

**SENATE . . . . . No. 331**

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The Commonwealth of Massachusetts

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PRESENTED BY:

*Anthony W. Petruccelli*

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*To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:*

The undersigned legislators and/or citizens respectfully petition for the passage of the accompanying bill:

An Act establishing risk-based audits of election results.

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PETITION OF:

NAME:	DISTRICT/ADDRESS:
<i>Anthony W. Petruccelli</i>	<i>First Suffolk and Middlesex</i>
<i>Martha M. Walz</i>	<i>8th Suffolk</i>
<i>Kenneth J. Donnelly</i>	<i>Fourth Middlesex</i>
<i>Ruth B. Balsler</i>	<i>12th Middlesex</i>
<i>Sal N. DiDomenico</i>	<i>Middlesex and Suffolk</i>
<i>Bruce E. Tarr</i>	<i>First Essex and Middlesex</i>

**SENATE . . . . . No. 331**

By Mr. Petruccelli, a petition (accompanied by bill, Senate, No. 331) of Anthony W. Petruccelli, Martha M. Walz, Kenneth J. Donnelly, Ruth B. Balser and other members of the General Court for legislation to establish risk-based audits of election results. Election Laws.

[SIMILAR MATTER FILED IN PREVIOUS SESSION  
SEE

□ SENATE  
□ , NO. 313 OF 2011-2012.]

**The Commonwealth of Massachusetts**

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**In the Year Two Thousand Thirteen**  
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An Act establishing risk-based audits of election results.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. Chapter 54 of the general laws, as appearing in the 2008 Official Edition, is  
2 hereby amended by inserting after section 109 the following section:-

3 Section 109A. Audits of election results

4 Purpose. The purpose of this section is to provide a routine cross-check on the accuracy  
5 of election night vote totals, both for ballots counted originally by hand and for ballots counted  
6 by machine. The audit compares reported preliminary (unofficial) election vote totals for certain  
7 election contests to hand-to-eye counts of the same ballots and contests in order to independently  
8 confirm election outcomes. In the case that the audit uncovers discrepancies that reach a  
9 specified level, a contest-wide hand count is mandated.

10 Definitions

11 “Contest”, A race in an election between two or more candidates on a ballot or between  
12 the Yes and No position of a ballot question

13 “Draw”, A random selection of an audit unit or precinct

14 “Error Rate”, see subsection (p)

15 (a) Contests to be Audited. Following each primary, general or special election, random  
16 hand-count audits shall be conducted for the following offices: US President, US Senator, US  
17 Representative, Governor, Secretary of the Commonwealth, State Attorney General and one of  
18 the following three state offices chosen by random drawing: Lieutenant Governor, Treasurer and  
19 Auditor. All statewide initiative and referenda questions shall be audited. Contests in which  
20 only one candidate’s name appears on the ballot shall not be audited. The state secretary, the  
21 governor, or the state auditor may require the audit of additional offices or precincts when  
22 anomalous conditions are observed. In addition, the chief election officer of any municipality  
23 may order an audit of any contest within that municipality.

24 Primaries that take place less than sixty days before a general election may be exempted  
25 from the audit at the discretion of the state secretary except when winning candidates are  
26 separated by less than 7% of the vote share from the nearest losing candidates.

27 (b) Discretionary Audits. Any candidate on the ballot who has received at least 12% of  
28 vote share, or any person who has received at least 12% of the vote share in the current election  
29 as a write-in, may request that up to four specified additional precincts be counted by hand.

30 These discretionary audit counts may be requested up to five days after the ordinary  
31 audits and their secondary expansions, if any, are completed for contests that are audited under  
32 this act. For contests not being audited under this act the request must be submitted within ten  
33 days of the election.

34 (c) The number of precincts to audit shall be based on the reported contest-wide Margin  
35 of Victory for each audited contest. The Margin of Victory percentage shall be calculated for  
36 each audited contest by dividing the difference between the total numbers of votes received by  
37 each of the two leading candidates or between the Yes and No referenda positions by the total  
38 number of ballots cast in all the precincts in which the audited contest appeared on the ballot.

39 (d) Report of preliminary results prior to random selection.

40 1. The preliminary unofficial election results for auditable contests, excluding  
41 unprocessed ballots such as provisional and late absentee ballots, shall be immediately reported  
42 to the state secretary and shall be provided in written format to members of the public. The state  
43 secretary shall make public the number and percentages of votes received for auditable contests,  
44 including blank votes and over-votes, before the random selection of precincts for the audit.  
45 The state secretary or the auditor shall calculate the Margins of Victory of the apparent winners.

46 2. Any representative of a candidate, ballot question or non-profit good-  
47 government organization present at close of polls may request and receive a printed copy of the  
48 signed tally slip/s on election night in order to verify the publicly posted results.

49                   3. A mechanism shall be implemented for timely, accessible public posting, such  
50 as on the Internet, of scanned copies of all precinct tally slips to the public no later than 2 years  
51 after the implementation of this law.

52                   4. A mechanism shall be implemented to convert the numeric information  
53 contained on the tally slips into a format amenable to mathematical manipulation for purposes of  
54 verification by mathematicians and the public no later than 4 years after implementation of this  
55 law.

56                   (a) The ballots for all contests susceptible to audit in all precincts shall be confined in  
57 secure facilities that prevent single person and single party access until completion of all audits,  
58 recounts and legal challenges except when such audits, recounts or legal challenges are taking  
59 place in full public view.

60                   (b) Time and Place of the Audit. Each municipality shall designate in advance the  
61 location where it will conduct an audit should it be selected for an audit in the random drawing.  
62 The audit shall commence no later than 48 hours following the selection of precincts to be  
63 audited. The general mechanism for scheduling and sequencing such audits in various areas of  
64 the state shall be developed by the state secretary in advance of the election as specified in  
65 subsection (v) of this section.

66                   (c) Random selection of precincts to be audited.

67                   Statewide contests shall be selected from a pool including all precincts in the state. US  
68 Congressional contests may be taken sequentially from the same audit sample. However, if  
69 additional Congressional precinct selections are needed they shall be drawn from a pool  
70 including all precincts in a single congressional district.

71                   The precincts to be audited, including any selected for an expansion of said audit, shall be  
72 chosen using a random selection process that is fully observable and which can be easily  
73 understood to be random by members of the public.

74                   The time and place of such random selection shall be publicly noticed at least ten days in  
75 advance of the election. The time and place of any expanded selection of precincts shall be  
76 publicly noticed not less than three days before it occurs. The drawing shall be open to one  
77 observer representing each candidate or referendum position that may be audited, who shall be  
78 positioned where s/he can meaningfully observe the process, and it shall be open to and be  
79 observed by the public. The selection shall take place as soon as possible after the close of the  
80 polls but after preliminary results and vote margins have been reported for auditable contests. In  
81 the event that preliminary precinct results are not published by a municipality by 48 hours after  
82 the election, such precincts shall be audited in addition to those randomly selected as specified in  
83 subsection (k) of this section. The precincts selected and the municipalities to which they belong  
84 shall be announced aloud as they are selected and shall be recorded in the order they are selected.

85 The precincts and the order in which they were selected shall be published on the website of the  
86 state secretary as soon as possible but not later than fifteen hours after the random selection takes  
87 place. Specific location information shall be added to this website no later than 24 hours after  
88 the drawing.

89 (d) Sequential selection of precincts to count for different statewide contests. The  
90 precincts chosen to audit statewide contests shall be recorded in the order in which they are  
91 drawn. The same sequence of randomly selected precincts may be used in order they were  
92 drawn for all statewide and Congressional contests. The minimum number of precincts that must  
93 be audited for each contest shall vary in accordance with the contest-wide Margin of Victory  
94 percentages as set forth in Tables One and Two in subsection (k) of this section. At the  
95 discretion of the state secretary, several contests may be grouped together and audited according  
96 to the highest number of draws required by the audit of any contest within that group.

97 (i) Cost. The cost of the audits for all statewide and federal offices shall be the  
98 responsibility of the Commonwealth of Massachusetts excluding the salaries of city and town  
99 employees for normal hours of work.

100 (j) Audit units other than precincts may be used for implementation of this audit if such  
101 are determined by the Secretary of the Commonwealth in consultation with experts in the field of  
102 election audits to be in general at least as efficient and efficacious as counting entire precincts.

103 (k) General protocol for random selection of precincts to be audited.

104 1. The audit shall follow a protocol whereby, for each audited race or ballot  
105 question, the chance that a precinct will be selected for inclusion in the random sample shall be  
106 proportional to the number of ballots cast therein, or, if the number of ballots cast cannot be  
107 provided in time, shall be proportional to the number of registered voters in each precinct as of a  
108 single specified date within the month preceding the election that shall be used for all precincts  
109 in the state.

110 2. A draw with replacement method shall be used, such that, once a precinct  
111 has been drawn it shall immediately be made available to be randomly selected again in  
112 subsequent draws. In such a case such precinct shall be counted manually only once but if  
113 tabulation is necessary it shall be included as many times as it is drawn.

114 3. The number of precincts to be selected randomly for hand counting shall  
115 be determined by the size of the margin between the winning candidate and the top losing  
116 candidate or between the Yes and No votes on a ballot question as set forth in the following  
117 tables. .

118 TABLE ONE: For statewide contests

119 draw 13 precincts draw when the margin is equal to or greater than 15%

120 draw 17 precincts when the margin is at least 12% but under 15%

121 draw 21 precincts when the margin is at least 10% but under 12%

122 draw 24 precincts when the margin is at least 9% but under 10%

123 draw 27 precincts when the margin is at least 8% but under 9%

124 draw 31 precincts when the margin is at least 7% but under 8%

125 draw 37 precincts when the margin is at least 6% but under 7%

126 draw 44 precincts when the margin is at least 5% but under 6%

127 draw 49 precincts when the margin is at least 4.50% but under 5%

128 draw 52 precincts when the margin is at least 4.25% but under 4.5%

129 draw 56 precincts when the margin is at least 4.00% but under 4.25%

130 draw 60 precincts when the margin is at least 3.75% but under 4.00%

131 draw 64 precincts when the margin is at least 3.50% but under 3.75%

132 draw 69 precincts when the margin is at least 3.25% but under 3.50%

133 draw 75 precincts when the margin is at least 3.00% but under 3.25%

134 draw 78 precincts when the margin is at least 2.90% but under 3.00%

135 draw 80 precincts when the margin is at least 2.80% but under 2.90%

136 draw 83 precincts when the margin is at least 2.70% but under 2.80%

137 draw 87 precincts when the margin is at least 2.60% but under 2.70%

138 draw 90 precincts when the margin is at least 2.50% but under 2.60%

139 draw 94 precincts when the margin is at least 2.40% but under 2.50%

140 draw 98 precincts when the margin is at least 2.30% but under 2.40%

141 draw 103 precincts when the margin is at least 2.20% but under 2.30%

142 draw 108 precincts when the margin is at least 2.10% but under 2.20%

143 draw 113 precincts when the margin is at least 2.00% but under 2.10%

144 draw 119 precincts when the margin is at least 1.90% but under 2.00%

145 draw 126 precincts when the margin is at least 1.80% but under 1.90%

146 draw 134 precincts when the margin is at least 1.70% but under 1.80%

147 draw 142 precincts when the margin is at least 1.60% but under 1.70%

148 draw 152 precincts when the margin is at least 1.50% but under 1.60%

149 draw 157 precincts when the margin is at least 1.45% but under 1.50%

150 draw 163 precincts when the margin is at least 1.40% but under 1.45%

151 draw 169 precincts when the margin is at least 1.35% but under 1.40%

152 draw 175 precincts when the margin is at least 1.30% but under 1.35%

153 draw 182 precincts when the margin is at least 1.25% but under 1.30%

154 draw 190 precincts when the margin is at least 1.20% but under 1.25%

155 draw 198 precincts when the margin is at least 1.15% but under 1.20%

156 draw 208 precincts when the margin is at least 1.10% but under 1.15%

157 draw 217 precincts when the margin is at least 1.05% but under 1.10%

158 draw 228 precincts when the margin is at least 1.00% but under 1.05%

159 draw 241 precincts when the margin is at least .95% but under 1.00%

160 draw 254 precincts when the margin is at least .90% but under .95%

161 draw 269 precincts when the margin is at least .85% but under .90%

162 draw 286 precincts when the margin is at least .80% but under .85%

163 draw 305 precincts when the margin is at least .75% but under .80%

164 draw 327 precincts when the margin is at least .70% but under .75%

165 draw 352 precincts when the margin is at least .65% but under .70%

166 draw 382 precincts when the margin is at least .60% but under .65%

167 draw 417 precincts when the margin is at least .55% but under .60%

168 draw 459 precincts when the margin is at least .50% but under .55%

169 draw 510 precincts when the margin is at least .45% but under .50%

170 draw 574 precincts when the margin is at least .40% but under .45%  
171 draw 656 precincts when the margin is at least .35% but under .40%  
172 draw 766 precincts when the margin is at least .30% but under .35%  
173 draw 919 precincts when the margin is at least .25% but under .30%  
174 when the margin is 0.2 % or less a full recount shall be conducted

175 TABLE TWO: For U.S. Congressional contests

176 draw 5 precincts when the margin is equal to or greater than 20%  
177 draw 7 precincts when the margin is at least 15% but under 20%  
178 draw 9 precincts when the margin is at least 12% but under 15%  
179 draw 11 precincts when the margin is at least 10% but under 12%  
180 draw 12 precincts when the margin is at least 9% but under 10%  
181 draw 14 precincts when the margin is at least 8% but under 9%  
182 draw 16 precincts when the margin is at least 7% but under 8%  
183 draw 22 precincts when the margin is at least 6% but under 7%  
184 draw 25 precincts when the margin is at least 5% but under 6%  
185 draw 28 precincts when the margin is at least 4.50% but under 5%  
186 draw 32 precincts when the margin is at least 4.00% but under 4.50%  
187 draw 35 precincts when the margin is at least 3.50% but under 4.00%  
188 draw 38 precincts when the margin is at least 3.00% but under 3.50%  
189 draw 42 precincts when the margin is at least 2.70% but under 3.00%  
190 draw 49 precincts when the margin is at least 2.30% but under 2.70%  
191 draw 57 precincts when the margin is at least 2.00% but under 2.30%  
192 draw 63 precincts when the margin is at least 1.70% but under 2.00%  
193 draw 67 precincts when the margin is at least 1.60% but under 1.70%  
194 draw 71 precincts when the margin is at least 1.50% but under 1.60%



195 draw 76 precincts when the margin is at least 1.45% but under 1.50%  
196 draw 79 precincts when the margin is at least 1.35% but under 1.45%  
197 draw 82 precincts when the margin is at least 1.30% but under 1.35%  
198 draw 85 precincts when the margin is at least 1.25% but under 1.30%  
199 draw 88 precincts when the margin is at least 1.15% but under 1.25%  
200 draw 91 precincts when the margin is at least 1.25% but under 1.15%  
201 draw 99 precincts when the margin is at least 1.00% but under 1.05%  
202 draw 109 precincts when the margin is at least 1.05% but under 1.00%  
203 draw 114 precincts when the margin is at least 1.00% but under .1.05%  
204 draw 121 precincts when the margin is at least .95% but under .1.00%  
205 draw 127 precincts when the margin is at least .90 but under 1.00%  
206 draw 143 precincts when the margin is at least .80% but under .90%  
207 draw 153 precincts when the margin is at least .75% but under ..80%  
208 draw 164 precincts when the margin is at least .65% but under .70%  
209 draw 176 precincts when the margin is at least .70% but under .75%  
210 draw 191 precincts when the margin is at least 60% but under .65%  
211 draw 209 precincts when the margin is at least 55% but under .60%  
212 draw 230 precincts when the margin is at least 50% but under .55%  
213 draw 255 precincts when the margin is at least .45% but under .50%  
214 draw 287 precincts when the margin is at least .40% but under .45%  
215 draw 328 precincts when the margin is at least .35% but under .40%  
216 when the margin is 0.3 % or less a full recount shall be conducted

217 1. A full statewide hand-count shall be conducted for any audited statewide  
218 contest with a Margin of Victory of 0.2% percent or less or U.S. Congressional race with a  
219 Margin of Victory of 0.3% or less.

220                   2. The state secretary, in consultation with persons with peer-reviewed expertise  
221 in statistical protocols and election auditing, may substitute another method of random selection  
222 and auditing if it is at least as transparent as the one described herein and at least as effective in  
223 ensuring that a full hand recount will occur whenever such a recount would reverse the  
224 preliminary outcome reported by the voting system.

225                   (l) Audit report: Comparison of precinct audit results to original reported results. Upon  
226 completion of the audit in each municipality the registrars shall record each contest audited in  
227 each precinct on a separate audit report form provided by the state secretary for easy comparison  
228 of the following:

229                   1. the audit tallies for each candidate or each yes and no vote and the blank votes  
230 and over votes as recorded on the official audit forms pursuant to paragraph (w) 4) of this section

231                   2. the election night tallies reported for each candidate or each yes and no vote  
232 and the blank votes and over-votes for the same ballots that were counted in the audit sample

233                   3. the differences between the audit tallies and the election night tallies for each  
234 candidate, yes and no question and blank votes ; the differences should be marked with "+" when  
235 the audit result is higher or with "-" when the reported result is higher.

236                   4. The number of votes for each contest for which voter intent is discernible but  
237 that are not marked by the voter according to the instructions provided to the voters under  
238 Section 48 of Chapter 54, that were identified under (w) (6) of this section. and any explanatory  
239 notes related thereto.

240                   5. Any additional notes on perceived causes for discrepancies as provided for in  
241 section 48 chapter 54

242                   (m) Reporting audit results. The registrars shall submit the official audit form or forms  
243 described in paragraph (l) of this section to the state auditor who shall make public the  
244 information in these reports as soon as practicable thereafter in both human- and machine-  
245 readable formats, such as a spreadsheet or comma-separated-value (CSV) file.

246                   (n) Comparison of contest-wide audit sample to preliminary contest-wide results. Upon  
247 receipt of the results of the manual audit counts from the audited precincts, the state auditor shall  
248 calculate the total number of votes for candidates, yes and no referenda positions, blanks votes  
249 and over-votes in each audited contest as recorded in the manual audit count pursuant to  
250 subsection (w) 4 and shall compare them to the corresponding totals reported directly after the  
251 election for the same candidates and ballot questions on the same ballots and shall publish any  
252 resulting discrepancies. The auditor shall calculate the error rate and determine whether further  
253 hand-counts are required pursuant to subsection (p) of this section.

254 (o) If after one or more expansions of the audit sample discrepancies in the expanded  
255 audit indicate a substantial possibility, as specified in subsection (p), of a different prevailing  
256 candidate or outcome than the outcome originally reported in the preliminary election night  
257 count, a complete hand count of all ballots cast on which the above contest or contests appeared  
258 shall be conducted. The results shall be reported within sufficient time to meet state and federal  
259 election deadlines for final certification but no winner shall be certified until 24 hours after all  
260 audits or recounts for that contest have been completed.

261 If there is a successful petition for a recount pursuant to section 135 of chapter 54 the  
262 audit counting for that contest shall and cease. The state secretary shall determine whether any  
263 ballots already counted in the audit need to be recounted.

264 (p) The error rate for discrepancies shall be calculated as follows:

265 The Error Rate equals the vote share as reported on election night for the same ballots  
266 that were counted in the audit sample for the first place candidate minus his/her vote share as  
267 counted by hand in the audit sample subtracted from the vote share as reported on election night  
268 for the same ballots that were counted in the audit sample for the second place candidate minus  
269 his/her vote share as counted by hand in the audit sample.

270 This may also be expressed as  $(E2/EO - A2/AO) - (E1/EO - A1/AO)$  where

271 E1 is Election night vote count for the first place candidate for all ballots selected in the  
272 audit sample

273 E2 is Election night vote count for the second place candidate for all ballots selected in  
274 the audit sample

275 A1 is Audit sample hand-count for the first place candidate

276 A2 is Audit sample hand-count for the second place candidate

277 EO is All ballots cast for the office as reported by the preliminary election results

278 AO is All ballots cast for the office as reported by the audit hand counts

279 "Candidate" here means a person or a Yes or No for a referendum vote.

280 A negative error rate indicates that the winning margin decreases.

281 A positive result confirms the election outcome.

282 Either or both of the following discrepancies in the initial audit sample shall trigger  
283 further hand counts:

284 1. If the contest-wide error rate between the reported election night results and the  
285 hand counted audit sample reaches 20 % of the election night Margin of Victory and/or

286 2. If the difference in any one precinct between the reported election night results and  
287 the hand counted audit results reaches 50 votes an expanded random sample shall be selected and  
288 counted that requires three times the number of draws as did the initial sample.

289 Otherwise the audit counting may be deemed to be complete.

290 Either or both of the following discrepancies in the expanded audit sample just described  
291 shall trigger further hand counts:

292 1. If the contest-wide error rate between the reported election night results and the  
293 second hand counted-audit sample reaches 30% of the election night victory Margin of Victory,  
294 and/or

295 2. If the difference in any four precincts between the reported election night results and  
296 the hand counted audit results reaches 50 votes a full 100% recount shall be conducted.

297 Otherwise, at the discretion of the state auditor, the audit counting may be deemed complete.

298 Notwithstanding this, at the discretion of the state auditor, a new audit sample may be selected  
299 and counted that requires at least three times as many draws as the initial sample, in lieu of a full  
300 recount. In such a case, if the contest-wide error rate between the newly expanded combined  
301 audit sample and the preliminary election night results reported for the same ballots reaches 50%  
302 of the election night victory Margin of Victory a full hand recount shall be conducted.

303 Otherwise, at the discretion of the state auditor, the audit counting may be deemed complete.

304 (q) Vote of record. If there is a discrepancy between a manual count and originally  
305 reported tallies, where the original results were obtained using electronic equipment, the manual  
306 count of the official paper ballots shall be the official vote of record.

307 (r) Archiving audit results. The results of audits and hand-counts, as well as the  
308 corresponding data for the originally reported tallies, shall be made publicly available on a  
309 precinct-by-precinct basis both in hardcopy and in electronic file format, and shall be archived  
310 indefinitely, but for no less than sixteen years, in order to facilitate research and to provide for  
311 continuous improvement of election procedures.

312 (s) Analysis of discrepancies. Discrepancies between the hand-counted audit and the  
313 original vote tally shall be analyzed in consultation with other experts in the field of election  
314 audits to ascertain their cause. The state secretary shall oversee the analysis and shall publish  
315 and make available online the findings within 180 days.

316 (t) Analyzing discrepancies by machine model. Whenever the difference between the  
317 hand-counted audit and the originally reported tally is more than one percent for any particular  
318 machine model, the discrepancy between the hand-counted audit and the original vote tally shall

319 be analyzed to ascertain the cause of the discrepancy and to discern patterns, if any, between  
320 counts by each machine model and hand counts. The state secretary shall oversee the analysis  
321 and shall publish and make available online the findings within 180 days.

322 (u) Training and deployment of audit personnel. Training for audit personnel shall be  
323 based on uniform written and visual training materials issued by the state secretary. In  
324 consultation with municipal clerks or their representatives the state secretary shall develop a  
325 plan for flexibly and timely deploying trained audit personnel to perform audits in precincts  
326 selected for audits in various areas in the state. Personnel may be drawn from pools of workers  
327 within certain areas or districts and may be deployed sequentially to perform audits in various  
328 locations.

329 (v) The state secretary shall promulgate procedures to carry out this act and shall solicit  
330 public comment for at least 45 days. The secretary shall revise such procedures as necessary to  
331 respond to public comment and shall post final procedures on the state website at least 30 days in  
332 advance of each election to which they apply. These procedures shall be revised, with  
333 opportunity to comment, periodically as needed, but at least every four years.

334 Written procedures shall

335 1. describe the random selection process for precincts to be audited

336 2. set up a mechanism for municipalities to inform the state secretary, in advance, of  
337 the exact location they will provide if any of their precincts are selected for audits and for  
338 informing municipalities and candidates when they have been selected for an audit

339 3. set up a mechanism to coordinate the times of audits after precincts have been  
340 selected and to report such to the public

341 4. coordinate audits and recounts for optimum efficiency and to avoid duplicate  
342 counting when that is desired and possible

343 5. ensure secure multi-partisan chain of custody for all ballots and election equipment,  
344 with signed access, to prevent single person or single party access to any ballots pertaining to an  
345 election until after all audits, recounts and legal challenges have been completed

346 6. set standards for tamper evident seals for elections, audits and recounts

347 7. set standards for tamperproof containers and for their secure storage

348 8. describe ballot counting and sorting methods that require that each counter, sorter or  
349 recorder to be checked by a person of an opposing party

350 (w) Audit procedures. Audits shall be conducted publicly in a similar manner to the  
351 procedures for counting ballots in Section 105 of Chapter 54. In addition, audits shall follow  
352 these procedures:

353 1. each precinct audit will be presided over by two registrars of voters from the two  
354 leading political parties who shall examine such election records as they deem necessary  
355 including but not limited to spoiled and unused ballots, absentee ballots and envelopes,  
356 provisional and overseas ballots as available, and the poll register;

357 2. observers representing candidates and ballot questions shall be positioned and may  
358 move about if needed so that they can clearly and comfortably observe every aspect of the  
359 proceedings, including marks on ballots, seals, signatures, documents and forms pertaining to the  
360 audit and to the election.

361 3. upon commencing an audit of its contents the registrars shall examine the signatures  
362 and the seals securing ballot containers before they are opened and compare them to the  
363 signatures and seal numbers recorded after close of polls in the Precinct Log described in  
364 paragraph (y) 3 of this section and determine whether either have been disturbed and if so shall  
365 record this in the Precinct Log;

366 4. audit personnel shall count and record the total number of ballots cast at the precinct  
367 on Election Day, including the unused and spoiled ballots, and count the total votes, blank votes,  
368 over-votes and total write-ins for each candidate and the Yes and No votes and blanks for each  
369 ballot question on those ballots and record such on official forms provided by the state secretary;

370 5. audit personnel shall compare the information on the signed machine tally slips  
371 produced at the precinct at close of polls to the vote totals report submitted to the state secretary  
372 as required in subsection (d) 1) of this section and shall record discrepancies, if any, on the  
373 appropriate audit form ;

374 6. voter intent shall be the standard for counting votes;

375 7. in order to assist with analysis of the error rate, in jurisdictions where votes were  
376 counted initially by an electronic voting system, an additional record shall be made on the audit  
377 report form of the number of votes for which voter intent is discernible but ballots were not  
378 marked according to the instructions provided to the voters under Section 48 of Chapter 54;

379 8. when they have been counted all the ballots shall be enclosed in envelopes or  
380 containers, marked with the name of the city or town, ward, if any, and precinct and each  
381 envelope or container shall be sealed with a secure tamper-evident seal provided therefor, and  
382 the number thereof shall be recorded in the Precinct Election and Audit log.

383 9. the registrars or three members of the audit team shall sign and date an affixed seal  
384 designed so that it cannot be removed without damaging the signatures.

385 (x) Audit personnel shall not work with the preliminary tally numbers at hand but shall  
386 record and sign their own hand-counts on forms provided therefor by the state secretary. If any  
387 subsequent counts are taken to clarify perceived errors the final audit report shall contain the  
388 results of all counts, the order in which they were performed, the perceived error/s and an  
389 explanation thereof.

390 (y) Precinct Election and Audit Log

391 A log book shall be maintained by hand at and for each precinct in which shall be  
392 recorded various items pertaining to elections and to their audits, if any. Items to be recorded  
393 therein include:

394 1) the model and serial numbers of all voting and counting devices used, if any,  
395 signed by two election officials

396 2) the numbers printed on the seals used to close containers on election night,

397 3) the numbers printed on seals used to close containers after any audit or recount,  
398 as set forth in paragraph (e) 3 of this section,

399 4) the printed names and signatures of those signing seals and tally slips on  
400 election night,

401 5) the printed names and signatures of those signing seals and tally slips after an  
402 audit or recount,

403 6) any problems or anomalies encountered during the election, or any audit or  
404 recount

405 7) any protests made by those conducting the audit or any citizen or candidate  
406 observer present pertaining to the conduct of the audit along with the names and contact  
407 information of such persons.

408 The Log shall be kept in a secure location before during and after the election but shall be  
409 available for public inspection and copying under the supervision of the municipal clerk.

410 (z) Candidates. Candidates and referenda sponsors in contests that may potentially be  
411 audited must be informed no less than three days before the election of their right to have their  
412 own observers present at the audit of their contest if they choose.

413 This act shall take effect for the earliest applicable election which occurs one year after  
414 its enactment. Pilot audits may be conducted in the interim.