
- ► Calaveras County
- ► Del Notre County

- Glenn County
- Imperial County
- Inyo County
- Kings County
- Mariposa County
- Mono County
- Napa County
- Riverside County
- San Benito County
- San Bernardino County
- Santa Clara County
- Shasta County
- Sierra County
- Tehama County

Table 33, titled "Sequoia Voting Systems Components", summarizes the election management software, equipment and firmware installed in each of the counties on the date of the review.

Sequoia Voting Systems Components

County	Equipment and Version
Alpine	Teamwork version 6.1 Diamondi International Ballot/Card Reader Datavote Ballot/Card Reader
Calaveras	Teamwork version 6.1 Documation M1000L Ballot/Card Readers
Del Norte	Teamwork version 8.0E Documation RM600L Ballot/Card Reader Benton Company BC1000 Ballot/Card Reader
Glenn	Teamwork version 8.0E Benton Company BC1000 Ballot/Card Reader Documation M1000L Ballot/Card Reader
Imperial	Teamwork version 8.0E Benton Company BC1000 Ballot/Card Reader
Inyo	Teamwork version 8.0E Business Records Corp. M600L Ballot/Card Readers
Kings	Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 400-C version 3.0 Optech IIIP Eagle • HPS version 1.30 • APS version 1.52

Mariposa	Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 Optech III Eagle • HPS version 1.30 • APS version 1.52
Mono	Software Leased – version unknown Optech Eagle HPS version 1.30
Napa	Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 WinEDS version 3.00.099 400-C WinETP version 1.02b AVC Edge version 4.2
Riverside	WinEDS version 3.0 Mark-A-Vote AVC Edge version 4.2
San Benito	Teamwork version 6.1 Benton Company BC1000 Ballot/Card Readers
San Bernardino	Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 WinEDS version 3.0 400-C WinETP version 1.02b AVC Edge version 4.2
Santa Clara	WinEDS version 3.00.099 400-C WinETP version 1.02b AVC Edge II versions 4.2, 4.2.4, 4.2.5, 4.2.5.6a
Shasta	WinEDS version 3.0 400-C WinETP version 1.02b AVC Edge version 4.2
Sierra	Teamwork version 6.1 LRC, Inc. CPM 1000 Ballot/Card Reader
Tehama	October & November 2003: Teamwork version 8.0E March 2004: WinEDS version 3.00.099 400-C WinETP version 1.02b AVC Edge version 4.2

Table 33 *(continued)*

Following is a summary of the review information collected for each of the counties using the Sequoia voting systems.

Alpine County

Background

The consultant met with Ms. Barbara Jones, Registrar of Voters, at the County offices located at 99 Water Street, Markleeville, California on January 23, 2004.

The County representative stated that Sequoia Teamwork version 6.1 is installed as the County's election management software and that the voting system also includes one Diamondi International ballot/card reader and one Datavote ballot/card reader. The County representative indicated that ballots were hand counted in the October 2003 election and the County did not have a November 2003 election. She also indicated that Teamwork Version 6.1 and the ballot/card readers would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County office. Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Alpine County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 6.1	1	1
Ballot/Card Readers	Diamondi International	1	1
	Datavote	1	1

Table 34

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Teamwork version 6.1 as its election management software
- The Sequoia Teamwork version 6.1 is installed on one computer
- The County has two ballot/card readers. One is used as a back up
- The Sequoia Teamwork version 1.1 was originally purchased by the County in 1985 and the election management software has been upgraded twice since that time

- The County secures the software and the ballot/card readers in the Registrar of Voters office. Access is controlled by the location and password

- The County uses procedures and documentation provided by Sequoia for operating Teamwork version 6.1 and the ballot/card readers

Calaveras County

Background

The consultant met with Ms. Karen Varni, County Clerk, at the County offices located at 891 Mountain Ranch Road, San Andreas, California on February 17, 2004.

The County representative stated that Sequoia Teamwork version 6.1 is installed as the County's election management software and that the voting system also includes two Documation, Inc. ballot/card readers. The County representative indicated that Teamwork version 6.1 and ballot/card readers were used in the October and November 2003 elections and would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Calaveras County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 6.1	1	1
Ballot/Card Readers	Documation, Inc. M1000L	2	2

Table 35

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Teamwork version 6.1 as its election management software

- The Sequoia Teamwork version 6.1 is installed on one computer

- The County has two ballot/card readers. One is used as a back up

- The Sequoia Teamwork was originally purchased by the County in 1983 and the election management software has been upgraded twice since that time

- The County secures the software and the ballot/card readers in the County Clerk's office. Access is controlled by the location and password

- The County uses procedures and documentation provided by Sequoia for operating Teamwork version 6.1 and the ballot/card readers

Del Norte County

Background

The consultant met with Ms. Vicki Frazier, County Clerk-Recorder, at the County offices located at 981 H Street, Crescent City, California on April 6, 2004.

The County representative stated that Sequoia Teamwork 8.0E is installed as the County's election management software and operates with two ballot/card readers. The County representative stated that the County purchased Teamwork version 8.0E in October 2000 and the application has not been upgraded since that time. The County representative indicated that Teamwork version 8.0E and ballot/card readers were used in the October and November 2003 elections and in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Del Norte County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 8.0E	1	2
Ballot/Card Readers	Documation RM600L	1	1
	Benton Company BC1000	1	1

Table 36

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Teamwork version 8.0E as its election management software

- Teamwork version 8.0E was originally purchased by the County in October 2000 and has not been upgraded since that time
- Teamwork version 8.0E is installed on two computers
- The consultant examined both ballot/card readers
- The election management software and ballot/card readers are located in the County Clerks office
- The County uses procedures and documentation provided by Sequoia for operating Teamwork version 8.0E and the ballot/card readers

Glenn County

Background

The consultant met with Ms. Susan Alves, Assistant Clerk-Recorder, and Mr. George Soares, Supervising Office Technician, at the County offices located at 516 W. Sycamore Street, Willows, California on January 22, 2004.

The County representatives stated that Sequoia Teamwork version 8.0E is installed as the County's election management software and that the voting system also includes two ballot/card readers. The County representatives indicated that Teamwork version 8.0E and ballot/card readers were used in the October and November 2003 elections and would be used in the March 2004 election.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Glenn County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 8.0E	1	1
Ballot/Card Readers	Benton Company BC1000 Documation, Inc. M1000L	1 1	1 1

Table 37

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Teamwork version 8.0E as the election management software
- Sequoia Teamwork version 8.0E is installed on two computers. One is used solely as a back up
- The County has two ballot/card readers. One is used as a back up
- Sequoia Teamwork version 8.0E was originally purchased by the County in 1992 and the election management software has been upgraded since that time
- The County secures the software and the ballot/card readers in the Registrar of Voter's main office. Access is controlled by the location and password
- The County uses procedures and documentation provided by Sequoia for operating Teamwork version 8.0E and the ballot/card readers
- The County has developed and provides other comprehensive procedures including "Poll Workers Manual" and "Inspector's Instructions and Check List"

Imperial County

Background

The consultant interviewed by telephone Ms. Dolores Provencio, Registrar of Voters on February 12, 2004 and again on March 26, 2004. The County representative stated that the County contracts with Sequoia for both the election management software and the ballot/card reader for each election. The County representative did not know the Sequoia system that was used in the October or November 2003 election; however, she stated that for the March 2004 election, Sequoia had used Teamwork version 8.0E as the election management software and one Benton Company BC1000 ballot/card reader.

The election management software and ballot/card readers were housed in the County offices only for a few days before and after the election. Sequoia removed the election management software and ballot/card reader once the election results were compiled. Therefore, the consultant did not examine any voting system components. The following table identifies the information provided by the County representative.

Components Reported and Reviewed in Imperial County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 8.0E	1	0
Ballot/Card Reader	Benton Company BC1000	1	0

Table 38

Findings and Conclusion(s)

During the interview the consultant found the following:

- The County representative stated that the County contracts with Sequoia to provide and operate the election management software and ballot/card readers for each election
- Sequoia provided Teamwork version 8.0E as the election management software and one ballot/card reader for the March 2004 election
- The Sequoia Teamwork version 8.0E was installed on one Sequoia computer

Inyo County

Background

The consultant met with Ms. Beverly Harry, Clerk-Recorder, and Ms. Mary Roper, Assistant Clerk-Recorder, at the County offices located at 168 North Edwards Street, Independence, California on February 20, 2004.

The County representatives stated that Sequoia Teamwork version 8.0E is installed as the County's election management software and that the voting system also includes two Business Records Corporation Documation ballot/card readers. The County representatives indicated that Teamwork version 8.0E and ballot/card readers were used in the October 2003 election and would be used in the March 2004 election. The ballots for the November 2003 election were counted by hand.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting systems components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Inyo County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 8.0E	1	1
Ballot/Card Readers	Business Records Corp. Documation M600L	2	2

Table 39

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Teamwork version 8.0E as its election management software
- The Sequoia Teamwork version 8.0E is installed on one computer
- The County has two ballot/card readers. One is used as a back up
- The Sequoia Teamwork version 1.5 was originally purchased by the County in 1993 and the election management software has been upgraded since that time
- The County secures the software and the ballot/card readers in the Clerk-Recorders office Access is controlled by the location and password
- The County uses procedures and documentation provided by Sequoia for operating Teamwork version 8.0E and the ballot/card readers

Kings County

Background

The consultant met with Mr. Ken Baird, Assistant Assessor, Clerk, Recorder, and Mr. Edward Rose, Elections Manager, at the County offices located at 1400 W. Lacey Boulevard, Hanford, California on March 31, 2004.

The County representatives stated that Sequoia Election Management System (EMS) version 3.53 and Automated Election Returns Operation (AERO) version 3.53 are installed as the County's election management software and that the voting system also includes one Sequoia 400-C optical scan unit and 40 Sequoia Optech III P Eagle optical scan units. The County representatives indicated that EMS version 3.53, AERO version 3.53, and the optical scan units were used in the October and November 2003 elections and also in March 2004 election.

The election management software, 400-C and one Optech III P Eagle were housed in the County offices. The remaining 39 Optech III P Eagles were housed in the County's warehouse near the offices. Based on information provided by the County representatives it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Kings County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Election Management System (EMS) version 3.53 Sequoia Automatic Election Returns (AERO) version 3.53	1 1	2 2
Central Count: Optical Scan	Sequoia 400-C version 3.0	1	1
Precinct Count: Optical Scan	Sequoia Optech III P Eagle • HPS version 1.30 • APS version 1.52	 40 40	 40 40

Table 40

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Election Management System (EMS) version 3.53 and Automatic Election Returns (AERO) version 3.53 as its election management software
- The EMS version 3.53 and AERO version 3.53 are installed on two computers. One computer is used solely as a back-up
- The County originally purchased EMS version 3.51 and the AERO version 3.51 in 1999 and the election management software was upgraded once in 2000
- The County has 40 Optech IIIP Eagle optical scan units. All units were examined and all had an HPS version 1.30. The County representatives indicated memory packs with HPS version 1.52 were used for the October and November 2003 elections, and the March 2004 election. Each of the memory packs used in the March 2004 election were examined and all had version 1.52 installed
- The County secured the election management software, the 400-C optical scan unit and one Optech IIIP Eagle optical scan unit in the Elections office. The location, password, and equipment keys controlled access. The remaining 39 Optech IIIP Eagle units were locked in the County's warehouse
- The County uses procedures and documentation provided by Sequoia for operating EMS

System version 3.53, AERO System version 3.53 and the optical scan units

- The County has developed and provided other written procedures including "Optech III-PE/IV-C Coding and Accumulation System" and "Optech-3PE Eagle Keypad Functions" These procedures were examined by the consultant

Mariposa County

Background

The consultant met with Ms. Marjorie Wass, Registrar of Voters, Ms. Darlene Norman, Deputy Clerk-Elections, and Mr. Keith Williams, Assistant Registrar of Voters, at the County offices located at 4982 10th Street, Mariposa, California on February 18, 2004.

The County representatives stated that Sequoia Election Management System (EMS) 3.53 and Automatic Election Returns (AERO) 3.53 are installed as the County's election management software and that the voting system also includes sixteen Sequoia Optech IIIP Eagle HPS version 1.30 optical scan units. The County representatives indicated memory packs with APS version 1.52 would be used for the March election. Sequoia provides the memory packs just prior to the election.

The County representatives indicated that EMS version 3.53, AERO version 3.53, and the optical scan units were used in the October 2003 election and would be used in the March 2004 election. In the November 2003 election, the ballots were counted by hand.

The election management software and ballot/card readers were housed in the County offices. Based on information provided by the County representatives it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Mariposa County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Election Management System (EMS) version 3.53	1	1
	Sequoia Automated Election Returns (AERO) version 3.53	1	1
Central or Precinct: Optical Scan	Sequoia Optech IIIP Eagle		
	• HPS version 1.30	16	16
	• APS version 1.52	1	1

Table 41

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Election Management System (EMS) version 3.53 and Automatic Election Returns Operation (AERO) version 3.53 as its election management software

- The EMS version 3.53 and AERO version 3.53 are installed on one computer

- The EMS version 3.53 and the AERO version 3.53 were originally purchased by the County in 2000 and the election management software has not been upgraded since that time

- The consultant reviewed 16 Optech IIIP Eagle HPS version 1.30 optical scan units. One memory pack was available to activate the machines. The memory pack was APS version 1.52

- The County secures the software and the optical scan units in the Registrar of Voters offices. Access is controlled by the location, password, and equipment keys

- The County uses procedures and documentation provided by Sequoia for operating EMS version 3.53, AERO version 3.53 and the optical scan units

- The County has developed and provided other written procedures including "Optech Eagle Start Instructions", "Optech Eagle Close (Finish) Instructions", "Set Up Election in EMS & Burning Eagle Paks", "Cleaning and Maintenance of Eagles", and "Modem Testing Packs in the Field". These procedures were examined by the consultant

Mono County

Background

The consultant met with Ms. Renn Nolan, Clerk-Recorder, at the County offices located at the Courthouse Annex, 74 School Street, Bridgeport, California on February 19, 2004.

The County representative stated that Sequoia provides and operates the software for all elections under contract with the County. The election management software was not on site since Sequoia arrives only a few days prior to the election. The County representative stated the contract does not specify the version of election management software to be used. The County's voting system also includes ten Sequoia Optech Eagle optical scan units and the County owns these units.

The County representative indicated that Sequoia provided the election management software for the October 2003 election and will also provide it for the March 2004 election. Eight of the optical scan units were used in the precincts and two were used as central count units for the October 2003 election and the same use was anticipated for the March 2004 election. The County did not have a November 2003 election.

The optical scan units were housed in the County offices. Based on information provided by the

County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Mono County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Unknown	1	0
Central & Precinct Count: Optical Scan	Sequoia Optech III P Eagle • HPS version 1.30 • APS version 1.52	 10 1	 10 1

Table 42

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has contracted with Sequoia for its election management software and the version is unknown
- The Sequoia election management software is not installed on any of the County's systems
- The County owns ten Sequoia Optech IIIP Eagle HPS version 1.30 optical scan units. The one memory pack available to activate the units used firmware APS version 1.52. (Sequoia brings to the County the number of required, preprogrammed memory packs for an election)
- The County has contracted with Sequoia since 1999. The Sequoia optical scan units were purchased in 1999 and first used in the September 1999 election
- The County secures the optical scan units in a locked room in the courthouse. Access is controlled by the location and equipment keys
- The County uses procedures and documentation provided by Sequoia for operating the Optech IIIP Eagles. These procedures were examined by the consultant

Napa County

Background

The consultant met with Mr. John Tuteur, Assessor-Recorder-County Clerk, at County offices located at 900 Coombs Street, Napa, California on April 5, 2004.

The County representative stated that Sequoia WinEDS version 3.00.099 is installed as the

County's election management software. The County uses Sequoia AVC Edge DRE units with firmware version 4.2 in the precincts and the Sequoia 400-C version 1.02b for central count optical scan. The County also uses Sequoia AERO version 3.53 software to operate with 400-C optical scanner. The County originally purchased the Sequoia WinEDS version 3.00.099 in 2003. The software was used for the October 2003 and March 2004 elections. The AVC Edge DRE units were first used in limited test for the March 2003 election and used throughout the County in the March 2004 election. The County did not have a November 2003 election.

The election management software and optical scan unit were housed in the County offices. The AVC Edge DRE units were housed in the County's warehouse. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Napa County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Election Management System (EMS) version 3.53 Sequoia Automatic Election Returns (AERO) version 3.53 Sequoia WinEDS 3.00.099	1 1	1 1
Central Count: Optical Scan	Sequoia 400-C WinETP version 1.02b	1	1
DRE Units	Sequoia AVC Edge version 4.2	350	85

Table 43

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Sequoia WinEDS version 3.00.099 as its election management software
- The consultant examined 85 DRE units and all of the units were confirmed as firmware version 4.2
- Based on our review of the sample of 85 of the 350 AVC Edge DRE units, we are 95% confident that no more than 3.2% and perhaps as few as none of the units are Sequoia AVC Edges using firmware versions other than 4.2
- The County uses the Sequoia 400-C optical scanner with WinETP firmware version 1.02b for early voting and absentee ballots. The County uses Sequoia AERO version 3.53 as the software to interface with the 400-C
- The County uses procedures and documentation provided by Sequoia for operating

WinEDS, the 400-C WinETP and the AVC Edge. These procedures were examined by the consultant

- The County has developed a specific procedure manual for the DRE's entitled "AVC Edge Poll Worker Manual". The procedures were examined by the consultant

- The County provides controlled access locked rooms for the voting system equipment, election management software and ballots

Riverside County

Background

The consultant talked with Ms. Mischelle Townsend, Registrar of Voters, by telephone on April 7, 2004 and was advised that the County would be starting an election recount on April 8, 2004. The SOS Chief of Elections determined that we should not inventory the County's voting systems and equipment until after the recount was completed.

Mr. Michael Wagaman, Elections Analyst with the Secretary of State, talked with Ms. Mischelle Townsend by telephone on April 9, 2004 to discuss the County's software and equipment. An addendum to this report will be prepared, including finding and conclusions related to Riverside, and submitted once the recount is complete and the County is available to receive a consultant to conduct the review.

Ms. Townsend reported that Sequoia WinEDS version 3.0 is installed as the County's election management software. The County uses Sequoia AVC Edge DRE units with firmware version 4.2 in the precincts and the Mark-A-Vote optical scanners in the central office. In addition, the County uses DFM Associates BCWin™ for absentee voting.

The election management software, optical scan units and the DRE units were housed in the County offices. The following table identifies the information provided by the County representative.

Components Reported in Riverside County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia WinEDS version 3.0	1	
DRE Units	Sequoia AVC Edge version 4.2	4,250	
Absentee Voting	DFM Associates BCWin™ • ELNCount 1.00.0101 • ELNPrep 2.00.0008 • ELNUtl 1.00.0000	1	

Table 44

San Benito County

Background

The consultant met with Ms. Lillian Pereira, Assistant Clerk-Recorder and Mr. Mike Hodges at County offices located at 440 5th Street, Room 206, Hollister, California on January 29, 2004.

The County representatives stated that Sequoia Teamwork version 6.1 is installed as the County's election management software. The County uses the TeamWork version 6.1 software along with one ballot/card reader. This system was used for the October and November 2003 elections and would be used in the March 2004 election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in San Benito County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 6.1	1	1
Ballot/Card Reader	Benton Company BC1000	3	3

Table 45

Findings and Conclusion(s)

During the review the consultant found the following:

- The Sequoia Teamwork version 6.1 is currently installed as the County's election management software
- The County uses a Benton Company Model BC1000 ballot/card reader and maintains two additional ballot/card readers as back-up
- The County uses pre-scored ballots for absentee voting
- The County uses procedures and documentation developed by Sequoia for the operation of the voting system
- The County developed and maintains additional procedures in an "Inspector's Instructions and Check list"
- The County provides for controlled access to the voting system equipment and software and the County stores the ballots in a safe

San Bernardino County

Background

The consultant met with Mr. Scott Konopasek, Registrar of Voters, and Mr. Steven Trout, Deputy Registrar of Voter's at the County offices located at 777 E. Rialto Avenue, San Bernardino, California on April 7, 2004.

The County representative stated that Sequoia WinEDS version 3.00.099 is installed as the County's election management software. The County uses Sequoia AVC Edge DRE units with firmware version 4.2 in the precincts and the Sequoia 400-C version 1.02b for central count optical scan. The County originally purchased the Sequoia WinEDS version 2.6 in May 2003. The initial use was for the October 2003 election. The election management software was upgraded to version 3.00.099 prior to its use in the November 2003 election and was used in the March 2004 election.

The election management software, optical scan units and the DRE units were housed in the County offices. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in San Bernardino County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Election Management System (EMS) version 3.53 Automatic Election Returns (AERO) version 3.53 Sequoia WinEDS version 3.00.099	1	1
Central Count: Optical Scan	Sequoia 400-C WinETP version 1.02b	4	4
DRE Units	Sequoia AVC Edge version 4.2	3,999	110

Table 46

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Sequoia WinEDS version 3.00.099 as its election management software
- Sequoia WinEDS version 3.00.099 is installed on one server and eleven computer tally stations

- The consultant examined 110 DRE units and all had firmware version 4.2
- Based on our review of the sample of 110 of the 3,999 AVC Edge units, we are 95% confident that no more than 2.9% and perhaps as few as none of the units are Sequoia AVC Edges using firmware other than 4.2
- The consultant examined 6 optical scan units and all were found to be Sequoia 400-C WinETP version 1.02b with AERO version 3.53 and EMS version 3.53
- The County uses procedures and documentation provided by Sequoia for operating WinEDS, the 400-C WinETP and the AVC Edge. These procedures were examined by the consultant
- The County has developed and provides other comprehensive procedures including "Poll Workers Manual" and "Inspector's Instructions and Check List"
- The County keeps detailed logs on each piece of voting system equipment (maintenance, repairs, testing, upgrades, deployment to a polling place, etc.)
- The County provides controlled access to locked rooms for the software and optical scan equipment. The DRE units are stored in the County warehouse

Santa Clara County

Background

The consultant met with Mr. Jesse Durazo, Registrar of Voters, Ms. Elaine Larson, Assistant Registrar of Voters, and Mr. Al Sacedo, Division Coordinator, at the County offices located at 1555 Berger Drive, Santa Clara, California on February 5, 2004.

The County representatives stated that Sequoia WinEDS 3.00.099 is installed as the County's election management software and that the voting system includes Sequoia 400-C WinETP optical scan units, and Sequoia Edge II DRE units. The County representatives indicated that WinEDS 3.00.099, optical scan units, and DRE units were used in the November 2003 election and would be used in the March 2004 election.

The County used DFM Associates BCWin™ (ELNCount 1.00.0101, ELN Prep 2.00.0008, ELN Utl 1.00.0000) software and ten Documation ballot/card readers for the October 2003 election.

The election management software and optical scan units were housed in the County offices. The DRE units were housed in an adjacent County warehouse. Based on information provided by the County representatives, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representatives and the required sample of the components.

Components Reported and Reviewed in Santa Clara County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia WinEDS version 3.00.099	1	1
Optical Scan	Sequoia 400-C WinETP version1.02b	3	3
DRE Units	Sequoia Edge II version 4.2 Sequoia Edge II version 4.2.4 Sequoia Edge II version 4.2.5 Sequoia Edge II version 4.2.5.6a	5,500	33 8 1 69

Table 47

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia WinEDS version 3.00.099 as its election management software
- WinEDS version 3.00.099 is installed on one server
- WinEDS version 3.00.099 was originally purchased by the County in 2003 and the election management software has not been upgraded since that time
- The County has three 400-C WinETP optical scan units and all three had firmware version 1.02b
- The County has 5,500 Edge II DRE units. Our sample of 111 found that 33 of the units sampled had firmware version 4.2 installed, eight units had firmware version 4.2.4 installed, 69 units had firmware version 4.2.5.6a installed, and one unit had firmware version 4.2.5 installed.
- Based on our review of the sample of 111 of the 5,500 AVC Edge DRE units, we are 95% confident that no more than 78.6% and perhaps as few as 60.2% of the units are Sequoia AVC Edges using firmware versions other than 4.2
- The County representatives indicated that only 1,700 units had been used in the November 2003 election and those units all used firmware version 4.2. They also indicated that all units which were to be used in the March primary would have the firmware updated before the election to version 4.2

- The County secures the software and the optical scan units in the Registrar of Voters computer room. Access is controlled by a locked security door and system passwords

- The County secures the DRE units in an adjacent warehouse. Access is controlled by ballot/card access to the exterior door, badge requirements, and gated access to DRE storage and testing area

- The County uses procedures and documentation provided by Sequoia for operating WinEDS version 3.00.099, the 400-C WinETP optical scan units, and the Edge II DRE units

- The County has developed and provided other written procedures including the "Registrar of Voters Systems and Security Manual"

Shasta County

Background

The consultant met with Ms. Ann Reed, County Clerk & Registrar of Voters, and Ms. Cathy Darling, Assistant County Clerk & Registrar of Voters, at County offices located at 1643 Market Street, Redding, California on January 23, 2004.

The County representatives stated that Sequoia WinEDS version 3.0 is installed as the County's election management software. The County uses Sequoia AVC Edge DRE units with firmware version 4.2 in the precincts and the Sequoia 400-C WinETP version 1.02b for central count optical scan. The County originally purchased the Sequoia WinEDS version 2.6 in May 2003. The initial use was for the October 2003 election. The election management software was upgraded to version 3.0 prior to its use in the November 2003 election and will be used in the March 2004 election.

The election management software, optical scan units and the DRE units were housed in the County offices. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Shasta County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia WinEDS version 3.0	1	1
Central Count: Optical Scan	Sequoia 400-C WinETP Firmware version 1.02b	2	2
DRE Units	Sequoia AVC Edge Firmware version 4.2	438	89

Table 48

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Sequoia WinEDS version 3.0 as its election management software
- The consultant examined 89 DRE units and all but three units were confirmed as firmware version 4.2. The remaining three DRE units indicated a message of "Results for Cartridge Removed Service Required". It was explained that this occurred when a DRE unit was prepared for an election, delivered to a polling station, subsequently not used for the election and the cartridge was removed. It does not indicate a problem with the unit but rather provides an indictor message to the County elections personnel
- Based on our review of the sample of 89 of the 438 AVC Edge units, we are 95% confident that no more than 10.4% and perhaps as few as none of the units are Sequoia AVC Edges using firmware other than 4.2
- The County uses procedures and documentation provided by Sequoia for operating WinEDS, the 400-C WinETP and the AVC Edge. The procedures were examined by the consultant
- The County has developed and provides other comprehensive procedures including "Poll Workers Manual" and "Inspector's Instructions and Check List"
- The County keeps detailed logs on each piece of voting system equipment, tracking and documenting every event (maintenance, repairs, testing, upgrades, deployment to a polling place, SOS reviews, etc.)
- The County provides controlled access locked rooms for the voting system equipment, software and ballots

Sierra County

Background

The consultant met with Ms. Mary Jungi, Clerk-Recorder, at County offices located at 100 Courthouse Square, Downieville, California on February 10, 2004.

The County representative stated that Sequoia Teamwork version 6.1 is installed as the County's election management software and that the voting system also includes one LRC, Inc. CPM 1000 ballot/card reader. The County representative indicated that Teamwork version 6.1 and the ballot/card reader were used in the October 2003 election and will be used in the March 2004 election. The County did not have a November 2003 election.

The election management software and ballot/card reader were housed in the County office. Based on information provided by the County representative, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representatives and a review of the components.

Components Reported and Reviewed in Sierra County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia Teamwork version 6.1	1	1
Ballot/Card Reader	LRC, Inc. CPM 1000	1	1

Table 49

Findings and Conclusion(s)

During the review the consultant found the following:

- The County has installed Sequoia Teamwork version 6.1 as its election management software
- The Sequoia Teamwork version 6.1 is installed on one computer
- The County has one LRC, Inc. Model CPM 1000 ballot/card reader
- The Sequoia Teamwork version 1.5 was originally purchased by the County in 1993 and the election management software has been upgraded twice since that time
- The County secures the software and the ballot/card reader in the Clerk-Recorders office. Access is controlled by the location and password

- The County uses procedures and documentation provided by Sequoia for operating Teamwork 6.1 and the ballot/card reader

Tehama County

Background

The consultant met with Ms. Beverly Ross, Assistant Registrar of Voters at County offices located at 633 Washington Street, Red Bluff, California on March 16, 2004.

The County representative stated that Sequoia WinEDS version 3.00.099 is installed as the County's election management software. The County uses Sequoia AVC Edge DRE units with firmware version 4.2 in the precincts and the Sequoia 400-C version 1.02b for central count optical scan. The County originally purchased the Sequoia WinEDS version 3.00.099 in 2003. The software, optical scan units, and the DRE units were used in the March 2004 elections.

The County used Sequoia Teamwork version 8.0E for the October and November 2003 elections with two Benton Company ballot/card readers.

The election management software and optical scan units are housed in the Elections Office and the DRE units were stored in a County warehouse located across the street. Based on information provided by the County representative, the number of components required to represent a statistically valid sample size was determined. The following table identifies the information provided by the County representative and the required sample of the components.

Components Reported and Reviewed in Tehama County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Sequoia WinEDS version 3.00.099	1	1
Central Count: Optical Scan	Sequoia 400-C WinETP version 1.02b	1	1
DRE units	Sequoia AVC Edge version 4.2	148	66

Table 50

Findings and Conclusion(s)

During the review the consultant found the following:

- The County currently has installed the Sequoia WinEDS version 3.00.099 as its election management software
- The County uses one Sequoia 400-C WinETP central count optical scan unit using firmware version 1.02b

- The consultant examined 66 DRE units and all were confirmed as version 4.2
- Based on our review of the sample of 66 of the 148 AVC Edge DRE units, we are 95% confident that no more than 4.3% and perhaps as few as none of the units are Sequoia AVC Edges using firmware other than 4.2
- The County uses procedures and documentation provided by Sequoia for operating WinEDS, the 400-C WinETP and the AVC Edge
- The County used Teamwork version 8.0E and two ballot/card readers for the October and November 2003 elections
- The County is in the process of developing detailed maintenance logs for each piece of voting system equipment
- The County has locked rooms for the voting system equipment and software

WEBB DEVELOPMENT SERVICES

The review included one county using Webb Development Services (WDS) voting system components.

The Yuba County on-site review was conducted on January 28, 2004. Table 51, titled "Webb Development Services Components Reported and Reviewed", summarizes the election management software, equipment and firmware installed in Yuba County on the date of the review.

Webb Development Services Components

County	Equipment and Version
Yuba	Webb Development Services Version 7.0 Diverse Integrated System Ballot/Card Readers

Table 51

Following is a summary of the review information collected for Yuba County.

Yuba County

Background

The consultant met with Ms. Terry Hansen, Clerk Recorder, and Ms. Pat Williams, Elections Supervisor, at County offices located at 935 14th Street, Marysville, California on January 28, 2004.

The County representatives informed the consultant that the County uses the Webb Development

Services (WDS) version 7.0 election management software and two ballot/card readers. This system was used in the October 2003 election and was expected to be used in the March 2004 election. The County did not have a November 2003 election.

Based on information provided by the County representatives, it was determined that the number of components was too small for valid sampling. Therefore, the consultant examined all voting system components. The following table identifies the information provided by the County representative and a review of the components.

Components Reported and Reviewed in Yuba County

Component	Equipment and Version	Reported Count	Sample Size
Election Management Software	Webb Development Services version 7.0	1	1
Ballot/Card Readers	Diverse Integrated System	2	2

Table 52

Findings and Conclusion(s)

During the review the consultant found the following:

- The County uses Webb Development Services (WDS) version 7.0 as the election management software. This software was developed especially for the County and was first installed in 1988
- WDS version 7.0 is installed on one server
- Both ballot/card readers were examined
- The County uses procedures and documentation provided by Webb Development Services for operating the voting system. The consultant did not review the procedures
- The County is currently developing other comprehensive procedures
- The County maintains voting system equipment, software and ballots in the Clerk Recorders office. Security is provided by the location

Attachment A
Listing of Counties that completed and returned the "County Voting System Information" form

Vendor	County	**Questionnaire Completed & Returned**
DATA INFORMATION MANAGEMENT SYSTEMS		
	El Dorado	Yes
	Monterey	No
	Yolo	Yes
DFM ASSOCIATES		
	Butte	Yes
	Contra Costa	Yes
	Lake	No
	Madera	No
	Sacramento	Yes
	Santa Cruz	Yes
	Sonoma	No
	Sutter	Yes
	Ventura	Yes
DIEBOLD		
	Kern	No
	San Diego	Yes
	San Joaquin	Yes
	Solano	Yes
ELECTION SYSTEMS & SOFTWARE		
	Amador	Yes
	Colusa	No
	Merced	Yes
	Nevada	No
	San Francisco	Yes
	San Mateo	No
	Stanislaus	Yes
	Tuolumne	Yes
HART INTERCIVIC		
	Orange	No
LOS ANGELES COUNTY InkaVote		
	Los Angeles	Yes
SEQUOIA		
	Alpine	Yes
	Calaveras	Yes
	Del Norte	Yes
	Glenn	Yes
	Imperial	No
	Inyo	No

Vendor	County	**Questionnaire Completed & Returned**
	Kings	No
	Mariposa	Yes
	Mono	Yes
	Napa	Yes
	Riverside	Yes
	San Benito	No
	San Bernardino	No
	Santa Clara	Yes
	Shasta	Yes
	Sierra	Yes
	Tehama	Yes
WEBB DEVELOPMENT SERVICES		
	Yuba	Yes

Attachment B
County On-site Review Questionnaire

County On-site Review Questionnaire

County Name _____ **Review Consultant** _____

Review Date _____ **Time of Review** _____

County Registrar _____ **Telephone** _____

County Representative(s) Interviewed:

- Name _____ _____
- Title _____ _____
- Telephone _____ _____

Location of interview: _____

Equipment currently in use:

- Absentee Voting _____
- Early Voting _____
- Statewide Election _____
- Local Election _____
- Provisional Ballots _____

Election Management Software:

- Location of Software: _____
- Software Company/Version: _____
- Originally Installed Version: _____ Date Installed:_____
- Software Upgrades: _____
- Election First Used: _____
- Used in 10/03 Election: Yes No

- Used in 11/03 Election: Yes No
- To be Used in 3/04 primary: Yes No
- Comments: _____

  _____

Optical Scanner – Central Count:

- Location(s) of Equipment: _____
- Equipment Company/Model: _____
- Firmware Version: _____
- Originally Installed Version: _____ Date Installed:_____
- Firmware Upgrades: _____
- Election First Used: _____
- Used in 10/03 Election: Yes No
- Used in 11/03 Election: Yes No
- To be Used in 3/04 primary: Yes No
- Comments: _____

  _____

Optical Scanner – Precinct Count:

- Location(s) of Equipment: _____
- Equipment Company/Model: _____
- Firmware Version: _____
- Originally Installed Version: _____ Date Installed:_____

- Firmware Upgrades: _____
- Election First Used: _____
- Used in 10/03 Election: Yes No
- Used in 11/03 Election: Yes No
- To be Used in 3/04 primary: Yes No
- Comments: _____

_____

Touch Screen – Precinct Count:

- Location(s) of Equipment: _____
- Equipment Company/Model:

_____

- Firmware Version: _____
- Originally Installed Version: _____ Date Installed:_____
- Firmware Upgrades: _____
- Election First Used: _____
- Used in 10/03 Election: Yes No
- Used in 11/03 Election: Yes No
- To be Used in 3/04 primary: Yes No
- Comments: _____

_____

County Policies and Procedures:

Software:

- How does the county ensure that new software is qualified and certified?

Upgrades?

- How does the county document receipt of new software?
- Who installs the software? How does the county document the installation?
- What documents does the county maintain to support the software? Software manuals? Procedure manuals? Testing manual?
- How does the county test the software when received? Periodically? Before elections? How does the county document the tests?
- Does the county install the software on more than one computer? How many? Where located? What uses?
- How does the county document upgrades/revisions to the software?
- What logs are maintained for the software? Maintenance? Access?

Voting Equipment (Ask for each type of equipment):

- How does the county ensure that new equipment is qualified and certified?
- How does the county document receipt of new equipment?
- Who sets up the equipment? How does the county document the set up?
- What documents does the county maintain to support the equipment? Procedure manuals? Equipment parts manuals? Operation manuals?
- How does the county test the equipment when received? Periodically? Before elections? How does the county document the tests?
- How does the county document repairs/modifications to the equipment?
- What procedures does the county use to prepare equipment for elections?
- How does the county track equipment to and from specific precincts?
- How does the county ensure that all equipment is accounted for after elections?
- What logs are maintained for the equipment? Maintenance? Access? Loans? Election tracking? Off-site tracking?

Voting Equipment Firmware (Ask for each type of equipment):

- How does the county ensure that new firmware is qualified and certified?
- How does the county document receipt of new firmware?
- Who installs the firmware? How does the county document the installation?
- What documents does the county maintain to support the firmware? Procedure manuals? Operator manuals? Testing manuals?
- How does the county test the firmware when received? Periodically? Before elections? How does the county document the tests?
- How does the county document upgrades/revisions to the equipment?
- What logs are maintained for the firmware? Maintenance? Access?

County On-site Review Sample Documentation

County _____

Location _____

Date _____ **Consultant** _____

Type of unit sampled _____ **Number at this location** _____

	Hardware		Firmware	
#	County #	Serial #	Version	Copyright
Sample				
1				
2				
3				
4				
5				
6				
7				
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Onsite Observations

Attachment C

County summary of sampling for review of voting system components – providing a 95% confidence and reliability factor

County	Voting System Component									
	Election Management Software		Precinct Count: Optical Scan		Central Count: Optical Scan		Ballot/Card Reader		DRE	
	Reported	Sampled	Reported	Sampled	Reported	Sampled	Reported	Sampled	Reported	Sampled
Alpine	1	1					2	2		
Amador	1	1	132	132						
Butte	1	1					5	5		
Calaveras	1	1					2	2		
Colusa	1	1			1	1				
Contra Costa	1	1					20	20		
Del Norte	1	1					2	2		
El Dorado	1	1					5	5		
Glenn	1	1					2	2		
Imperial	1	0					1	0		
Inyo	1	1					2	2		
Kern	1	1			6	6			1,350	108
Kings	2	2	40	40	1	1				
Lake	1	1					2	2		
Los Angeles	1	1					40	39		
Madera	1	1					2	2		
Mariposa	2	2			17	17				
Merced	1	1			2	2			446	91
Mono	1	1			11	11				
Monterey	1	1					6	6		
Napa	1	1			1	1			350	85
Nevada	1	1	1	1	2	1				
Orange	2	2			4	2			10,750	218
Riverside	1	1			2	2			350	86
Sacramento	1	1					8	8		
San Benito	1	1					3	3		
San Bernardino	1	1			4	4			3,999	110

County	Voting System Component									
	Election Management Software		Precinct Count: Optical Scan		Central Count: Optical Scan		Ballot/Card Reader		DRE	
	Reported	Sampled	Reported	Sampled	Reported	Sampled	Reported	Sampled	Reported	Sampled
Santa Clara	1	1			3	3			5,500	111
Santa Cruz	1	1					4	4		
San Diego	1	1			12	12			10,203	113
San Francisco	1	1	686	106	2	2				
San Joaquin	1	1	3	3	3	3			1,625	107
San Mateo	1	1			2	2			517	96
Shasta	1	1			2	2			438	89
Sierra	1	1					1	1		
Solano	1	1			2	2			1,171	105
Sonoma	1	1					9	9		
Sutter	1	1					4	4		
Stanislaus	1	1			3	3				
Tehama	1	1			1	1	1	1	148	66
Tuolumne	1	1			2	2				
Ventura	1	1					14	14		
Yolo	1	1					4	4		
Yuba	1	1					2	2		