

SAMPLE REPORT • WMS & INVENTORY DATA AUDIT

WHERE THE NUMBERS GO WRONG.

A fixed-fee data audit of receiving, item master, locations, replenishment, picking, counting, adjustments and interfaces at **Northstar Distribution**, a fictional 250,000 sq ft consumer goods distribution center.

ILLUSTRATIVE SAMPLE • FICTIONAL COMPANY • INVENTED DATA
NOT A RECORD OF ANY REAL ENGAGEMENT

PREPARED FOR
Northstar Distribution (fictional)

DATA PERIOD
1 July 2025 – 30 June 2026 (12
months)

PREPARED BY
WMSAudit • wmsaudit.com
Sample edition, September 2026

BEFORE YOU READ

CONFIDENTIALITY AND ILLUSTRATIVE-DATA NOTICE

THIS IS A SAMPLE, NOT A CLIENT REPORT

Northstar Distribution is a fictional company. Every name, SKU, user, volume, dollar figure and finding in this document is invented to show the structure, depth and method of a WMSAudit report. WMSAudit has not audited Northstar Distribution. Nothing here describes a real client, and no result shown should be read as a typical, expected or guaranteed outcome of an engagement.

The figures are internally consistent: every financial estimate shows its inputs and formula, and all of them are computed from one model rather than typed in. That is so the method can be checked. It doesn't make the numbers real.

How a real report is handled

A client report is confidential to the client. Work begins under a mutual NDA, uses read-only exports the client sends (no system logins, VPN or installed software), and the report, evidence files and queries belong to the client to circulate internally as they choose.

How to read the money

- Three kinds of figure are kept apart throughout, because adding them together would overstate the case:
- **Measurable exposure:** cost already visible in the 12-month data.
 - **Recoverable opportunity:** the share expected to stop after correction, at a stated rate.
 - **Unmonetized risk:** real, but not responsibly priced from the data available.

One-time balances (stock at risk, credits to claim) are shown separately and never added to annual figures.

Terms used in this report

Case pack	Units in one vendor case. Stored in the item master and used to convert every case received into eaches.
Unit of measure (UOM)	Each, inner, case or pallet. A wrong conversion multiplies every transaction it touches.
Pick face	The forward location an order is picked from, replenished from reserve.
Reserve	Bulk storage, usually full or partial pallets, that feeds pick faces.
Min/max	Pick-face levels that trigger replenishment and cap how much is moved forward.
Emergency replenishment	An unplanned move made because a pick face ran out while orders were waiting.

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Short pick	A picker could not find the quantity the order line asked for.
Adjustment	A manual change to on-hand. Every one records that the system was wrong.
Blind count	A count where the counter cannot see the quantity the system expects.
Location accuracy	Share of counted locations that matched exactly: the figure that predicts short picks.
LPN	License plate number: the scannable ID on a pallet or case.
RTV	Return to vendor: damaged or non-conforming stock sent back for credit.

01 • EXECUTIVE SUMMARY

THE RECORD IS BEING CORRUPTED AT THE FRONT DOOR

Northstar's inventory problems are not random. Across 12 months of illustrative data, most short picks, emergency replenishments and write-downs trace to **a small number of repeatable mechanisms**: wrong pack fields in the item master, reserve stock put away without a location scan, and replenishment settings in the wrong unit of measure. Each is fixable, and each keeps producing cost until it is fixed.

WMS HEALTH SCORE

47 / 100

Needs attention · 48 checks in 8 areas

MEASURABLE ANNUAL EXPOSURE

≈ \$455K

Cost visible in the 12-month data

RECOVERABLE PER YEAR

≈ \$253K

At stated recovery rates, once fixes are in place

ONE-TIME ITEMS

\$41K · \$37K

Stock at risk · vendor credit to claim

What matters most

#	FINDING	SEVERITY	RECOVERABLE / YR
F1	Case-pack and unit-of-measure fields are wrong on 267 SKUs	● CRITICAL	\$94K
F6	Short picks are concentrated, and most are an accuracy problem, not a stock-out	● HIGH	\$22K
F3	Replenishment min/max settings generate avoidable emergency work	● HIGH	\$38K

These three account for \$154K of the \$253K recoverable. F1 is rated critical because a single wrong field creates a variance on every receipt of that item, indefinitely, and because it feeds F2, F3 and F6.

What we recommend

- **Within 30 days:** enforce location scans at putaway, make counts blind, require real reason codes and approval on adjustments, and correct the 50 highest-value pack fields. None of these needs capital or a software change request.
- **Within 90 days:** correct all 267 pack and UOM fields, restate replenishment min/max in the pick unit, clear 1,126 unusable locations, and put 11 KPIs on a weekly review with named owners.

THE ACCURACY NUMBER IS OPTIMISTIC

Northstar reports 98.6% inventory accuracy. That figure nets overages against shortages at site level. Recomputed from the same count file at location level with no tolerance, it is **93.1%**. The difference is not a rounding question. It is why pickers short at locations the system calls stocked.

WHAT WE COULD NOT PRICE

Lost sales and customer chargebacks from short picks, over-ordering on understated SKUs, and expiry risk on product sitting in holds. These are real, and they are excluded from every total rather than estimated without the data.

Illustrative sample. Company and figures are fictional.

02 · CONTEXT

FACILITY PROFILE, OBJECTIVES AND METHODOLOGY

Operational profile

Company	Northstar Distribution (fictional consumer goods distributor)
Facility	250,000 sq ft; 2 shifts; 250 operating days
Active SKUs	18,000; cases and eaches
Locations	31,480: 9,420 pick faces, 21,700 reserve pallet positions, 360 dock, staging and QA
Throughput	3.5M order lines a year ($\approx$ 14,000 a day)
Inventory	$\approx$ \$38M at cost
Systems	Conventional tier-2 WMS with RF handhelds; ERP interface for POs, receipts and on-hand
Data period	1 July 2025 – 30 June 2026 (12 months)

Symptoms reported at scoping

- Inventory discrepancies that return after every count
- Heavy emergency replenishment, especially on second shift
- Short picks at locations the WMS shows as stocked
- Reserve congestion and pallets staged on the floor
- Adjustments nobody can explain at month-end

Objectives

- Identify the mechanisms behind the symptoms, not only their size
- Put an annual figure against each, from Northstar's own volumes and rates
- Assign every finding an owner and a fix
- Leave Northstar able to re-run the checks without outside help

Data received (read-only exports)

Item master and UOM table with change log · PO, ASN and receipt lines · putaway, move and replenishment transactions · pick and short-pick transactions · location master and on-hand snapshot · cycle counts · adjustment log with user and reason · hold and status history · WMS–ERP interface log. Twelve months; CSV. No system access.

Tests applied

Receipt-ratio test	Variance $\div$ cases received, by SKU and vendor. A constant is a pack field.
Transaction replay	Rebuild balances from a trusted count; find the first row that breaks.
Location reconciliation	Location master against the rack drawing; stock in inactive records.
Adjustment decomposition	Gross vs net, reason codes, users, repeat direction.
Count recomputation	Accuracy restated at location level; count vs post timing.
Short-pick Pareto	By SKU, zone, shift; stock-out vs record error.
Status aging	Holds by age, reason and owner; receipt-to-available time.

The standard for a finding

An anomaly becomes a finding only if it **disagrees** with another record or the floor, **has a shape** (it recurs), has a **named cause** (a field, rule or step), has an **owner**, and has a **number**. A 400-location spot count was carried out by Northstar staff to a sample design supplied with the data request.

LIMITS OF THIS AUDIT

A data audit sees what the records show. It cannot see theft that leaves no transaction, physical damage nobody recorded, or rack and safety conditions, and it does not replace a physical inventory or a compliance inspection. Where the extracts could not explain an anomaly, it is listed as an open question rather than written up as a finding. The 400-location spot count is a sample: it confirms the pattern in F2 but does not measure it for the whole building.

03 • OVERALL HEALTH

WMS AND WAREHOUSE HEALTH SCORE

47 / 100

NEEDS ATTENTION

Scored against the 48 checks of the WMSAudit checklist, grouped in eight areas. The weakest areas, **adjustments** and **item master**, are the ones that create and then hide errors. The strongest, **interfaces**, is the one most often blamed.

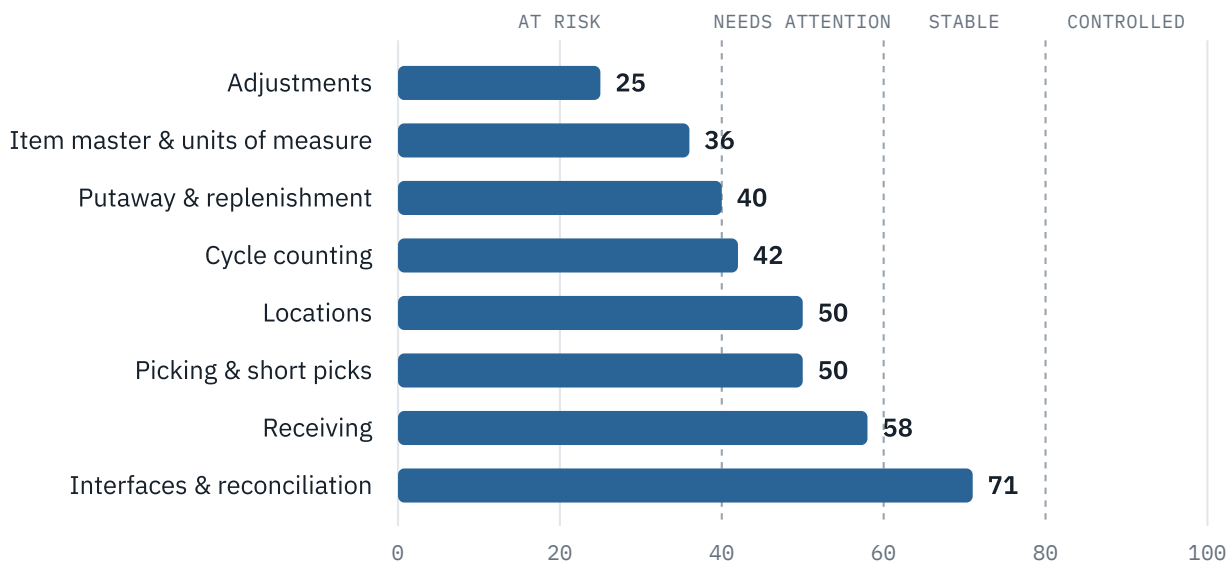


Figure 1 • Score by area (points earned ÷ points available × 100). Dashed lines mark the band boundaries at 40, 60 and 80.

AREA	CHECKS	PASS (2)	PARTIAL (1)	FAIL (0)	POINTS	SCORE
Receiving	6	2	3	1	7 / 12	58
Item master & units of measure	7	1	3	3	5 / 14	36
Locations	6	1	4	1	6 / 12	50
Putaway & replenishment	5	1	2	2	4 / 10	40
Picking & short picks	5	2	1	2	5 / 10	50
Cycle counting	6	1	3	2	5 / 12	42
Adjustments	6	0	3	3	3 / 12	25
Interfaces & reconciliation	7	3	4	0	10 / 14	71
Overall	48	11	23	14	45 / 96	47

How it is scored. Each check scores 2 when the control exists and the data shows it working, 1 when it exists but the data shows gaps, and 0 when it is absent or failing. Bands: below 40 at risk, 40–59 needs attention, 60–79 stable, 80+ controlled. The score is a way to rank where to look, not a benchmark against other warehouses; no industry comparison is implied.

04 • FINDINGS OVERVIEW

TEN FINDINGS, RANKED

#	FINDING	SEVERITY	EFFORT	MEASURABLE / YR	RECOVERABLE / YR
F1	Case-pack / UOM master errors	● CRITICAL	Low–medium	\$126K	\$94K
F3	Min/max calibration	● HIGH	Medium	\$76K	\$38K
F5	Manual adjustment volume	● HIGH	Low	\$60K	\$24K
F6	Short-pick concentration	● HIGH	Medium	\$72K	\$22K
F2	Reserve / pick-face mismatches	● HIGH	Low–medium	\$27K	\$19K
F9	Holds and receiving-to-available delay	● HIGH	Low–medium	\$34K	\$17K
F7	Reserve cube utilization	● MEDIUM	High	\$50K	\$30K
F8	Repeat cycle-count discrepancies	● MEDIUM	Low	\$9K	\$8K
F4	Duplicate / obsolete locations	● MEDIUM	Low–medium	—	—
F10	Exception ownership and reporting	● MEDIUM	Low	—	—
Total (one-time items excluded)				\$455K	\$253K

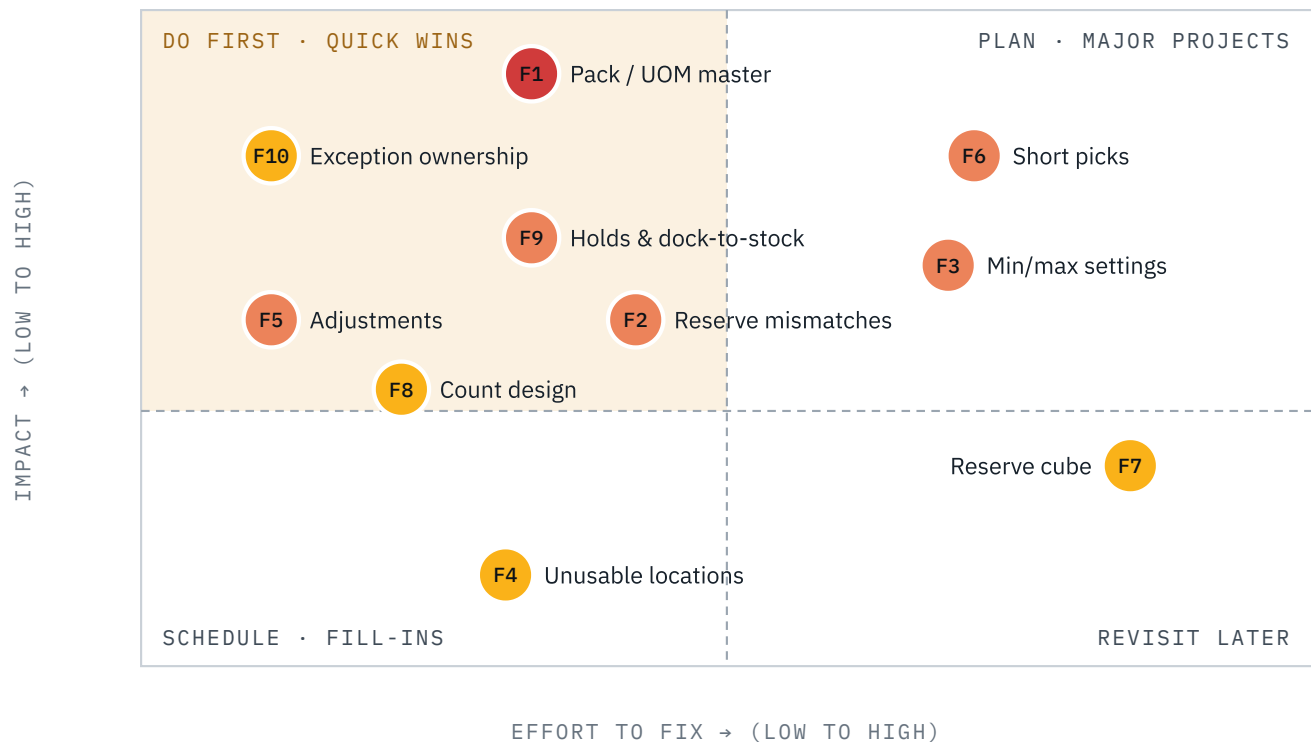


Figure 2 • Priority matrix. Impact combines recoverable value, severity and how many other findings depend on the fix; effort reflects configuration, data and labor needed. Color and label both show severity: ● CRITICAL ● HIGH ● MEDIUM.

05 • FINDINGS IN DETAIL

FINDINGS, EVIDENCE AND ROOT CAUSES

F1 Case-pack and unit-of-measure fields are wrong on 267 SKUs

● CRITICAL ITEM MASTER & UNITS OF MEASURE EFFORT: LOW-MEDIUM

EVIDENCE IN THE DATA

- Receipt-ratio test: 212 SKUs show the same per-case variance on at least three receipts in the period (e.g. SKU 40-11873: master case pack 14, vendor ships 12, -2 units on every case across 31 receipts).
- 38 SKUs have the inner-pack quantity in the case-pack field (ratio of physical to recorded exactly equals inners per case).
- 17 SKUs received in cases carry a case pack of 1, a migration default from the 2024 WMS upgrade.
- Net write-downs on these SKUs: 21,480 units, 94% coded COUNT VAR.

ROOT CAUSE

No owner or change control for pack fields; vendor pack changes are not captured at receipt; migration defaults never reviewed.

RECOMMENDATION

Correct the 267 fields with evidence from receipts; restrict pack-field edits to inventory control; add a monthly per-case variance report by vendor; verify pack at first receipt for new items and vendors.

MEASURABLE (ANNUAL)

21,480 units written down × \$5.85 avg cost

\$125,658

RECOVERABLE (ANNUAL)

Measurable × 75% of recurrence stopped once fields are corrected

\$94,243

UNMONETIZED RISK

Understated SKUs drive over-ordering and overflow; not monetized without purchase-order data.

F2 Reserve locations do not hold what the WMS says they hold

● HIGH PUTAWAY & REPLENISHMENT EFFORT: LOW-MEDIUM

EVIDENCE IN THE DATA

- 3,420 of 96,800 putaway confirmations (3.5%) were keyed rather than scanned; 61% of those on second shift, 44% by five users.
- Spot count of 400 reserve locations: 47 (11.8%) held a different item or quantity than the WMS.
- 4,960 replenishment tasks in the period were cancelled or re-pointed after the directed pallet was not found.

ROOT CAUSE

Location scan is optional at putaway confirmation; overrides are not reported by user or shift.

RECOMMENDATION

Enforce location scan at putaway (configuration change); daily keyed-confirmation report by user; targeted count of aisles with the highest keyed rate.

MEASURABLE (ANNUAL)

4,960 failed replenishment tasks × 12 min search = 992.0 h × \$27.50

\$27,280

RECOVERABLE (ANNUAL)

Measurable × 70% reduction after scan enforcement

\$19,096

UNMONETIZED RISK

Mislocated reserve stock feeds phantom pick-face balances and short picks (see F6).

05 • FINDINGS IN DETAIL • CONTINUED

F3 Replenishment min/max settings generate avoidable emergency work

● HIGH PUTAWAY & REPLENISHMENT EFFORT: MEDIUM

EVIDENCE IN THE DATA

- 41,600 emergency replenishments in the period (166 per operating day); 58% on 1,900 SKUs.
- 1,284 each-picked faces have min/max stated in cases; 2,310 faces have a max below one inbound case, forcing a partial case back to reserve.
- Min/max values last reviewed at go-live; velocity has shifted on 34% of A-class SKUs since.

ROOT CAUSE

Min/max set once at implementation in the wrong unit of measure and never re-slotted to current velocity.

RECOMMENDATION

Restate min/max in pick UOM; set max to at least one case where cube allows; recalculate from 13-week velocity quarterly.

MEASURABLE (ANNUAL)	
41,600 emergency replenishments × 4 extra min vs planned = 2,773.3 h × \$27.50	\$76,267
RECOVERABLE (ANNUAL)	
Measurable × 50% fewer emergency replenishments	\$38,133
UNMONETIZED RISK	
Pickers waiting on empty faces; congestion in forward aisles during peaks.	

F4 1,126 locations do not correspond to a usable physical position

● MEDIUM LOCATIONS EFFORT: LOW-MEDIUM

EVIDENCE IN THE DATA

- 1,126 of 31,480 location records have no valid physical coordinate after the 2025 re-rack of aisles 40–52.
- 214 of those still carry on-hand: 6,930 units.
- 402 pairs of locations share a physical coordinate (duplicate labels after re-numbering).

ROOT CAUSE

Re-rack was completed physically without a matching location-master clean-up; no control prevents on-hand in inactive locations.

RECOMMENDATION

Count and relocate the 214 balances; deactivate unmapped records; block putaway and adjustment to inactive locations; re-label duplicates.

ONE-TIME BALANCE AT RISK	
6,930 units in unmapped locations × \$5.85	\$40,541
UNMONETIZED RISK	
Some of this balance is likely phantom; the recoverable share is unknown until counted.	

05 • FINDINGS IN DETAIL • CONTINUED

F5 Adjustments are high-volume, unexplained and unapproved

● HIGH ADJUSTMENTS EFFORT: LOW

EVIDENCE IN THE DATA

- 28,940 adjustment transactions; gross value \$1.94M against net -\$212K (gross-to-net ratio 9.2 : 1).
- 71% coded COUNT VAR or OTHER; 9% have no reason code.
- 19 users hold adjustment rights; 4 users post 63% of volume; no value threshold requires approval.

ROOT CAUSE

Adjustment is the default resolution for any discrepancy; reason codes and approval are not enforced by configuration.

RECOMMENDATION

Require a mechanism-level reason code; approval above \$250; reduce adjustment rights to inventory control; weekly gross-and-net report.

MEASURABLE (ANNUAL)

28,940 adjustments × 4 min processing = 1,929.3 h × \$31.00

\$59,809

RECOVERABLE (ANNUAL)

Measurable × 40% lower adjustment volume

\$23,924

UNMONETIZED RISK

Weak audit trail for year-end inventory; the net write-down overlaps F1 and is not counted twice.

F6 Short picks are concentrated, and most are an accuracy problem, not a stock-out

● HIGH PICKING & SHORT PICKS EFFORT: MEDIUM

EVIDENCE IN THE DATA

- 52,500 short lines of 3.5M (1.50%); 44% in zone C each-pick shelving; second-shift short rate is 1.9× first shift.
- 620 SKUs (3.4% of active) account for 51% of short lines.
- 68% of shorts occurred where the WMS showed on-hand at or above the ordered quantity.
- Short picks do not trigger a count task; 38% close with no reason.

ROOT CAUSE

Inaccurate pick-face balances (F1, F2, F3) surface as shorts; the short-pick process corrects the order, not the record.

RECOMMENDATION

Auto-generate a count on every short; weekly Pareto of shorts by SKU, zone and shift; trace the top 50 SKUs upstream to receiving and pack data.

MEASURABLE (ANNUAL)

52,500 short lines × 3 min handling = 2,625 h × \$27.50

\$72,188

RECOVERABLE (ANNUAL)

52,500 × 68% accuracy-driven × 45% eliminated = 16,065 lines × 3 min × \$27.50/h

\$22,089

UNMONETIZED RISK

Fill-rate misses, customer chargebacks and lost sales; not monetized without customer terms and margin data.

05 • FINDINGS IN DETAIL • CONTINUED

F7 Reserve capacity is consumed by partial pallets while overflow is rented

● MEDIUM LOCATIONS EFFORT: HIGH

EVIDENCE IN THE DATA

- WMS shows 88% of 21,700 reserve positions occupied; 34% of occupied positions hold less than 40% of pallet cube.
- 2,960 SKUs are split across three or more reserve positions.
- An average of 300 pallets is held at a third-party overflow site; 140 pallets a day are staged on the floor.

ROOT CAUSE

Putaway rules direct partial pallets to full-height positions; no consolidation program; location capacity fields left at default.

RECOMMENDATION

Run a consolidation wave on SKUs in three or more positions; add half-height positions for partials; correct capacity fields so directed putaway sees real space.

MEASURABLE (ANNUAL)

300 overflow pallets × \$14.00/pallet/month × 12

\$50,400

RECOVERABLE (ANNUAL)

Measurable × 60% of overflow brought back in-house

\$30,240

UNMONETIZED RISK

Congestion and travel from floor staging; safety exposure in aisles.

F8 The count program overstates accuracy and manufactures variances

● MEDIUM CYCLE COUNTING EFFORT: LOW

EVIDENCE IN THE DATA

- Reported accuracy 98.6% is net units at site level; recomputed location-level hit rate from the same 61,200 counts is 93.1%.
- 1,480 locations failed three or more counts in the period.
- 27% of 4,220 variances reversed on the next count; the system quantity is captured at post time, not count time.
- Counts in zone C display the system quantity (not blind).

ROOT CAUSE

Count design (non-blind, post-time snapshot) and KPI definition, not counter effort.

RECOMMENDATION

Make all counts blind; snapshot system quantity at count time; report untoleranced location accuracy alongside the current KPI.

MEASURABLE (ANNUAL)

1,139 timing-induced variances × 15 min recount and reversal = 284.75 h × \$31.00

\$8,827

RECOVERABLE (ANNUAL)

Measurable × 90% eliminated by count-time snapshot

\$7,945

UNMONETIZED RISK

Management is steering by an accuracy figure 5.5 points higher than the location-level result.

05 • FINDINGS IN DETAIL • CONTINUED

F9 Inventory is trapped in hold statuses and slow to become available● **HIGH** RECEIVING EFFORT: LOW-MEDIUM

EVIDENCE IN THE DATA

- 1,870 LPNs in QA, DMG, RTV or HOLD status: \$412,300 at cost; 38% aged over 60 days; 11% carry no reason.
- An estimated \$61,000 of aged holds is vendor damage eligible for return-to-vendor credit.
- Median receipt-to-available time 19.5 hours against an 8-hour internal target; 22% of receipts took over 48 hours.

ROOT CAUSE

No owner or aging review for exception statuses; putaway queue is worked in arrival order, not by demand.

RECOMMENDATION

Weekly hold-aging review with named owners; RTV claims on the eligible balance; prioritize putaway for SKUs with open demand.

MEASURABLE (ANNUAL)

$\$412,300 \times 38\% \text{ aged} = \$156,674 \times 22\% \text{ carrying cost}$

\$34,468

RECOVERABLE (ANNUAL)

Carrying cost $\times$ 50% of aged holds cleared

\$17,234

ONE-TIME RECOVERY

$\$61,000 \text{ RTV-eligible} \times 60\% \text{ expected credit}$

\$36,600

UNMONETIZED RISK

Expiry on dated product; stock unavailable to orders while physically in the building.

F10 No one owns exceptions, so each one is fixed locally and none is fixed at source● **MEDIUM** INTERFACES & RECONCILIATION EFFORT: LOW

EVIDENCE IN THE DATA

- None of the nine exception reports reviewed has a named owner or a review cadence.
- Findings F1–F9 each cross at least two departments; none appears on a management KPI.
- WMS–ERP reconciliation is at total value only; 23 item-level differences have persisted for three or more periods.

ROOT CAUSE

Controls were designed per department; no cross-functional inventory-integrity review exists.

RECOMMENDATION

A 30-minute weekly inventory-integrity review with owners for each exception report; add the KPI set in section 08 to the operations scorecard.

FINANCIAL EXPOSURE

Not monetized separately; value is realized through F1–F9.

—

UNMONETIZED RISK

Without owners, corrections made under this plan tend to decay; the same mechanisms rebuild the same variances.

06 • FINANCIAL IMPACT

ESTIMATED ANNUAL FINANCIAL IMPACT

Measurable exposure is ≈ **\$455K a year**. Of that, ≈ **\$253K** (about 56%) is expected to stop once the recommendations are in place. The rest is structural: some adjustments and shorts will always occur.

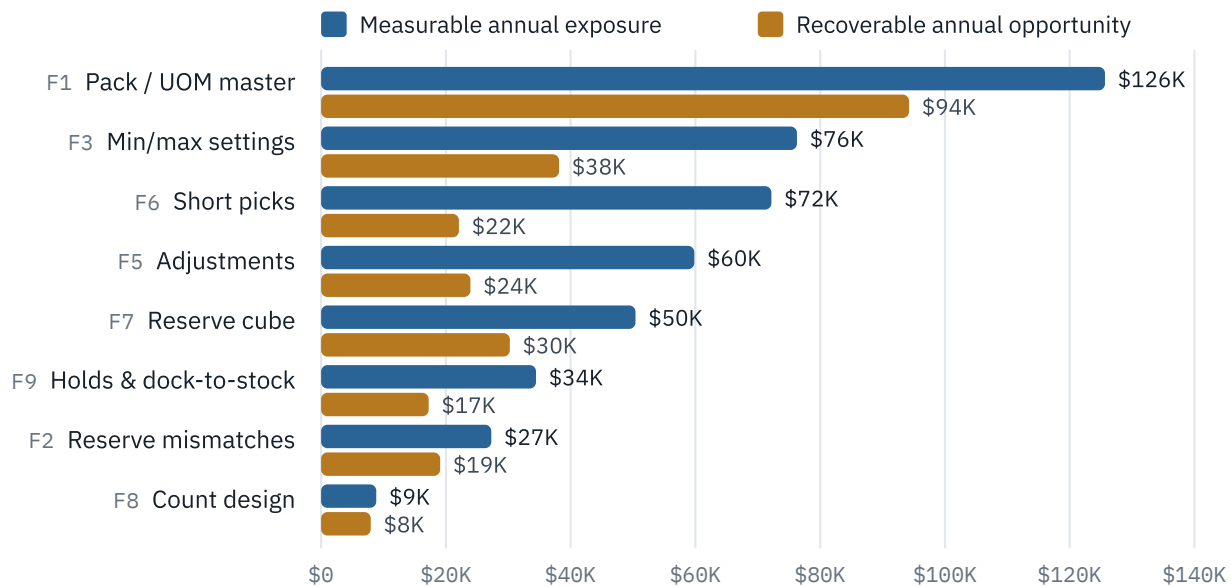


Figure 3 • Annual figures by finding. F4 and F10 carry no annual figure and are omitted from the chart.

#	FINDING	MEASURABLE / YR	RECOVERABLE / YR	ONE-TIME
F1	Case-pack / UOM master errors	\$125,658	\$94,243	—
F2	Reserve / pick-face mismatches	\$27,280	\$19,096	—
F3	Min/max calibration	\$76,267	\$38,133	—
F4	Duplicate / obsolete locations	—	—	\$40,541
F5	Manual adjustment volume	\$59,809	\$23,924	—
F6	Short-pick concentration	\$72,188	\$22,089	—
F7	Reserve cube utilization	\$50,400	\$30,240	—
F8	Repeat cycle-count discrepancies	\$8,827	\$7,945	—
F9	Holds and receiving-to-available delay	\$34,468	\$17,234	\$36,600
F10	Exception ownership and reporting	—	—	—
Total		\$454,897	\$252,904	see note

One-time items are not additive. F4 is a balance of \$40,541 sitting in unusable locations: some of it is real stock to recover and some is likely phantom, so it is a balance at risk, not a gain. F9 is an expected vendor credit of \$36,600. **Shared assumptions:** average unit cost \$5.85; loaded labor \$27.50/h (associate) and \$31.00/h (inventory control); carrying cost 22% a year. Formulas for every figure appear with each finding. The F5 net write-down overlaps F1 and is counted once. Totals are computed before rounding.

07 • ACTION PLAN

QUICK WINS AND A 30/60/90-DAY ROADMAP

Quick wins: achievable within 30 days, no capital required

#	ACTION	OWNER	TYPE
F2	Make location scan mandatory at putaway confirmation	WMS admin	Configuration
F8	Make all counts blind; capture system quantity at count time	WMS admin	Configuration
F5	Require specific reason codes; approval above \$250; cut adjustment rights to inventory control	IC manager	Configuration + policy
F6	Generate a count task automatically on every short pick	WMS admin	Configuration
F1	Correct the 50 highest-value pack fields using receipt evidence	IC analyst	Data
F9	Assign owners to every hold status; file RTV claims on the eligible balance	Receiving lead	Process
F10	Start a 30-minute weekly inventory-integrity review	Ops manager	Meeting

Corrective-action roadmap

DAYS 1–30

STOP NEW ERRORS ENTERING

- The seven quick wins in the table above
- Daily keyed-confirmation and short-pick reports live F2 F6
- Baseline KPIs frozen for comparison all

DAYS 31–60

CORRECT THE DATA

- Remaining 217 pack and UOM fields corrected; first-receipt pack check for new items F1
- Min/max restated in pick UOM on 1,284 faces; max $\geq$ one case on 2,310 faces where cube allows F3
- 214 stocked unmapped locations counted and cleared; 1,126 records deactivated F4
- Top-50 short SKUs traced upstream F6
- Putaway queue prioritized by open demand F9

DAYS 61–90

LOCK IN AND RE-MEASURE

- Min/max recalculated from 13-week velocity for all faces F3
- Reserve consolidation wave; half-height positions for partials F7
- Item-level WMS–ERP reconciliation monthly F10
- KPI set on the operations scorecard with owners F10
- Re-run the receipt-ratio, adjustment and count tests against the baseline all

08 • MEASUREMENT

KPI BASELINE, TARGETS AND CONTROL CADENCE

KPI	BASELINE	90-DAY TARGET	REVIEW	FINDING
Location accuracy (untoleranced hit rate)	93.1%	≥ 97.0%	Weekly	F8
Reported net unit accuracy	98.6%	Report alongside, not instead	Weekly	F8
Short-pick rate (lines)	1.50%	≤ 0.90%	Daily	F6
Emergency replenishments per day	166	≤ 80	Daily	F3
Keyed putaway confirmations	3.5%	< 0.5%	Daily	F2
Adjustments per month	2,412	≤ 1,450	Weekly	F5
Generic reason-code share	71%	< 15%	Weekly	F5
Receipt-to-available (median)	19.5 h	≤ 8 h	Daily	F9
Holds aged > 60 days (value)	\$156.7K	< \$25K	Weekly	F9
Unmapped locations holding stock	214	0	Monthly	F4
SKUs with constant per-case variance	212	< 10	Monthly	F1

Targets are set from Northstar's own baseline and the fixes in this plan, not from industry benchmarks. The reported net accuracy figure is kept, but it is always shown next to the location-level figure.

Recommended control cadence

CADENCE	OWNER	WHAT IS REVIEWED
Daily	Inventory control lead	Short picks with auto-count results · keyed confirmations by user · emergency replenishments · receipts not available after 8 h
Weekly	Operations manager	Adjustment gross and net by reason and user · hold aging by owner · location accuracy (untoleranced) · top-20 short SKUs
Monthly	Inventory control + purchasing	Per-case variance by vendor · item-master change log review · inactive locations with stock · WMS–ERP item-level reconciliation
Quarterly	Operations director + finance	Min/max recalculation from 13-week velocity · reserve consolidation · adjustment rights review · KPI targets reset
Annually	Independent reviewer	Full data audit of receiving, item master, locations, adjustments and interfaces

09 • RETURN AND SCOPE

EXPECTED RETURN, AND WHAT A REAL ENGAGEMENT EXAMINES

Expected return (illustrative)

WMSAudit fixed fee	\$1,500–\$2,500
Internal implementation effort 420 h × \$31.00	\$13,020
Total cost (upper fee)	\$15,520
Recoverable run-rate once fixes are complete	\$252,904 / yr
Year-one realization at 50% (phased over the 90-day plan and ramp-up)	\$126,452
Year-one recoverable ÷ total cost	≈ 8×

Sensitivity. If every recovery rate turned out half of what is assumed, the run-rate would be \$126,452 a year and year one \$63,226, still well above the cost. The one-time vendor credit (\$36,600) is excluded.

This is not a forecast or a promise. It shows how the return is reasoned. A real report prices each finding from the client's own volumes, costs and rates, and the result depends on what the client implements.

What a real WMSAudit engagement examines

- **Receiving:** PO vs ASN vs received vs putaway, by vendor, item and receiver
- **Item master:** case and inner packs, UOM conversions, dimensions, weights, change log
- **Locations:** coordinates, unmapped and orphaned records, pick-face assignments, capacity
- **Putaway and replenishment:** directed vs actual, overrides, min/max and UOM
- **Segregation** (if in scope): hazard classes against slotting, against the client's own rules
- **Adjustments:** volume, direction, users, reason codes, repeat items
- **Counts:** design, timing and the accuracy definition
- **Interfaces:** failed and stuck messages, WMS–ERP differences

How it works

- A written data request naming exact reports and fields; CSV or Excel
- Read-only: no logins, VPN, installed software or changes to the WMS
- One analyst end to end; mutual NDA before any data moves
- Report in 10 business days from receipt of extracts, with evidence files, the queries used, and a 60-minute readout

It is not a compliance certification, a physical inventory, or the front half of an implementation project.

FIND OUT WHAT YOUR SYSTEM IS GETTING WRONG.

This report is a sample. Yours would use your items, your vendors, your locations and your costs, with the evidence attached to every finding so your team can check it rather than trust it.

01 • 20-MINUTE CALL

Bring one number you've never been able to explain. We'll talk through where it probably comes from.

02 • FIXED QUOTE

Scope and fee agreed before work starts: \$1,500–\$2,500, not billed by the hour.

03 • REPORT IN 10 DAYS

From the day extracts arrive. Findings ranked by annual dollar impact, with owners and fixes.

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Illustrative sample. Northstar Distribution is a fictional company, and all data, findings and figures in this document are invented to demonstrate method and format. They do not describe any real client or engagement and are not a guarantee or prediction of results. WMSAudit is operated by Ravenspire LLC.