★ VIRGINIA ★
DEPARTMENT *of* ELECTIONS

Risk Limiting Audit

MANUAL

VIRGINIA DEPARTMENT OF ELECTIONS

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1. Introduction

1.1 Background on Risk Limiting Audits (RLA) in Virginia

1.1.1 Definition of an RLA

A Risk Limiting Audit (RLA) is a type of post-election audit that utilizes statistical methods and a manual review of paper ballots to confirm that the electronic voting system accurately reported the correct outcome of an election. RLAs analyze a random sample of hand-counted ballots to confirm election results. If the margin of an election is wide, fewer votes are audited; if the margin is narrow, more votes are audited until enough evidence can confirm the results of the contest.[1]

There are two RLA methods used in the Commonwealth of Virginia: *ballot-polling* and *batch-comparison*. Ballot-polling audits manually review a randomly selected, sufficiently large sample of ballots to determine if the overall outcome of an election contest was correctly reported. Batch-comparison audits manually review randomly selected physical batches of ballots, such as those cast in one precinct, and compare those results with corresponding machine counts.[2] In Virginia, the Virginia Department of Elections (ELECT), in accordance with the procedures prescribed by the State Board of Elections (SBE), has traditionally utilized the *ballot-polling* method to conduct statutorily required RLAs.

Since 2022, local electoral boards (EB) have the option to apply for RLAs for contested races that are wholly contained within the jurisdiction of the EB. Local electoral boards may choose to utilize either the ballot-polling or batch-comparison method for conducting their RLA, subject to the approval of the SBE.

1.1.2 History of RLAs in Virginia

RLAs provide strong statistical evidence that the declared winner of a contest received the most votes. In 2017, the Virginia General Assembly passed legislation that amended the Code of Virginia to include RLAs of ballot scanner machines in use in the Commonwealth and the changes went into effect on July 1, 2018**.** During the 2022 General Assembly Session, §24.2-671.1 was repealed and replaced with §24.2-671.2, which took effect on July 1, 2022. With these changes, the Code now requires that RLAs be performed by the EBs and general registrars (GR) under the supervision of ELECT and in accordance with the procedures prescribed by the SBE.

This document outlines the SBE procedures and includes guidance on the following:
- Randomly selecting contested races and determining the risk-limit;

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[1] *See* National Conference of State Legislatures, Risk-Limiting Audits
[2] *Id.*

- Preparing for an RLA, including guidelines for organizing ballots, selecting venues, and securing appropriate materials by EBs and GRs;
- Ballot custody, accounting, security, and written record retention procedures that ensure a complete and accurate collection of cast ballots from which samples are drawn;
- Hand counting of the audited ballots;
- Methods for conducting the RLA; *and*,
- Ensuring transparency and understanding of the process by participants and the public, including guidelines for direct observation by members of the public, representatives of the candidates involved in the RLA, and representatives of the political parties.

2. RLA Basics

2.1 RLA Selection and Notification Process

Pursuant to § 24.2-671.2, RLAs must be conducted **before** a race has been certified.[3] ELECT must ensure that an RLA is conducted for at least one randomly selected contest each year. The Code of Virginia provides the contests eligible for selection for an RLA depending on the election cycle, as outlined in §24.2-671.2(C) and illustrated in the graphic from 2022 below:

Random U. S. House of Representatives Race • 2022

Random General Assembly Race (Senate or HOD)* • 2023

Cycle repeats in 2026

**Starting in 2024:* In any year where there is not a contest for statewide office, a RLA of at least one randomly selected contested race for local office, including constitutional offices, must be held.

Statewide Contest (President or US Senator) *and* US House of Representatives Race*/** • 2024

Starting in 2023: a contest approved by two-thirds of the SBE may be selected to participate in a RLA to ensure that every locality conducts an audit at *minimum* once every five years.

Random General Assembly Race will be audited*/** • 2025

Additionally, §24.2-671.2(D) allows EBs to *request* a risk-limiting audit of a contested race within the EB's jurisdiction. Using an SBE-671.2(D) Form: Request for Risk Limiting Audit, a locality may submit their request to the SBE for approval.[4] Examples of races wholly contained within a locality's jurisdiction *may* include but are not limited to: mayoral, school board, city council, clerk of court, treasurer, or sheriff. Localities that have portions of House of Delegate, State Senate, U.S. Senate, or U.S. House of Representative races located within their localities are not able to request to audit just their portions of those races. Section 2.1.1 of this manual details how to apply for an RLA.

At least once every five years, every jurisdiction must participate in at least one RLA of a contest in its jurisdiction, either by random selection by the SBE or by opting into their own contest. As

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[3] *See* Code of Virginia, § 24.2-671.2. Risk-limiting audits
[4] *See* ELECT, SBE-671.2(D) Form

of 2022, the SBE may, by two-thirds majority vote, direct that a locality conduct an RLA of a contest within its jurisdiction. The SBE defines participation in an RLA by the uploading of a ballot manifest. Every locality in the Commonwealth participated in a ballot-polling RLA of the 2020 Presidential and 2021 U.S. Senate races, which is explained in greater detail in the March 31, 2021 Risk-Limiting Audit Report found on ELECT's website.[5]

> **Applying for an RLA and the Yearly Random Selection of Races**
> If a locality opts for an RLA of a race wholly contained within its jurisdiction, it is not exempted from the required yearly, randomly selected RLA.

2.1.1 Applying for an RLA of a Local Contest

An EB may request SBE approval for an RLA of a contested local race wholly contained within the EB's jurisdiction. The SBE has promulgated both a regulation to guide EBs in selecting a race for an RLA (see Appendix) as well as the SBE-671.2(D) Form that localities must use to request a race for an RLA (see Appendix). As of March 2022, EBs may choose between utilizing the *ballot-polling* or *batch-comparison* method of conducting a Risk-Limiting Audit.

An electoral board must cast a majority vote at a public meeting to request an RLA for a particular contested local race, wholly contained within the jurisdiction of the electoral board. Further, an electoral board must sign and complete the current SBE-24.671.2(D) Form and identify the local race(s) subject to the requested RLA. All board members should sign and date the form. Once completed, the secretary of the electoral board must send the form to ELECT via the locality's Elections and Registration Specialist. An ideal time for electoral board members to select a race for audit is during the canvass. These forms must be submitted to ELECT no later than close of business the day prior to the publicly noticed RLA SBE meeting (the date will vary depending on the election cycle.)

The SBE will grant an RLA request if the form is properly completed, all statutory requirements are met, and the request is submitted in time. Finally, the regulation specifies that, as needed, the SBE will grant a two-week extension to an electoral board's certification deadline under § 24.2-671 to accommodate the completion of the RLA.[6]

2.1.2 Key Factors

When considering applying for an RLA of a race wholly contained within the jurisdiction of the electoral board, ELECT recommends considering several aspects:

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[5] *See* ELECT, Risk-Limiting Audit Report, March 31, 2021
[6] *See* Code of Virginia, §24.2-671 Electoral board to Meet to Ascertain Results; conclusiveness of results

The SBE gives EBs the option to choose between the use of <u>two RLA methods</u> for applications submitted pursuant to §24.2-671.2(D): ballot-polling or batch-comparison.

<u>Ballot-polling</u> typically requires the smallest number of ballots to produce strong evidence that a reported outcome was correct. This method has been used by the Commonwealth since RLAs were first required by statute. It is the easiest method for the public to observe the interpretation of ballots. A ballot-polling audit is similar to an exit poll, where a statistically significant number voters are sampled to make inferences about the whole electorate. In the case of ballot-polling RLAs, a statistically significant number of ballots are sampled to infer the accuracy of the machines used in the election.

<u>Batch-comparison</u> is an audit where batches, such as precincts, are randomly selected, counted, and compared to the voting system's count. This method tends to use the most ballots of either method, causing a greater workload than ballot-polling and the need for more manpower and resources. Additionally, when Arlo, the RLA software, is set up for a batch-comparison audit it tends to select, although random, the precincts with more ballots. Localities should expect to review over a thousand ballots.

> **Tip**
> You can use the Arlo Planner Tool to create an *estimate* of the number of ballots or batches that may be required to conduct an RLA for your race. The Arlo Planner Tool can be found here: Arlo Planner Tool, by VotingWorks. This tool is available to the public and does not require a login to access.

AN EXAMPLE OF SAMPLE SIZES FOR BOTH METHODS

ELECT estimated the number of ballots that may have needed to be sampled for the 2022 General Election RLA, U.S. Congressional District 9, using both the ballot-polling method and the batch-comparison method, with the risk limit set to 10%, to provide a real-world example of the amount of work required for each method. This race had 248,792 ballots cast with a margin of 47% between the candidate with the most votes and the candidate with the second most votes.

Batch-comparison Estimate for District 9	Ballot-Polling Estimate for District 9
7 Batches or ~5,600 total ballots*	60 ballots

TIME

Pursuant to the Code of Virginia §24.2-671.2, ELECT is required to oversee that certain RLAs are done after the general election but before certification. The SBE announces those races, as well as approved applications requesting a local RLA, during an SBE meeting, typically held the second Wednesday following the November General Election. This creates a very tight timeline for the RLA, which must be completed before certification, that overlaps with the Thanksgiving holiday. This means localities will have 9.5 business days to complete the RLA process during a general elections.

This timeline may be further compounded during a November general election by choosing a *different* method than the SBE for an RLA of a local contest. For example, the SBE may choose to conduct an RLA using the ballot-polling method in a jurisdiction. If an EB chooses to utilize a batch-comparison method for a local race, then the EB would be running two different types of RLAs at the same time, which may take additional time to complete.

If an EB applies for an RLA of a primary, the timeline is even more compressed. For a June primary, an electoral board will have 3 business days from the time of approval of the RLA to the date for the SBE to declare a nominee. This timeline may also include the 4th of July, depending on the year. Given these time constraints, an RLA of a primary, while not prohibited by statute, is not recommended.

STAFFING

As part of the RLA, EBs must recruit audit review boards (see section 3.4 for more information about audit review boards). An audit review board is a two-person team assigned to review ballots and record a hand tally of the results. The required number of audit review boards is

based on the number of batches that are needed for an RLA. However, when a single batch contains a large number of ballots, additional audit review boards may be assigned to the batch to tally the ballots more effectively and efficiently. For example, a batch-comparison method RLAs must have batches that are the size of your precincts. Your locality may have only a few batches, but those batches may be large based on the number of ballots cast in a precinct. Thus, more audit review boards may be needed to tally those ballots effectively and efficiently.

- On average, an audit review board can pull 20-25 ballots per hour utilizing the ballot-polling method. If many ballot containers must be retrieved, this average decreases to about 15-20 ballots per hour. It may take longer to locate a specific ballot within a stack of ballots utilizing the ballot-polling method, which accounts for the additional time.
- On average, an audit review board utilizing the batch-comparison method could approximately audit about 510 ballots per hour. Auditing 100,000 ballots for one contest would take approximately 195 hours.[7] Batch-comparison audit review boards can work more quickly because they are not searching for specific, random ballots but instead working through all ballots in a "batch". That being said, they have substantially more ballots to review.

COST

As noted above, audit review boards will need to be recruited to process the ballots or batches that will be hand counted. Each audit review board consists of two individuals; if more ballots or batches are sampled, more people will need to be compensated to complete the RLA process on time.

2.2 RLA SBE Meeting

The SBE will meet electronically on the second Wednesday after a general election to select contests, set the "risk limit", and determine the random seed number for the RLA.

2.2.1 Selected Contests

ELIGIBILITY

For those contests eligible for an RLA as designated by the year in §24.2-671.2(C), the SBE will only consider races with margins greater than 1%.[8] All races that meet that threshold will be placed in the selection pool.

An EB may apply for an RLA pursuant to §24.2-671.2(D). The EB must fill out an SBE-671.2(D) Form, and the contested race must qualify pursuant to the criteria under 1VAC20-60-80.[9] If the

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[7] *See* Pilot Implementation Study of Risk-Limiting Audit Method in the State of Rhode Island.
[8] *See* Administrative Code of Virginia, 1VAC20-60-80.
[9] *See* Administrative Code of Virginia, 1VAC20-60-80.

SBE-671.2(D) Form is properly filled out and the contested race qualifies under 1VAC20-60-80, then the SBE will approve the application. These contests will not be placed in a selection pool.

For those contests eligible for an RLA in a given year under 24.2-671.2(C), the SBE Chair or designated representative will randomly draw one race(s) to audit from this pool. Before the random selection takes place, a member of ELECT staff will explain the selection method. Examples of random selection methods may include drawing a contest from a bowl or rolling dice to determine the audited contest. The selection will be held and recorded during a public meeting to ensure that the chosen race is completely random.

2.2.2 Setting the Risk Limit

A *risk limit* is the maximum chance that the RLA will fail to correct an incorrectly reported outcome. For example, a 10% risk-limit means that there is a 90% chance that the RLA will correct an incorrect outcome. To date, every RLA in Virginia has used a 10% risk-limit. A 5% risk limit is also common in other jurisdictions, though has yet to be tested in Virginia. The SBE will set the *risk limit* of the RLA following industry best practices and will announce the risk limit of each RLA at the virtual SBE RLA meeting.

2.2.2 Generating the Random Seed Number

For each audited race, the RLA software uses a 20-digit random seed number to select ballots for retrieval. A random seed number specifies the starting point of a computer-generated random sequence of numbers. The 20-digit random seed number is generated at the SBE RLA meeting.

To create this random number, the SBE Chair or designated representative(s) rolls twenty, ten-sided dice (numbered zero through nine), one time each. As each dice is rolled, the resulting number is recorded on a whiteboard. Any person may be designated by the SBE Chair to roll the dice; it may be done by one person or multiple people.

If there are applications approved by the SBE from electoral boards pursuant to Title 24.2-671.2(D), a new, additional 20-digit seed number will be generated via the process explained above.

The 20-digit number generated by this activity will be inputted into the RLA software by the RLA *Administrator* on ELECT's staff. Once this number is inputted, the auditing software will randomly select and generate a list of ballots to be retrieved based on the sample size. For an illustrated example of this process, please review the *Random Seed Number Generation* video on ELECT's YouTube channel.[10]

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[10] *See* ELECT YouTube Channel, Random Seed Number Generation.

3. RLA Preparation

3.1 Overview

Due to the compressed timeline for RLAs, localities can take actions before Election Day to set themselves up for a successful RLA should they be chosen or approved by the SBE, including:[11]

- Determining RLA location;
- Scheduling the public meeting;
- Recruiting Audit Review Boards; *and,*
- Reviewing ballot accounting and storage practices.

3.2 Determining the Location of the RLA

A locality must consider a space for the RLA that can accommodate the public and that is ADA-compliant. The facility where an RLA takes place must also have an internet connection to download and print retrieval lists, placeholder pages, RLA board credentials, and labels.

If only a few ballots are required for an RLA, it may be possible to conduct the RLA at the courthouse. If more space is needed or if no workspace is available, the RLA may take place in another suitable location, such as: the GR's office, a library, a firehouse, a school, etc. Localities should work with their Clerks of Court to consult on the physical space of the RLA.

3.3 Scheduling the Public Meeting

Pursuant to § 2.2-3707[12] and §24.2-671.2(G), an RLA must be conducted as a public meeting. An EB and the GR shall conduct an RLA within their jurisdiction. Once the electoral board has selected a location for the RLA, it must provide the location to ELECT; ELECT will select the date and time for the RLA to begin. ELECT will publish the list of contested races along with the date, time, and location of the RLA as soon as practical. Local party chairpersons must also be notified of the RLA public meeting.

Additionally, at least one member of the electoral board representing each party must participate in, and be present for the duration of, the RLA. [13] In addition to electoral board members and the GR, meeting attendees may include:

- Clerk of Court
- Audit Board members;
- General public;
- Representatives from political parties;
- Candidates;

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[11] *See* the Appendix for an example of the timeline for the November General Election.

[12] *See* Code of Virginia, § 2.2-3707. Meetings to be public; notice of meetings; recordings; minutes,

[13] *See* Code of Virginia §24.2-641.2, Risk-Limiting Audit

- Campaign staff; *and*,
- Local party chairs.

Localities should plan for at least one full day to conduct the RLA. As a best practice, it is recommended that the public meeting begins in the morning so the afternoon may be free if a second round of ballot retrieval is required. Since the sample is random, there is no way to predetermine the number of ballots a locality must retrieve.

3.4 Recruiting RLA Audit Review Boards

An *Audit Review Board* is a two-person team that retrieves specified ballots, records the results of the ballot, and inputs the results into the ballot software. GRs and/or the electoral board determine the audit board(s). Audit board members can be: staff, officers of election, electoral board members, GRs, or representatives from each party and/or candidates. Audit boards do not have to declare a party affiliation. As a best practice, it is recommended the audit board consist of one Democrat and one Republican to ensure balanced representation.

The number of *Audit Review Boards* is based on the number of ballot storage containers that must be opened and not on the number of ballots to be retrieved. The average numbers for both the ballot-polling and the batch-comparison method are provided below.

- Ballot-polling: On average, an audit board can pull 20-25 ballots per hour. If many ballot containers must be retrieved, this average decreases to about 15-20 ballots per hour.
- Batch-comparison: an audit board could audit about 510 ballots per hour. Auditing 100,000 ballots for one contest would take approximately 195 hours.[14]

Since localities retrieve random ballots when utilizing the ballot-polling method, it can take audit boards longer to locate the appropriate ballot in a stack of ballots, which results in fewer ballots being retrieved per hour. Whereas in the batch-comparison method, every ballot in a stack is counted in a precinct. While this may be quicker than locating random ballots, more ballots need to be reviewed using the batch-comparison method.

3.5 Reviewing Ballot Accounting and Storage Practices

When preparing for an RLA, it is a good time to review ballot accounting practices, which include ballot tracking, ballot reconciliation, and chain of custody forms and procedures. Ballot accounting forms the basis of a ballot manifest by providing the number of ballots in an envelope/box/container (ballot manifests are explained in greater detail for *ballot-polling* in section 4.3 Creating a Ballot Manifest and for *batch-comparison* in section 5.2.1 Creating a Ballot Manifest.) It is imperative that the ballots remain organized and clearly marked within

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[14] *See* Pilot Implementation Study of Risk-Limiting Audit Method in the State of Rhode Island

the contents of the box. It is important to consider both methods when storing your ballots, having a strategic plan for organizing ballots can save a lot of time when conducting an RLA.

ELECT has designed a sample chain of custody form to document the control, transfer, and disposition of ballots during an RLA. Localities may choose to utilize this form or design their own to suit their specific needs. This sample form can be found in Forms Warehouse under the RLA section.

3.6 Suggested Supplies
While not required, the following is a list of helpful supplies for a successful RLA:
- Table and chairs for each audit board;
- Bright colored paper;
- Bright-colored removable labels;
- Tally sheets;
- Pens;
- Rubber fingers;
- Device to open containers;
- Materials to reseal containers, if necessary;
- Device with Wi-Fi/cellular to enter ballot tallies (laptop, smartphone, etc.); *and*,
- Printer.

4. The Ballot-Polling Method of the Risk-Limiting Audit

4.1 Overview

Once a locality is selected for an RLA or the electoral board has requested an RLA, it must do the following:

- Notify the public and participants identified in section 3.2 and 3.4 of this manual;
- Submit an ELECT 659-Request to Inspect Sealed Election Material form;
- Create and upload the ballot manifest; *and,*
- Gather supplies.

For the purpose of this manual, a batch is a documented set of ballots created by a voting system, an officer of election, or other election official.

4.2 Submitting an ELECT 659-Request to Inspect Sealed Election Material Form

Pursuant to Va. Code § 24.2-659, a locality must receive permission from the ELECT to unseal ballots cast on Election Day for a post-election audit. Localities are required to submit an *ELECT 659-Request to Inspect Sealed Election Material* form to obtain permission. The form is submitted to ELECT for signature authorization and then presented to the Clerk of the Circuit Court to access ballots from the election. This form may be found in Forms Warehouse under the RLA section.

4.3 Creating a Ballot Manifest

A *ballot manifest* is a two-column Excel spreadsheet created by localities that includes a list of the "Batch Name" (Column A) and the "Number of Ballots" (Column B).

	A	B
1	Batch Name	Number of Ballots
2	Precinct 1	301
3	Precinct 2	302

The ballot manifest creates an inventory of every ballot cast in a locality. Depending on the size of the locality, a ballot manifest should take one hour or less to complete. As a best practice, localities are encouraged to build their ballot manifest as they go. In order to select random ballots or batches, *all* participating localities must upload a ballot manifest before the audit can begin.

> **Note about Performing Both a Ballot-polling RLA and a Batch-comparison RLA**
> In the event that your locality has to perform *both* a ballot-polling RLA and a batch-comparison RLA, pay attention to the design of your ballot manifest for each method. While the ballot manifest for one may be used for the other, the batches listed in the ballot manifest _**must**_ be the same as your precincts. For example, if 100 ballots were cast in Precinct 1, then Batch 1 would have 100 ballots. This is not only for consistency but also so that the candidate by batch file matches with the ballot manifest for a batch-comparison method RLA, discussed in 5.2.2 Creating a Candidate Total by Batch File. You may also choose to create two separate ballot manifests for each separate method for greater ease in locating ballots.

Batch information can be found on Ballot Record Reports or on Label #3. ELECT encourages localities to have discussions with their Clerk of Court prior to the election. During these conversations, localities should work with their Clerk of Court to discuss storage limitations, the location of the RLA, and chain of custody concerns.[15]

The number of ballots in each batch should be verified independent of the tabulator. The information to create a ballot manifest may be found in the following places:
- Ballot Record Reports from precincts
- Inventory the ballot boxes at the Clerk of Court. Label #3 should contain the information needed.

- Electronic Pollbook Data
  - *Reminder:* Check Incident Reports or Officer of Election notes for occurrences of failing to check-in voters. This will allow the EPB number to be increased to the correct number.)

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[15] *See* Democracy Fund, Knowing It's Right, Part Three, Planning and Conducting a Risk-Limiting Audit Pilot, Jennifer Morrell, June 2020.

- VERIS data from the Final Absentee Report
- Calculating the Number of Ballots in a container by weight.
  - If the number of ballots in a specific container is unknown, a locality can perform a simple equation to approximate the number of ballots in each box. To do this, each container box must be weighed. The weight of each box is added together. The total of this sum is then divided by the total number of ballots cast. The result of this equation is then multiplied by the weight of the corresponding box to get the number of ballots (see graphic.)

Calculating Ballots by Weight

25 lbs   8972   30lbs   10766   22 lbs   7896
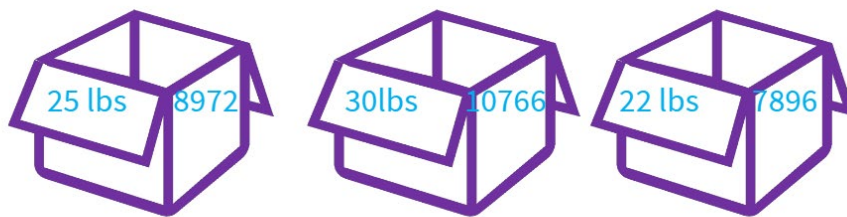
Total Weight = 77lbs

Total ballots from vote history/credit = 27,634

27634/77 = 358.88

Box 1 = 25lb * 358.88= 8972
Box 2 = 30lb * 358.88 = 10766
Box 3 = 22lb * 358.88 = 7895

Helpful Tips and Reminders:
- All types of ballots are included (in-person, mail-in, provisional, etc.) in the manifest.
- Localities may label the "Batch Name" in any way that helps keep them organized (example: Precinct 101, Box 26, Container 8, etc.). Batch names are unique to each locality.
- Boxes/Containers/Envelopes that contain large amounts of ballots may be grouped into smaller units to ease the physical challenges of conducting the RLA, as long as it is reflected in the batch name (example of "batch names": Precinct 101 Unit 1; Box 26 Unit 2; Container 8 Unit 3 etc.).
- Keep the spreadsheet simple; avoid color coding and bold, so the ballot auditing software can read it.
- Run a quick equation in excel to check that all ballots have been accounted for in a locality. After performing this check, make sure to **delete** this sum before uploading the manifest into the RLA software.
- Build a ballot manifest as the ballots are being stored after an election in preparation for future RLAs.
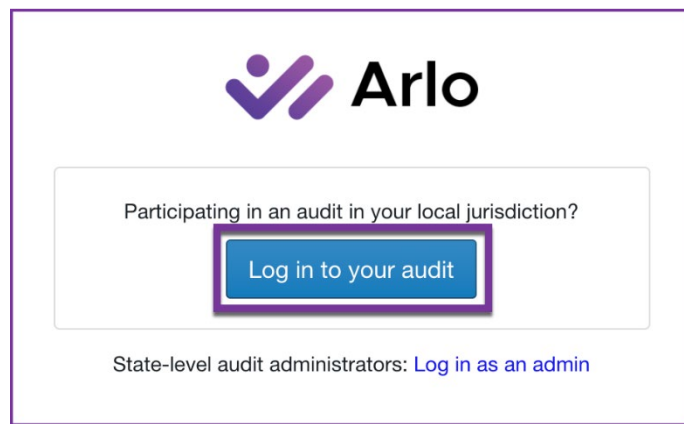
- ELECT staff is available to troubleshoot specific challenges and provide support.
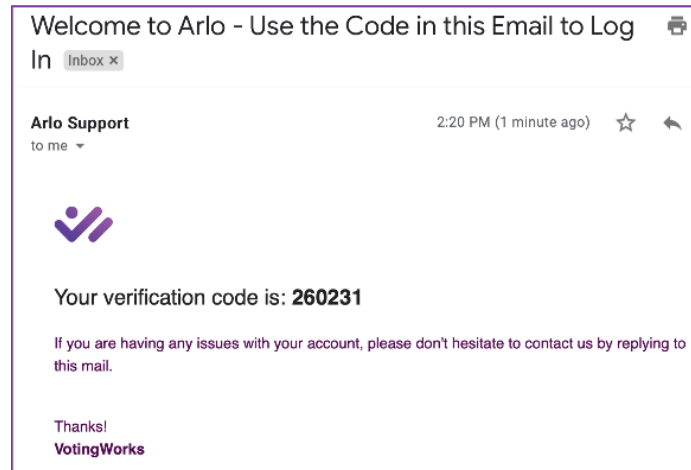
4.4 Uploading a Ballot Manifest

Once the ballot manifest is created, it is saved as a **.csv file (**CSV UTF-8, CSV (Macintosh) and CSV (MS-DOS) are all acceptable) and uploaded into the auditing software. The RLA software lets participants know if a mistake has been made when creating or uploading the manifest by generating an error message. Mistakes may include: empty rows, incorrect file formats (the manifest must be saved as a .csv file), or ballot totals in any rows or columns. All ballot manifests must be submitted by all participating localities to start the RLA.

Once the software receives all the ballot manifests, it will compile them into one large ballot list. This master list will be used to select random ballots across participating localities. Ballot manifests must be uploaded no later than the Thursday after the SBE's random draw. Once all ballot manifests are uploaded the RLA can begin. Detailed instructions, on how to upload a ballot manifest into the current auditing software, are listed below:

1. Using Google Chrome or Safari as your browser, go to this link: https://arlo.voting.works
2. Click Log in to your audit.

3. Enter your email address.
4. Check your email for a new email with the subject "Welcome to Arlo - Use the Code in this Email to Log In" - enter the verification code.

Welcome to Arlo - Use the Code in this Email to Log
In Inbox ×

Arlo Support   2:20 PM (1 minute ago) ☆ ↩
to me ▾

Your verification code is: **260231**

If you are having any issues with your account, please don't hesitate to contact us by replying to
this mail.

Thanks!
VotingWorks

5. Click on the button with the locality name.

Sample County

6. Click the Browse button and navigate to the ballot manifest .csv file that was created.
Once selected, click Upload File.

The audit has not started.
Ballot manifest not uploaded.

Audit Source Data

Ballot Manifest

Click "Browse" to choose the appropriate Ballot Manifest file from your computer. This file should be a comma-separated list of all the ballot boxes/containers used to store ballots for this particular election, plus a count of how many ballot cards (individual pieces of paper) are stored in each container.

(Click here to view a sample file in the correct format.)

Select a CSV...   Browse

Upload File

7. When the upload is successful, a message will appear at the top of the screen that says "Ballot manifest uploaded." If a mistake is found after a ballot manifest has been uploaded, participants have the option to log back in and use the **Replace File** button to update the file.

8. Once the steps for uploading your ballot manifest have been completed, log out before exiting the screen.

4.6 The Public Meeting

4.6.1 Ballot Retrieval Process

4.6.1.1 Log In to RLA Software

Once the list of ballots to be audited has been generated by the RLA software, participants will log into the RLA software to review the list of ballots they must retrieve to complete the RLA.

1. Using Google Chrome 🔴 or Safari as your browser, go to this link: https://arlo.voting.works
2. Click Log in to your RLA.
3. Enter email address.
4. Check your email for a new email with the subject "Welcome to Arlo - Use the Code in this Email to Log In" - enter the verification code.
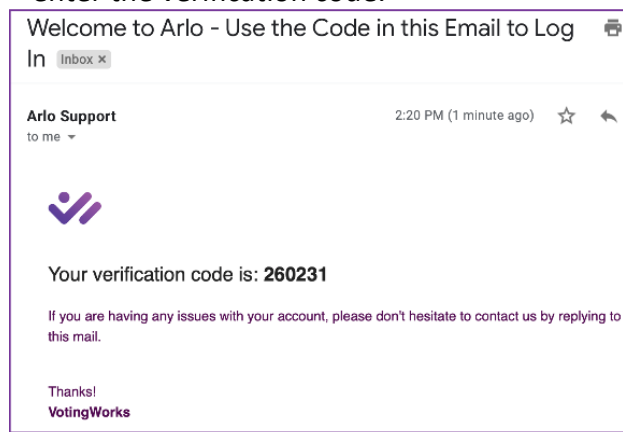
5. Click on the button with the locality name.

4.6.1.2 Audit Boards

The RLA software will ask how many audit boards will be participating in the RLA.

4.6.1.3 Download and Print

The RLA software will sort ballot retrieval lists, placeholder sheets, ballot labels, and audit board credentials for every audit board. Print each item for each audit board.


- **Ballot Retrieval List:** A ballot retrieval list is a list of ballots to be retrieved by a locality. The "Batch Name" will be the naming convention used in the ballot manifest. Since the selection is random, precincts may have multiple ballots to be retrieved and some precincts may have none.

	A	B
1	Batch Name	Ballot Number
2	Precinct 1	90
3	Precinct 2	2
4	Precinct 2	197
5	Precinct 4	27
6	Precinct 5	313
7	Precinct 5	578
8	Precinct 5	587

- o The ballot number reflects the numerical order of a specific ballot. To audit ballot number 90 in Precinct 1, for example, a member of the audit board must count from the top, each stored ballot until they reach the 90th ballot in the batch.
- **Placeholder sheets:** Placeholder sheets are individual sheets that contain each batch name and number (ex. Precinct 1, Ballot Number 90). They come in the form of a pdf and are printed on brightly colored paper. These sheets will be used to mark the place of the ballot that is being retrieved in the stack of ballots.
- **Ballot Labels:** Ballot Labels should be placed on ballots when retrieved. A bright-colored removable label is recommended but not required.
- **Audit Board Credentials for Data**: The RLA software will create a username and password for the audit board members. The link at the bottom of the audit board credentials or QR code will direct audit board members to the site to enter in the ballot totals.

4.6.2 Retrieving and Tallying Ballots

1. Review the list of ballots and retrieve the necessary containers.
2. Perform any change of custody that may be required by the Clerk of Court. The chain of custody needs to be documented. ELECT has a sample form that may be used to document the chain of custody, or a locality may design their own form.
3. Remove ballots from the box and place them in a neat stack.
4. Review the *Ballot Retrieval List* to determine what ballot to select.
5. Starting at the top of the stack, count ballots until the desired ballot is reached.
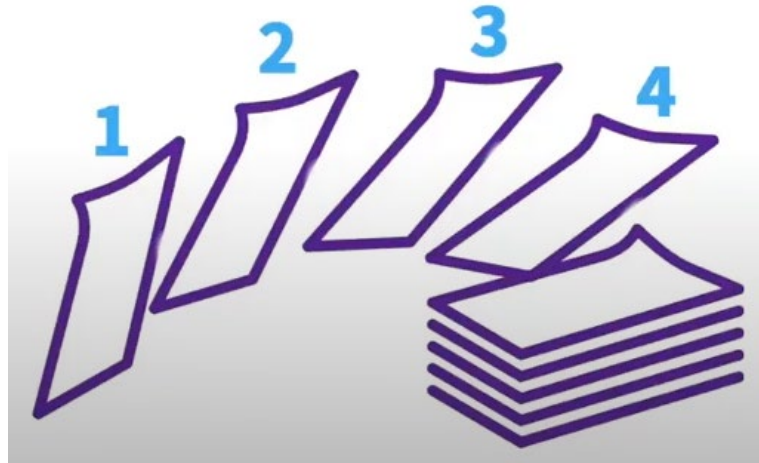
6. Once the ballot needed to be retrieved is reached, pull it out of the stack and insert the placeholder sheet in the stack to mark its position. Place the removable label on the ballot. The placeholder sheets and ballot labels are generated by the RLA software.

7. Once all ballots have been pulled from the containers, the audit board will use the procedures established by ELECT for conducting hand counts of ballots.[16] These procedures are outlined in Forms Warehouse under Election Management, Election Day Instruction and Forms, *Hand Counting-Ballots-Examples*. Include the batch name, ballot number, and the vote on the tally sheet. ELECT has sample tally sheets available for use during an RLA, but a locality may choose to create their own.

8. Localities may return ballot(s) to the appropriate container(s) or keep all the ballots from the RLA in a designated envelope/container.

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[16] *See* ELECT, Commonwealth of Virginia, Ballot Examples, Hand Counting Printed Ballots for Virginia Elections or Recounts

9. The containers should be resealed and returned to the Clerk of the Circuit Courts following the Chain of Custody procedures.

4.6.2.1 Alternative Methods to "Counting Down the Stack"

If a locality has a batch that is too large to locate a single ballot efficiently by counting down the stack of ballots, the locality may perform the **K-Cut Method** to locate the ballot or utilize a **Commercial Scale.** The methods are explained in more detail below:

K-Cut Method

To make a k-cut of a given stack of ballots:
- Cut the stack into two parts at *random*, designated a "top" part and a "bottom" part.
- Switch the order of the parts by moving the "bottom" part to the top and the "top" part to the bottom.
- The two parts are placed together.
- Cut the stack at least five times.
- The ballot at the top of the new stack is selected.[17]

A locality must perform a k-cut five times before selecting the top ballot. A random number must be used to dictate the percentage of the cut. One way to randomize the percentage of the cut is to utilize a random number generator set to 1-100.[18] The number generated then becomes the percentage of the cut (*example* 23=23% of the stack is moved to the bottom.) After performing the cut five times the top ballot becomes the retrieved ballot.

Commercial Scale

Localities may utilize a commercial scale to locate a ballot. Using a ballot scale is highly accurate, saves time, and places less stress on a locality's audit board. By calculating the average weight of the ballots, a scale can easily identify the corresponding ballot in a ballot retrieval list.[19]

Helpful Tips and Reminders:
- ELECT has a limited number of counting scales to loan. Localities may send an email to their Elections and Registration Specialist to request the use of a scale.
- ELECT has sample Chain of Custody forms and Tally Sheets available for use in Forms Warehouse.

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[17] *See* k-Cut: A Simple Approximately-Uniform Method for Sampling Ballots in Post-Election Audits, Mayuri Sridhar and Ronald L. Rivest, Massachusetts Institute of Technology

[18] *See* Sample Random Number Generator

[19] *See* Weight, Weight, Don't Tell Me: Using Scales to Select Ballots for Auditing, Cynthia Sturton, Eric Recorla, and David Wanger, University California Berkeley

4.7 Ballot Entry into the RLA Software

The link and/or QR code found at the bottom of the audit board credentials will take audit board members to the data entry portal to input the results of the RLA. A device with a Wi-Fi connection is needed to record the paper tally sheet. This may include a laptop or a smartphone. If using a smartphone, scan the QR code or type in the URL into the web browser.

Audit Board #1

Scan this QR code to enter the votes you see on your assigned ballots.

If you are not able to scan the QR code, you may also type the following URL into a web browser to access the data entry portal.

https://vx-arlo-review.herokuapp.com/auditboard/postnasal-settle-marauding-shelter

1. The audit board members will be prompted to sign in. The audit board will see the list of ballots. Audit board members will "key in" results from the list of ballots. If a locality has 22 ballots to retrieve, there will be 22 separate fields to record each ballot. ELECT recommends both audit board members participate with one audit board member reading the results and one audit board member entering the results. Audit board members must **both** agree on the results of each ballot.
2. Click the **Start Auditing** button to begin.

3. Go through the ballots in order.
4. Select the candidate marked on the ballot, both audit board members need to agree with the results. Click Review. Verify accuracy before clicking Submit & Next Ballot button.

5. When all ballots have been inputted, audit boards should return to the audit overview screen to verify every ballot has been entered into the audit software. Once everything has been verified, click the **"Auditing Complete-Submit Results"** button.

6. Audit board members will sign off. Names must be keyed in exactly how the audit board member signed in. For example, if the caps lock was on when the audit board member signed in, then the caps lock must be on when the audit board member signs out.
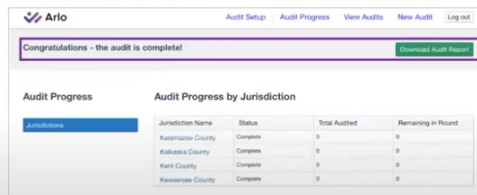
4.8 Completion of the Ballot-Polling RLA

When all audit boards have completed their ballot entry and the risk limit has been met, the *Audit Progress* screen will display the message "Congratulations - the audit is complete!"

If the risk limit was not met after all the ballots have been audited for the contest, the audit software will initiate another round of sampling. A new ballot retrieval list, placeholders, labels, and audit board credentials will be generated for an additional round of ballot retrieval. If more than one locality is auditing for the same office, both localities must complete before the software will determine the need for the second round and subsequently generate the new retrieval list(s).

Audit Completion

Pursuant to § 24.2-671.2 (I), if an RLA of a contested race escalates to a full hand count, the results of the hand count shall be used to certify the election in lieu of the tabulation of the unofficial results obtained prior to the conduct of the RLA.[20] After a certain number of rounds of RLA and the risk limit has yet to be met, Arlo will indicate that a full hand count is required if it finds the sample size needed is the same as the actual amount of ballots.

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[20] *See* Code of Virginia, §24.2-671.2 Risk-Limiting Audits

5. The Batch-comparison Method of the Risk-Limiting Audit

Once a locality has been approved for a batch-comparison RLA, it must do the following:

- Notify the public and participants identified in section 3.2 and 3.4 of this manual;
- Submit an ELECT 659-Request to Inspect Sealed Election Material form;
- Create and upload the ballot manifest as described in section 5.2.1;
- Create and upload the candidate totals by batch file as described 5.2.2; and,
- Gather Supplies for the RLA

5.1 Submitting an ELECT 659-Request to Inspect Sealed Election Material Form

Pursuant to Va. Code § 24.2-659, a locality must receive permission from the ELECT to unseal ballots cast on Election Day for a post-election audit. Localities are required to submit an *ELECT 659-Request to Inspect Sealed Election Material* form to obtain permission. Once submitted, the form is sent to ELECT for signature authorization and then presented to the Clerk of the Circuit Court to access ballots from the election. This form may be found in Forms Warehouse under the RLA section.

5.2 Create the RLA Documents

For a batch-comparison RLA, Arlo requires two documents, a *Ballot Manifest* and a *Candidate Totals by Batch* file. Both documents are discussed below. For the purpose of this manual, a batch is a documented set of ballots created by a voting system, an officer of election, or other election official. In Virginia, a batch is the equivalent of a precinct when utilizing the batch-comparison RLA Method.

5.2.1 Creating a Ballot Manifest

The ballot manifest is an inventory of every ballot cast in a locality for a particular race. A ballot manifest is a two-column Excel spreadsheet created by localities that includes a list of the "Batch Name" (Column A) and the "Number of Ballots" (Column B). Unlike in a ballot-polling ballot manifest, the batches listed in the ballot manifest for a batch comparison audit must be the size of your precincts. For example, if precinct 1 had 100 ballots cast then precinct 1 would be entered under Column A and 100 would be entered under Column B (*see below).*

	A	B
1	Batch Name	Number of Ballots
2	Precinct 1	301
3	Precinct 2	302

Note about Performing Both a Ballot-polling RLA and a Batch-comparison RLA

In the event that your locality has to perform both a ballot-polling RLA and a batch-comparison RLA, the ballot manifest for one may be used for the other. However, in this event, the batches listed in the ballot manifest ***must*** be the same as your precincts. For example, if 100 ballots were cast in Precinct 1, then Batch 1 would have 100 ballots. This is not only for consistency but also so that the candidate by batch file matches with the ballot manifest for a batch-comparison method RLA, discussed in 5.2.2 Creating a Candidate Totals by Batch File. You may also choose to create two separate ballot manifests for each separate method for greater ease in locating ballots.

5.2.2 Creating a Candidate Totals by Batch File

Unlike a ballot-polling method RLA, a batch-comparison RLA needs the amount of ballots cast for each candidate from each batch. Due to various voting systems capabilities and for the purposes of uniformity across the Commonwealth, the size of a batch must be the size of a precinct as that is the only way to get the total number of ballots cast for any candidate. The total number of ballots cast for any candidate must, then, be placed into a spreadsheet called the *Candidate Totals by Batch File*, which outlines each batch of ballots and how many ballots were cast for each candidate in a particular batch.

To create a *Candidate Totals by Batch File*, open a spreadsheet program to create a simple spreadsheet.

- Column A labeled "Batch Name" is for your batch name. The batch names in column A must match the batch names in your ballot manifest.
- Additional columns should be labeled with the names of the candidates. You should use the names on the ballot. Write-ins may be lumped together unless they have reached the threshold for a write-in certification.

	A	B	C	D
1	Batch Name	John Doe	Jane Smith	Write-in
2	Precinct 1	100	200	1
3	Precinct 2	200	100	2

Enter the data for your locality from your statements of results. When you're finished, review the spreadsheet to ensure the total number of batches matches the number of batches in your ballot manifest and that the candidate totals are correct. Then, save the file as a .csv file.

5.3 Uploading the Ballot Manifest and Candidate Totals by Batch files

Once the ballot manifest and the candidate totals by batch files are created, participants will save the ballot manifest and candidate totals by batch files as .**csv files (**CSV UTF-8, CSV (Macintosh) or CSV (MS-DOS) are all acceptable) and upload the spreadsheets into the auditing software. The RLA software will let participants know if a mistake has been made when creating or uploading the files by generating an error message. Mistakes can include: empty rows, incorrect file formats (the manifest must be saved as a .csv file), or ballot totals in any rows or columns. The ballot manifest and the candidate total by batch files must be uploaded no later than the Thursday after the SBE's random draw. Once the files are uploaded the RLA can begin. Detailed instructions, on how to upload a ballot manifest and the candidate totals by batch into the current auditing software, are listed below:

1. Using Google Chrome or Safari as your browser, go to this link: https://arlo.voting.works
2. Click Log in to your audit.

3. Enter email address.
4. Check your email for a new email with the subject "Welcome to Arlo - Use the Code in this Email to Log In" - enter the verification code.

Welcome to Arlo - Use the Code in this Email to Log In   Inbox ×

Arlo Support   2:20 PM (1 minute ago)
to me ▾

Your verification code is: **260231**

If you are having any issues with your account, please don't hesitate to contact us by replying to this mail.

Thanks!
VotingWorks

5. Click on the button with the locality name.

Sample County
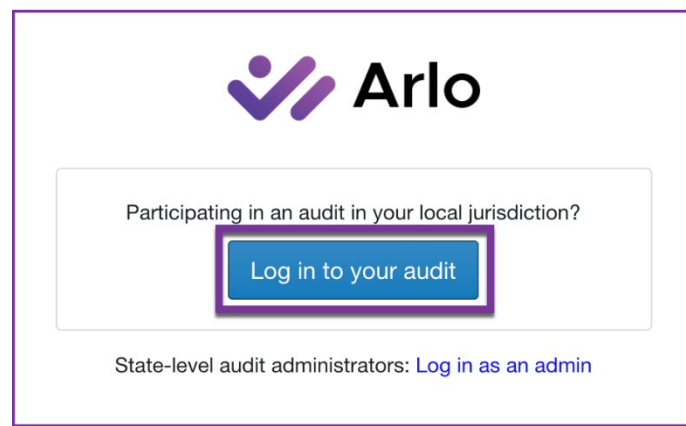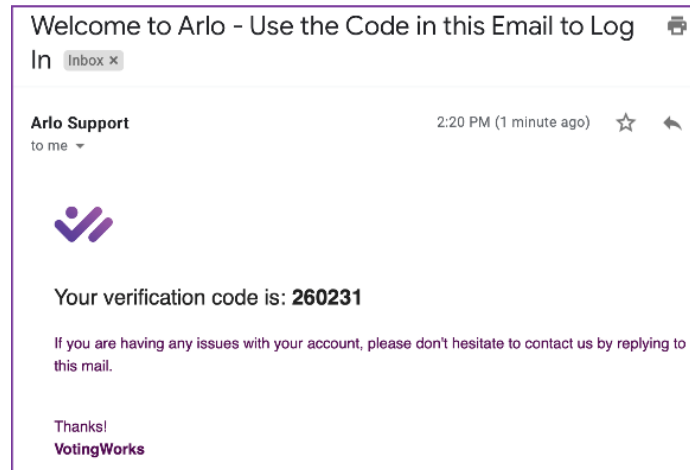
6. Click the Browse button and navigate to the ballot manifest .csv file that was created. Once selected, click Upload File.

Arlo

The audit has not started.
Ballot manifest not uploaded.

Audit Source Data

Ballot Manifest

Click "Browse" to choose the appropriate Ballot Manifest file from your computer. This file should be a comma-separated list of all the ballot boxes/containers used to store ballots for this particular election, plus a count of how many ballot cards (individual pieces of paper) are stored in each container.

(Click here to view a sample file in the correct format.)

Select a CSV...   Browse

Upload File

7. When the upload is successful, a message will appear at the top of the screen that says "Ballot manifest uploaded." If a mistake is found after a ballot manifest has been uploaded, participants have the option to log back in and use the **Replace File** button to update the file.

7. Next, a prompt will appear below the Ballot Manifest section to upload the Candidate Totals by Batch. click the Browse button to navigate to the candidate totals by batch .csv file. Once selected, click the Upload File button. Remember, the batch names in the Candidate Totals by Batch file must match the batch names in the ballot manifest and the totals listed in the Candidate Totals by Batch match your statements of results.

5.4 Retrieving and Tallying

After the audit begins, the locality will receive a batch retrieval list. To retrieve batches, refer to your batch retrieval list to determine what batches are needed. Each batch retrieval list will show the batch name and the audit board selected to tally the batch.

	A	B
1	Batch Name	Audit Board
2	Precinct 1	Audit Board 1
3	Precinct 2	Audit Board 2

- Retrieve the correct container(s) using the required chain of custody verification steps.
- Pull the entire batch of ballots out of the storage container and organize it into a neat stack of ballots. If the container contains more than 1000 ballots, ballots should be removed from the container and sorted in manageable stacks, leaving the rest of the ballots in the container until the previous stack is tallied.[21]

5.4.1 Methods for Retrieving Ballots

There are two methods for retrieving and tallying during a batch-comparison RLA. For larger batches, multiple audit review boards may be assigned. Audit review boards should be encouraged to prioritize accuracy over speed; it is better to have the correct count the first time and it take more time than to have to redo the count.

The Sort-and-Stack Method[22]

    a. For each ballot: one audit board member picks up a single ballot from the stack and reads the vote for the contest being audited aloud, then hands the ballot to the second audit board member.

        i. The second audit board member verifies the vote that is on the ballot is indeed what the first audit board member read, then places the ballot in the "stack" that corresponds to the vote.

        ii. The first audit board member should watch to make sure the ballot is placed in the correct stack.

        iii. A stack should be created for each contest choice (including write-in), overvoted/blank/undervoted ballots, duplicated ballots, and ballots where the audit board cannot agree on the voter's intent.

    b. Count the ballots in each stack by having one member of the audit board verbally count the ballot while handing it to the other member for verification.

        i. Count the ballots in groups of 10, stacking the groups at right angles to each other, so you can easily count the complete groups when you are

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[21] *See* VotingWorks, Batch Retrieval & Tally

[22] *Id.*

done. For instance, if you have seven groups of 10 ballots each plus an extra 3 ballots, the total tally would be 73.

    ii.   Record the total tally for each candidate on the Audit Board Batch Tally Sheet.

The Hashmarking Method[23]

    a. Prepare a Tally Sheet

        iii. For this method, a tally sheet should be prepared. The tally sheet should:

1. be organized in the same order as the ballot.
2. list each contest and associated choices (including write-ins when applicable) to be audited.
3. include a space for overvotes and blank/undervotes for each contest.
4. have space for tally marks after each choice.

    b. Tally the Votes: One audit board member reads the choice for the first contest being audited to the second audit board member who makes a tally mark on the tally sheet. Repeat for all contests being audited. Ideally, a third audit board member should observe the ballot marks and tally sheet tallies.

        i. Completing this process in groups of 20, 50, 100, or some other set number allows for verification checks throughout the process. Once the set number is completed, add up the tally marks to ensure the same number was tallied for each contest.

    c. Complete Audit Board Batch Tally Sheet: When all ballots are tallied, total the tally marks and complete the Audit Board Batch Tally Sheet.

5.5 Batch Tally Entry into Arlo

All tallies from the batches selected must be uploaded into Arlo; the audit will remain open until all tallies have been uploaded. Tallies can be entered by audit boards, a specified member of the staff, an electoral board member, or the GR.

To create tally entry accounts for audit boards or for a specified individual, select Set Up Tally Entry Accounts on the Set Up Tally Entry Accounts screen. If only one designated participant will be entering tallies, select Skip.[24]

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[23] *Id.*

[24] *See* VotingWorks, Batch Tally Entry into Arlo, Voting Works

A designated participant should provide the audit boards or the specified individual with the login link displayed on the screen (each link is unique). Then, the audit board or specified individual should Log In by entering their name(s) and party affiliation, if provided. A login code will be provided, the participants enter that code to authenticate the Tally Entry User(s) by selecting Enter Login Code, entering the code, and selecting Confirm to complete the login process.[25]

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[25] *Id.*
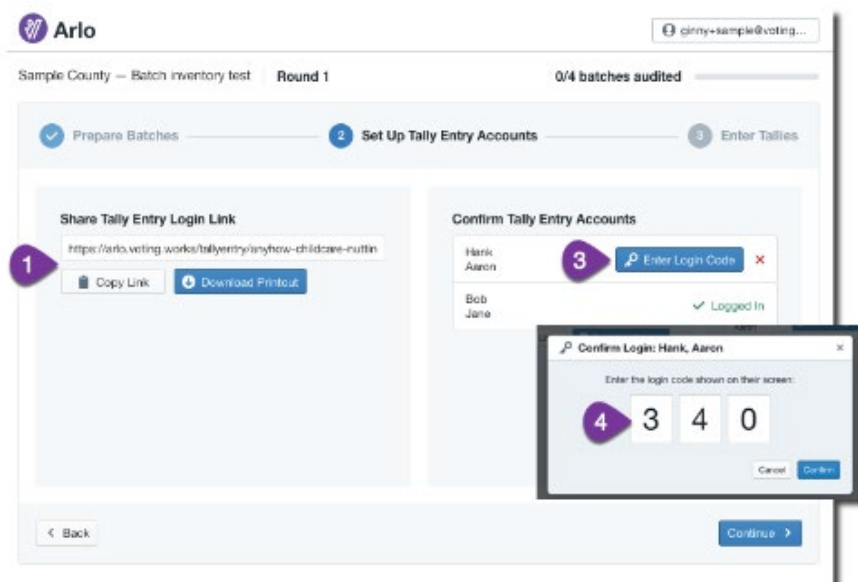
Jurisdiction Manager
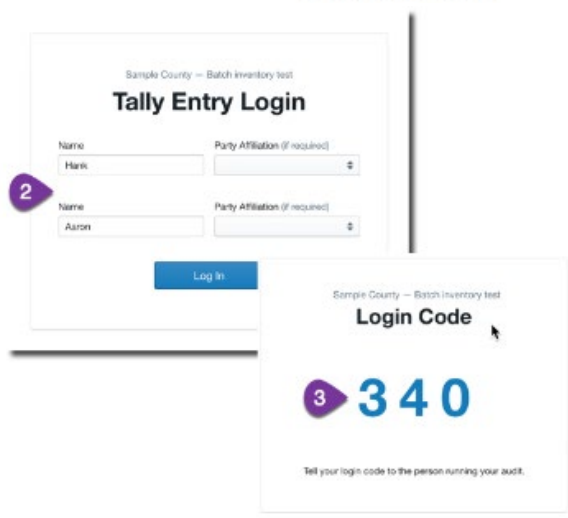
Tally Entry User

To enter the candidate totals for a batch, select the batch from the list on the left-hand side of the Enter Tallies screen or use the search batches function, and, then, click Edit Tallies, enter the vote totals from the Batch Tally Sheet, and select Save Results.[26] Once all batches have been entered and reviewed, a designated participant can select Finalize Tallies.[27]

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[26] *Id.*
[27] *Id.*

If multiple Audit Board Batch Tally Sheets were used to tally a batch, select the drop-down next to Edit Tallies and select Use Multiple Tally Sheets to enter more than one tally sheet. The individual who enters the tally sheet should edit the name at the top to identify who completed the entry of the Batch Tally Sheet; this helps keep a chain of custody for the data entered. Next, enter the votes, and select Save Sheet (the Edit Tallies button changes to Save Sheet after selection).[28] Select Sheet 2 to add another Batch Tally Sheet, and Select +Add Sheet to add another Tally Sheet as needed.[29] The Vote Totals tab is the sum of votes for all sheets entered.[30]

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[28] *Id.*

[29] *Id.*

[30] *Id.*

5.6 Completion of a Batch-comparison RLA

When all audit boards have completed their tally entry and the risk limit has been met, the *Audit Progress* screen will display the message "Congratulations - the audit is complete!"

If the risk limit was not met after all the batches have been audited for the contest, the audit software will initiate another round of sampling. A new batch retrieval list, placeholders, labels, and audit board credentials will be generated for an additional round of batch retrieval.
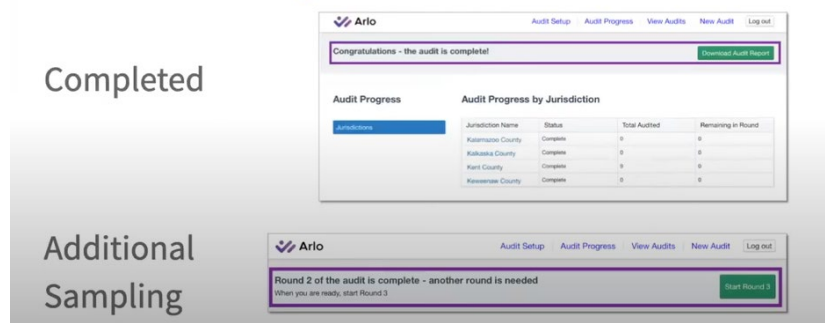
Pursuant to § 24.2-671.2 (I), if an RLA of a contested race escalates to a full hand count, the results of the hand count shall be used to certify the election in lieu of the tabulation of the unofficial results obtained prior to the conduct of the RLA.[31] After a certain number of rounds of RLA and the risk limit has yet to be met, Arlo will indicate that a full hand count is required if it finds the sample size needed is the same as the actual amount of ballots.

6. Results

At the conclusion of the RLA, ELECT will submit a report to the SBE on the findings of the RLA. If your locality is participating in an RLA and would like to provide feedback to be included in the report, contact your RLA Administrator from ELECT with your findings. The report will include the results of the RLA as well as an analysis of any detected discrepancies. ELECT has also created a sample press release template that localities may utilize. This press release is found in the RLA section in Forms Warehouse.

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[31] *See* Code of Virginia, §24.2-671.2 Risk-Limiting Audits

7. APPENDIX

7.1 Code

7.1.1 § 24.2-671.2. Risk Limiting Audits

A. For the purposes of this section:

"Contested race" means an election for an office where more names appear on the ballot then there are vacancies to be filled or a statewide referendum or proposed constitutional amendment.

"Risk limit" means the largest probability that the Risk Limiting Audit will fail to correct an election outcome that differs from the outcome that would be found by a full manual tabulation of the votes on all ballots cast in the contested race.

"Risk Limiting Audit" means an audit protocol conducted after an election and prior to the certification of the election results with a pre-specified minimum probability of requiring a full hand count of votes cast if the outcome reported by the voting system differs from the outcome that would be found by a full hand count of the votes in a contested race. A "Risk Limiting Audit" requires a hand count of randomly sampled printed ballots that continues until there is either strong statistical evidence that the reported outcome is accurate or, in the absence of such evidence, a full hand count of all ballots cast in the contested race that determines the outcome.

B. Risk Limiting Audits conducted pursuant to this section shall be performed by the local electoral boards and general registrars under the supervision of the Department and in accordance with the procedures prescribed by the State Board, including:

1. Processes for randomly selecting contested races and determining the risk limit.

2. Procedures for preparing for a Risk Limiting Audit, including guidelines for organizing ballots, selecting venues, and securing appropriate materials by local electoral boards and general registrars.

3. Procedures for ballot custody, accounting, security, and written record retention that ensure that the collection of cast ballots from which samples are drawn is complete and accurate throughout the audit.

4. Procedures for hand counting of the audited ballots.

5. Processes and methods for conducting the Risk Limiting Audit.

6. Procedures for ensuring transparency and understanding of the process by participants and the public, including guidelines for direct observation by members of the public, representatives of the candidates involved in the Risk Limiting Audit, and representatives of the political parties.

C. The Department shall provide that the following Risk Limiting Audits be conducted:

1. In the year of a general election for members of the United States House of Representatives, a Risk Limiting Audit of at least one randomly selected contested race for such office;

2. (Effective July 1, 2023) In the year of a general election for members of the General Assembly, a Risk Limiting Audit of at least one randomly selected contested race for such office;

3. (Effective July 1, 2024) In any year in which there is not a general election for a statewide office, a Risk Limiting Audit of at least one randomly selected contested race for a local office, including constitutional offices, for which certification by the State Board is required under § 24.2-680; and,

4. (Effective July 1, 2023) In any year, any other Risk Limiting Audit of a contested race that is necessary to ensure that each locality participates in a Risk Limiting Audit of an office within its jurisdiction at least once every five years or that the State Board finds appropriate. Such audits must be approved by at least a two-thirds majority vote of all members of the Board.

D. A local electoral board may request that the State Board approve the conduct of a Risk Limiting Audit for a contested race within the local electoral board's jurisdiction. The state board shall promulgate regulations for submitting such requests. The State Board shall grant an extension of the local electoral board's certification deadline under § 24.2-671 as necessary to accommodate the conduct of a Risk Limiting Audit conducted pursuant to this subsection. The Department may count a Risk Limiting Audit conducted pursuant to this subsection toward the requirement in subdivision C 4.

E. Notwithstanding the provisions of subsections C and D, no contested race shall be selected to receive a Risk Limiting Audit if the tabulation of the unofficial result for the contested race shows a difference of not more than one percent of the total vote cast for the top two candidates.

F. Upon the tabulation of the unofficial results of an election, the State Board shall determine, in accordance with subsection C, all the contested races for that election that will receive a Risk Limiting Audit and shall set the risk limit to be applied in such audits. As soon as practicable after selection of the contests to be audited, the Department shall publish a notice of the contested races in accordance with the requirements for public meetings in § 2.2-3707. The Department shall provide support to local electoral boards and general registrars in preparing to hold the Risk Limiting Audits.

G. The local electoral board and general registrar shall conduct a Risk Limiting Audit within their jurisdiction at the date, time, and location noticed by the Department. At least one member of the EB representing each party shall participate in the Risk Limiting Audit and be present for the duration of the Risk Limiting Audit when ballots are being selected and counted and calculations are being made. All Risk Limiting Audits shall be conducted in a place and manner that is open to the public. At the conclusion of a Risk Limiting Audit, all audit materials, including ballots and any records generated during the course of the audit, shall be delivered to the clerk of the circuit court and retained as election materials pursuant to § 24.2-668.

H. The local electoral board in coordination with the general registrar shall promptly report the results of a Risk Limiting Audit of any contested races subject to § 24.2-680 in their jurisdiction to the Department. The results of any Risk Limiting Audit for a local contested race shall also be retained by the local electoral board. At the conclusion of each Risk Limiting Audit requiring certification by the State Board, the Department shall submit to the State Board a report, which shall include all data generated by the Risk Limiting Audit and all information required to confirm that the Risk Limiting Audit was conducted in accordance with the procedures adopted by the State Board. The Department shall publish the results of all Risk Limiting Audits pursuant to this section on the Department's website.

I. If a Risk Limiting Audit of a contested race escalates to a full hand count, the results of the hand count shall be used to certify the election in lieu of the tabulation of the unofficial results obtained prior to the conduct of the Risk Limiting Audit. A full hand count conducted pursuant to this section shall not be construed as a recount under Chapter 8 (§ 24.2-800 et seq.). Nothing in this section shall be construed to limit the rights of a candidate under Chapter 8.
2022, cc. 443, 444.

7.1.2 § 24.2-669. Clerk to keep ballots; inspection; destruction.
The clerk to whom the counted and uncounted ballots are delivered shall, without breaking the seal, deposit them in a secure place in his office, where they shall be kept for the time required by this section. He shall not allow the ballots to be inspected except (i) by an authorized representative of the State Board or by the electoral board at the direction of the State Board to ensure the accuracy of the returns or the purity of the election, (ii) by the officers of election, and then only at the direction of the electoral board in accordance with § 24.2-672 when the provisions of § 24.2-662 have not been followed, (iii) on the order of a court before which there is pending a proceeding for a contest or recount under Chapter 8 (§ 24.2-800 et seq.) of this title or before whom there is then pending a proceeding in which the ballots are necessary for use in evidence, or (iv) for the purpose of conducting an audit as part of a post-election pilot program pursuant to § 24.2-671.1. In the event that ballots are inspected under clause (i), (ii), or (iv) of this paragraph, each political party and each independent candidate on the ballot, or each primary candidate, shall be entitled to have a representative present during such inspection. The representatives and observers lawfully present shall be prohibited from interfering with the officers of election in any way. The State Board or local electoral board shall provide such parties and candidates reasonable advance notice of the inspection.

After the counted ballots for a federal election have remained in the clerk's office for two years, if no election contest or other proceeding is pending in which such ballots may be needed as evidence, the clerk shall destroy such ballots. After the counted ballots for any other election have remained in the clerk's office for one year, if no election contest or other proceeding is pending in which such ballots may be needed as evidence, the clerk shall destroy such ballots. After the unused ballots have remained in the clerk's office and the time has expired for initiating a recount, contest, or other proceeding in which such ballots may be needed as

evidence and no such contest or proceeding is pending, the clerk may then destroy the unused ballots other than punchcard ballots, which shall be returned to the electoral board.

7.1.3 §24.2-671 Electoral Board to Meet and Ascertain Results; Conclusiveness of Results

Each electoral board shall meet at the clerk's or general registrar's office of the county or city for which they are appointed at or before 5:00 p.m. on the day after any election. The board may adjourn to another room of sufficient size in a public building to ascertain the results, and may adjourn as needed, not to exceed seven calendar days from the date of the election unless an extension has been granted to accommodate a Risk Limiting Audit conducted pursuant to § 24.2-671.2. Written directions to the location of any room other than the clerk's or general registrar's office where the board will meet shall be posted at the doors of the clerk's and general registrar's offices prior to the beginning of the meeting.
The board shall open the returns delivered by the officers.

If the electoral board has exercised the option provided by § 24.2-668 for delivery of the election materials to the office of the general registrar on the night of the election, the electoral board shall meet at the office of the general registrar at or before 5:00 p.m. on the day after any election.

The board shall ascertain from the returns the total votes in the county or city, or town in a town election, for each candidate and for and against each question and complete the abstract of votes cast at such election, as provided for in § 24.2-675. For any office in which no person was elected by write-in votes, and for which the total number of write-in votes for that office is less than (i) 10 percent of the total number of votes cast for that office and (ii) the total number of votes cast for the candidate receiving the most votes, the electoral board shall ascertain the total votes for each write-in candidate for the office within one week following the election. For offices for which the electoral board issues the certificate of election, the result so ascertained, signed and attested, shall be conclusive and shall not thereafter be subject to challenge except as specifically provided in Chapter 8 (§ 24.2-800 et seq.).
Once the result is so ascertained, the secretary of the electoral board shall deliver one copy of each statement of results to the general registrar to be available for inspection when his office is open for business. The secretary shall then return all pollbooks, any printed inspection and return sheets, and one copy of each statement of results to the clerk.

Beginning with the general election in November 2007, a report of any changes made by the local electoral board to the unofficial results ascertained by the officers of election or any subsequent change to the official abstract of votes made by the local electoral board shall be forwarded to the State Board of Elections and the explanation of such change shall be posted on the State Board website.

Each political party and each independent candidate on the ballot, or each primary candidate, shall be entitled to have representatives present when the local electoral board meets to ascertain the results of the election. Each such party and candidate shall be entitled to have at least as many representatives present as there are teams of officials working to ascertain the

results, and the room in which the local electoral board meets shall be of sufficient size and configuration to allow the representatives reasonable access and proximity to view the ballots as the teams of officials work to ascertain the results. The representatives and observers lawfully present shall be prohibited from interfering with the officials in any way. It is unlawful for any person to knowingly possess any firearm as defined in § 18.2-308.2:2 within 40 feet of any building, or part thereof, used as a meeting place for the local electoral board while the electoral board meets to ascertain the results of an election, unless such person is (a) any law-enforcement officer or any retired law-enforcement officer qualified pursuant to subsection C of § 18.2-308.016; (b) occupying his own private property that falls within 40 feet of a polling place; or (c) an armed security officer, licensed pursuant to Article 4 (§ 9.1-138 et seq.) of Chapter 1 of Title 9.1, whose employment or performance of his duties occurs within 40 feet of any building, or part thereof, used as a meeting place for the local electoral board while the electoral board meets to ascertain the results of an election.

7.1.4 § 2.2-3707. Meetings to be public; notice of meetings; recordings; minutes.

A. All meetings of public bodies shall be open, except as provided in §§ 2.2-3707.01 and 2.2-3711.

B. No meeting shall be conducted through telephonic, video, electronic or other electronic communication means where the members are not physically assembled to discuss or transact public business, except as provided in § 2.2-3708.2 or as may be specifically provided in Title 54.1 for the summary suspension of professional licenses.

C. Every public body shall give notice of the date, time, and location of its meetings by:

1. Posting such notice on its official public government website, if any;

2. Placing such notice in a prominent public location at which notices are regularly posted; and

3. Placing such notice at the office of the clerk of the public body or, in the case of a public body that has no clerk, at the office of the chief administrator.

All state public bodies subject to the provisions of this chapter shall also post notice of their meetings on a central, publicly available electronic calendar maintained by the Commonwealth. Publication of meeting notices by electronic means by other public bodies shall be encouraged.

The notice shall be posted at least three working days prior to the meeting.

D. Notice, reasonable under the circumstance, of special, emergency, or continued meetings shall be given contemporaneously with the notice provided to the members of the public body conducting the meeting.

E. Any person may annually file a written request for notification with a public body. The request shall include the requester's name, address, zip code, daytime telephone number, electronic mail address, if available, and organization, if any. The public body receiving such request shall provide notice of all meetings directly to each such person. Without objection by

the person, the public body may provide electronic notice of all meetings in response to such requests.

F. At least one copy of the proposed agenda and all agenda packets and, unless exempt, all materials furnished to members of a public body for a meeting shall be made available for public inspection at the same time such documents are furnished to the members of the public body. The proposed agendas for meetings of state public bodies where at least one member has been appointed by the Governor shall state whether or not public comment will be received at the meeting and, if so, the approximate point during the meeting when public comment will be received.

G. Any person may photograph, film, record or otherwise reproduce any portion of a meeting required to be open. The public body conducting the meeting may adopt rules governing the placement and use of equipment necessary for broadcasting, photographing, filming, or recording a meeting to prevent interference with the proceedings, but shall not prohibit or otherwise prevent any person from photographing, filming, recording, or otherwise reproducing any portion of a meeting required to be open. No public body shall conduct a meeting required to be open in any building or facility where such recording devices are prohibited.

H. Minutes shall be recorded at all open meetings. However, minutes shall not be required to be taken at deliberations of (i) standing and other committees of the General Assembly; (ii) legislative interim study commissions and committees, including the Virginia Code Commission; (iii) study committees or commissions appointed by the Governor; or (iv) study commissions or study committees, or any other committees or subcommittees appointed by the governing bodies or school boards of counties, cities and towns, except where the membership of any such commission, committee or subcommittee includes a majority of the governing body of the county, city or town or school board.

Minutes, including draft minutes, and all other records of open meetings, including audio or audio/visual records shall be deemed public records and subject to the provisions of this chapter.

Minutes shall be in writing and shall include (a) the date, time, and location of the meeting; (b) the members of the public body recorded as present and absent; and (c) a summary of the discussion on matters proposed, deliberated, or decided, and a record of any votes taken. In addition, for electronic communication meetings conducted in accordance with § 2.2-3708.2, minutes of state public bodies shall include (1) the identity of the members of the public body at each remote location identified in the notice who participated in the meeting through electronic communication means, (2) the identity of the members of the public body who were physically assembled at the primary or central meeting location, and (3) the identity of the members of the public body who were not present at the locations identified in clauses (1) and (2) but who monitored such meeting through electronic communication means.

1968, c. 479, § 2.1-343; 1973, c. 461; 1976, c. 467; 1977, c. 677; 1982, c. 333; 1989, c. 358; 1990, c. 538; 1993, c. 720; 1995, c. 562; 1999, cc. 696, 703, 726; 2000, c. 227; 2001, c. 844;

2004, cc. [730](), [768](); 2005, c. [352](); 2007, c. [300](); 2009, c. [628](); 2010, c. [309](); 2015, c. [131](); 2017, c. [616](); 2018, c. [55]().

7.2 ELECT 659-Request to Inspect Sealed Election Material

★ VIRGINIA ★
DEPARTMENT *of* ELECTIONS

ELECT 659 - Request to Inspect Sealed Election Materials

Election Date: *

Election Type: *

Date of Request: *
2021-04-28

Name of Requester *

Position *

Email Address *

Phone Number *

Confirm Email Address *

Locality *

Precinct Name *

Precinct #: *

Specific Envelope which needs to be inspected:

The Envelope needs to be inspected to determine:

Powered by formsite

Submit

7.3 RLA Chain of Custody Log

RLA Chain of Custody Log   **Jurisdiction Name:**

Election Date: _____   **Audit**

Date(s):_____

Date	Name (Please sign)	Title	Precinct Box/Envelope being checked out or back in	Time Out	Time In

7.4 Tally Sheet

RISK-LIMITING AUDIT TALLY SHEET																														
Office										Total Ballots Audited: _____									Audit Date: _____											
CANDIDATE	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#	Batch	Ballot#		TOTAL
Mickey																														0
Minnie																														0
Goofy																														0
Write-In:																														0
Over Votes:																														0
Under Votes:																														

7.5 Sample Press Release

[For Immediate Release (unless embargoed)]

[Organization Name]

[Date]

[Headline, use Times New Roman or Arial font]

[Insert Sub header, Keep font sizes standard, and 1 point apart in size. For example, if your headline is 14, your sub header should be 13, and your body should be 12]

[CITY] **–** Provide general news release content. For example, begin by naming official who announced the results and summarize the results.

Here you can include 1-2 paragraphs explaining some of the details about the audit.

[Quote from the Director of Elections/GR]

Include any additional information or resources related to the audit, which can include links to the audit report, voter registration website, etc.

Media Contact:

[Name]

[Job Title]

[Email address]

[Phone number]

[Website]

###

7.6 Glossary

Administrator: a member of ELECT staff that adds elections to be audited, sets the risk-limit, adds participants, inputs the random seed number, and reviews the progress of the RLA.

Arlo: the RLA software supported by VotingWorks and leased by ELECT to administer the RLA

Audit Review Boards: a two-person team that retrieves specific ballots, records the results on a tally sheet, and uploads the results into the auditing software.

Ballot Manifest: a two-column Excel spreadsheet that creates an inventory of every ballot cast in a locality during a contest.

Ballot-Polling: one of two methods for conducting an RLA that relies on manually reviewing a random sample of ballots across localities to determine if the overall outcome of an election was correctly reported.

Batch: a documented set of ballots created by a voting system, an officer of election, or other election official.

Batch-comparison: one of two methods for conducting an RLA that relies on manually counting all ballots in a random selection of precinct batches to determine if the overall outcome of an election was correctly reported. This method is only available to those RLAs applied for pursuant to §24.2-671.2(D).

Candidate Totals by Batch: a file that outlines each batch of ballots and how many votes were cast for each candidate in a particular batch.

Participants: a GR or appointed person that will be responsible for coordinating the audit in their locality. Participants are responsible for uploading a ballot manifest, entering audit review boards, and downloading ballot retrieval lists from the audit software.

Random Seed Number: a 20-digit number randomly generated by the rolling of 20 ten-sided dice once each during the SBE RLA Selection Meeting. This number is used to generate the ballot or batch retrieval list by Arlo.

Risk Limit: the maximum chance that the audit will fail to correct an incorrectly reported outcome. For example, a 10% risk limit means there is a 90% chance that the audit will correct an incorrectly reported outcome.

Risk Limiting Audit: a type of post-election audit that utilizes statistical methods and a manual review of paper ballots to check that the voting equipment accurately reported the correct outcome of an election.

7.7 1VAC20-60-80 Request for Risk Limiting Audit Race within a Jurisdiction

A. For purposes of this section, "contested race" means a contested race wholly contained within the jurisdiction of the county or city for which an electoral board requesting a risk-limiting audit serves.

B. Pursuant *to §* 24.2-671.2 D of the Code of Virginia, a local electoral board shall follow the process in this section to request a risk-limiting audit of a contested race within its jurisdiction:

> 1. At the public canvass meeting following the election, an electoral board may elect to request a risk-limiting audit of a contested race, or multiple contested races, by a majority vote.

> 2. If a question to request a risk-limiting audit achieves a majority vote, an electoral board must submit a completed SBE 671.2(D) Request for Risk-Limiting Audit form to request SBE (SBE) approval of the audit. If requesting audits of multiple contested races, an electoral board must submit a completed SBE 671.2(D) Request for Risk-Limiting Audit form for each race. If risk-limiting audits are requested for multiple contested races, the electoral board must request the same method of conducting the audit for each race.

> 3. The SBE will grant a request for a risk-limiting audit of a contested race if:
> > a. The submitted SBE 671.2(D) Request for Risk-Limiting Audit form contains sufficient information for the SBE to determine that the local electoral board members cast a majority vote in favor of the audit request;
>
> > b. The submitted SBE-671.2(D) Request for Risk-Limiting Audit form contains sufficient information for the SBE to determine the method of conducting the risk-limiting audit chosen by a majority vote of the electoral board and, in the event that risk-limiting audits are requested for multiple contested races, the requested method of conducting the risk-limiting audit is the same for each race;
>
> > c. The submitted SBE 671.2(D) Request for Risk-Limiting Audit form contains sufficient information for the State Board of Elections to determine which contested races are subject to the requested audit and that those contested races are in fact wholly contained within the jurisdiction of the city or county for which the local electoral board serves;
>
> > d. The State Board of Elections concludes that the audit is permissible under § 24.2-671.2 of the Code of Virginia and all other relevant provisions of law; and
>
> > e. The margin of the candidate with the most votes and the second most votes is equal to or greater than 1.0%

4. Upon granting an electoral board's request for a risk-limiting audit, the State Board of Elections may grant an extension not to exceed two weeks of the local electoral board's certification deadline pursuant to § 24.2-671 of the Code of Virginia if necessary for the conduct of the audit.

Statutory Authority
§ 24.2-103 of the Code of Virginia.

★ VIRGINIA ★
DEPARTMENT *of* **ELECTIONS**

REQUEST FOR RISK-LIMITING AUDIT

PURPOSE OF THIS FORM

Under Code of Virginia § 24.2-671.2(D), "A local electoral board may request that the State Board approve the conduct of a risk-limiting audit for a contested race within the local electoral board's jurisdiction." The local electoral board may request an audit of such a local race wholly contained within the jurisdiction of the local electoral board by completing and submitting this form to their Election Services Registrar Liaison prior to the State Board of Elections meeting to choose races to audit. Please review 1VAC20-60-80 for details on qualifying for a risk-limiting audit request.

COMPLETE THE FOLLOWING:

Locality: _____

Date of Public Meeting: _____

Local Contested Race: _____

Town Name/District Number: _____

Date of RLA: _____

Location of RLA: _____

Was Ranked-Choice Voting Used? ☐ Yes   ☐ No

RLA Method Requested: ☐ Ballot-polling   ☐ Batch-comparison

Preliminary Vote Totals: _____

    Candidate A: _____

    Candidate B: _____

    Candidate C (if applicable): _____

    Candidate D (if applicable): _____

On the lines below, please include any other relevant information

_____

_____

ELECT reserves the right to ask additional questions on behalf of the SBE, if necessary.

**Please submit a form for each local contested race your locality is requesting to have audited. If multiple races are being submitted, the RLA method requested must be the same for all races requested.

We, the members of the electoral board, request an audit of the above contested race(s), *being wholly contained* within our jurisdiction:

Printed name of Chairperson	Signature	Date	Vote (Yay or Nay)

Printed name of Vice-Chairperson	Signature	Date	Vote (Yay or Nay)

Printed name of Secretary	Signature	Date	Vote (Yay or Nay)

If your audit request is approved by the State Board of Elections, then the Board may grant an extension of up-to two weeks to your certification deadline under §24.2-671.2 of the Code of Virginia for the audited race.

7.9 General Timeline for a Risk-Limiting Audit after a General Election

First Tuesday in November:

Election Day

→

The week following Election Day:

The Canvass

→

One week after Election Day:

Deadline to Submit Races to Audit

Second Wednesday after Election Day

SBE Selection Meeting

→

Day after Selection Meeting:

Upload Ballot Manifest

→

The week and a half following:

Begin RLA

(Exact Timing will be Annouced at SBE Mtg)

First Monday in December

SBE Certification Meeting