Crisis Flow

CrisisFlow Illustrated Decision Case

An industrial equipment company responds to a port disruption

This case follows a manager from an initial disruption assessment to a revised response and a costed preparation lesson. It shows why the lowest financial-impact estimate may not protect business continuity, why yesterday's decision must be revisited, and why recovery needs more than a single reopening date.

Hurricane Beryl and Port Houston provide the historical context. Port Houston reported that its terminals were closed on July 8 and 9, 2024. The company, relationships, contracts, operating assumptions, choices, and results below are illustrative. Case days are scenario days, not a reconstruction of the actual port closure.

The decision at the start

An industrial-equipment company depends on an inbound gateway for components. The planning case starts with a five-day interruption of primary flow and two days of opening inventory. Management wants to protect priority customer orders while remaining within a $1.5 million response allowance.



A disruption at the gateway can reach production and customer commitments. An alternate route only helps if receiving and transport arrangements are usable.

What the manager needs to establish

- Which sites and orders depend on the interrupted flow, and which dependencies remain unverified.
- Whether available inventory and capacity can cover the action window.
- Which alternatives can be executed in time, at what cost, and with whose approval.
- Which customer commitments are essential and how recovery will be measured.

The illustrated service target is at least 80% of priority orders on time during the interruption. It is a case assumption, not a recommended service level for every company. A real engagement must agree the relevant commitments and acceptable shortfall.

Compare the initial responses

The comparison separates financial impact from the spending allowance and the service requirement. At the initial settings, alternate-port routing is the available response that meets the stated constraints. Several cheaper-looking options fail the continuity requirement.

Response	Total impact	Priority on time	Orders cleared	Result
No additional response	$1,047,500	40%	Day 22	Service shortfall
Reposition inventory	$990,000	60%	Day 18	Service shortfall
Alternate supplier	$1,506,250	40%	Day 18	Service shortfall
Supplier plus inventory	$1,547,000	77.5%	Day 14	Service shortfall
Alternate port	$1,503,000	85%	Day 15	Meets requirements
Port plus inventory	$1,704,500	97.5%	Day 11	Budget exceeded

Illustrative estimates under the initial conditions. Other combinations are also examined in the interactive case. Figures are not realized customer outcomes.

Why choose the more expensive response

Doing nothing has a lower modeled financial impact than alternate-port routing, but only 40% of priority orders arrive on time. Repositioning inventory alone reaches 60%. Management's continuity requirement changes which alternatives are acceptable. The decision is not a claim that greater response spending always saves money.

The selected alternate-port response projects 85% of priority orders on time and outstanding orders cleared by Day 15. Its $1,503,000 economic impact includes $1,200,000 of response spending, $250,500 of lateness penalties, and $52,500 of incremental catch-up cost. There is no canceled-order margin loss on this path.

Its $1,252,500 budget requirement covers response spending and incremental catch-up cost. Lateness penalties contribute to economic impact but are not part of this example's response allowance. The two totals answer different questions and should not be presented as interchangeable.

The approval record

The proposed record identifies the operations decision owner, the finance approver, the route execution owner, and the customer-service owner. It preserves the selected response, alternatives considered, service target, cost scope, assumptions, and next review trigger. These are suggested role assignments for the example, not actual approvals or executed commitments.

Reassess when the disruption changes

On Day 4, the case records a longer interruption and lower alternate-supplier capacity. The closure assumption rises from five to seven days. The platform preserves the first four days and the selected alternate-port commitment before projecting the remaining consequences. It does not restart the decision as if nothing had been spent.

Measure	Original forecast	Day 4 updated forecast
Total economic impact	$1,503,000	$1,897,750
Priority orders on time	85%	73.2%
Production back to plan	Day 7	Day 9
All outstanding orders cleared	Day 15	Day 23

Separate the cause from the headline

For this selected response, the $394,750 deterioration is attributed to the longer closure. The lower alternate-supplier capacity contributes no incremental effect because that supplier is not used on this path. The interaction contribution is also zero. The example therefore does not describe every deterioration as a supplier effect merely because a supplier update arrived.

The attribution explains changes inside the illustrative scenario. It is not an empirical causal estimate for a real company. In an operating setting, the team would need to distinguish verified changes from revised assumptions and reconcile the record with actual execution information.

Existing spending is not a fresh budget

The case has recorded $1,200,000 of spending by Day 4. Continuing the original response now falls below the service target. Cutting its remaining volume or canceling remaining deliveries does not erase that spending and produces a worse service projection. The manager can see the shortfall rather than receiving a recommendation that pretends every requirement remains satisfied.

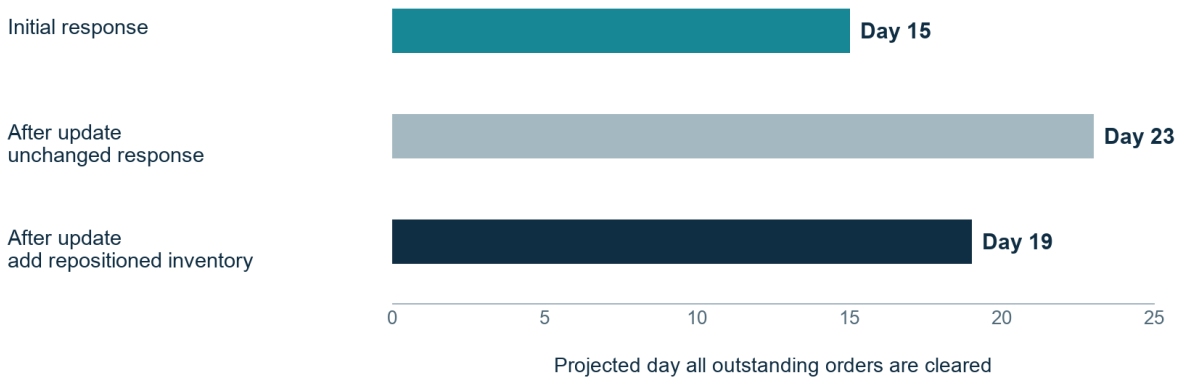
A response that cannot meet the current constraints should prompt a decision about those constraints. Here the practical question is whether management will authorize additional spending to protect priority orders, accept a lower service level, or identify an alternative not available in the current case.

Make the revised choice and track recovery

Adding repositioned inventory to the existing alternate-port response improves projected priority service to 89.3% and brings backlog clearance forward to Day 19. Under the original $1.5 million allowance, that combination requires additional approval. Raising the example allowance to $2 million makes it available, but it does not make the choice costless.

Day 4 choice	Continue current response	Add repositioned inventory
Total economic impact	$1,897,750	$2,021,750
Response budget required	$1,285,000	$1,666,250
Priority orders on time	73.2%	89.3%

The added action increases modeled economic impact by $124,000. It requires $166,250 beyond the original allowance. Its benefit is stronger continuity and four days earlier clearance of outstanding orders. Management must decide whether those benefits justify the additional cost.



Projected milestones, not observed recovery dates. The updated branches share the same disruption conditions and prior commitment.

Port reopening, normal inbound flow, production back to plan, and clearance of customer backlog are different milestones. After the update, the case projects reopening on Day 8 and normal inbound flow on Day 10. The revised response restores production to plan on Day 9, but outstanding orders remain until Day 19. Reporting only reopening would hide that remaining business burden.

Turn experience into a costed preparation lesson

A separate next-cycle comparison asks whether an extra day of inventory held before the disruption would strengthen resilience. It holds the updated shock conditions and the original alternate-port response constant. This is a preparation comparison, not an action that can travel back in time and repair the current event.

Next-cycle comparison	Current preparation	Additional inventory
Opening inventory	200 units	300 units
Priority orders on time	73.2%	89.3%
Economic impact before preparation expense	$1,897,750	$1,574,250
Added preparation expense	$0	$5,000
Economic impact including that expense	$1,897,750	$1,579,250

The comparison projects $318,500 less economic impact after the $5,000 preparation expense. The expense represents 30 days of illustrative holding, financing, and preparation cost. It excludes the inventory asset value. The combined response and preparation budget requirement is $1,265,000, within the original $1.5 million allowance.

What would justify adopting the lesson

Operations would need to confirm that the added stock is usable and correctly located. Finance would review working capital, carrying cost, obsolescence, and the consequence of tying up cash. Procurement would check replenishment and supplier constraints. The team should test other plausible disruptions and demand conditions before turning this single comparison into an inventory policy.

The review record should retain the question, comparison, cost scope, proposed owner, review date, and evidence still needed. A manager marking a lesson reviewed is not evidence of customer savings or completed implementation. A later operating record is needed to assess whether the change actually improved performance.

Read the evidence at the appropriate level

The historical source establishes the Beryl terminal closure only. The numerical comparisons are calculated from the current interactive demonstration, checked on October 14, 2026. The case discloses selected planning assumptions, business constraints, and results. Proprietary calculation details are not needed to understand the decision, and the illustration is not a validated estimate for any prospective customer.

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Explore and change the same scenario online