here’s a crisp, end-to-end workflow for **Gazelle** (resource seeker side). it’s written so engineers can build it and ops can run it during an incident.

**0) principles**

* **fast first**: complete request < 60s; everything else is optional.
* **low-friction**: no account required; OTP by SMS when needed.
* **fairness & safety**: inventory holds expire; rate-limited reservations; ADA & multilingual.
* **offline-aware**: all key steps work via SMS fallback.

**1) intake (zip → transport → radius → products)**

1. **Zip code**
   * UI: single field + “Use my location”.
   * Validation: USPS 5-digit; if GPS provided, reverse-geocode; store both.
   * If out of incident region, show “closest available outside zone” toggle.
2. **Transportation**
   * Q: “Do you have transportation to pick up water (and other supplies)?”
     + Options: I can pick up / I need delivery / I can’t drive but can walk/public transit.
   * If “delivery” → capture drop-off window preferences + safe-drop allowed? + accessibility notes.
3. **Geo scope**
   * Options: 1, 5, 10, 30, 50 miles (default 10).
   * For “no transport” → cap to 5 miles unless delivery is available.
4. **Products**
   * Categories (multi-select): Water (cases/1L/0.5L), Food (MREs), Hygiene, Power (chargers), Medical basics, Baby, Pet.
   * Quantity capture: per product, show sensible defaults (e.g., “Water: 1–5 cases”).
   * Stock filter: hide SKUs with zero inventory unless user chooses “Show all & join waitlist”.

**Call to action**: “Find resources” → search.

**2) search & match (inventory + eligibility rules)**

* Query nearest active **Sites** within radius, then **Partner Drivers** if delivery.
* Apply **eligibility** (optional rules toggled per incident):
  + Per-household limits (e.g., water ≤ 2 cases / 24h).
  + Vulnerability priority flags (seniors, medical needs) if user opts in.
* **Scoring** (to rank options):
  + Score = proximity weight + stock level weight + pickup window match + access notes match.
* Return **Match Cards**:
  + Site name + distance/time
  + Available SKUs (with real-time counts)
  + Earliest pickup window(s) / delivery windows
  + Accessibility: drive-thru, walk-up, ADA, language
  + “Reserve” button per site

Empty state:

* If no stock now → offer **Waitlist** (3h/6h alerts) and broaden radius suggestion.

**3) reservation flow (hold → confirm → timebox)**

When seeker taps **Reserve** on a site:

1. **Reservation details**
   * Show selected items + editable quantities (respect limits).
   * Pickup options (if site supports):
     + **Drive-thru**: license plate optional (speeds check-in).
     + **Walk-up**: ADA lane info if available.
     + **Proxy pickup**: add proxy name/phone (send them code).
   * Choose **pickup window** (list next 4 windows; show cutoff times).
2. **Identity & contact (lightweight)**
   * First name, last name (optional if SMS-only).
   * Mobile phone (required) → send **OTP** if first time.
   * Household size (optional; used for fairness analytics).
   * Language preference.
3. **Create hold**
   * Inventory engine creates **soft hold** (status: HELD) for selected SKUs.
   * **TTL** (time to live) for hold: default 15 minutes to finish checkout; after confirm, **pickup-by** deadline applies.
4. **Confirm reservation**
   * On confirm: status → RESERVED
   * Assign **Pickup Code** (short alphanumeric, e.g., GZ-7F2K), **QR**, and **pickup-by** deadline (e.g., 2 hours from window start or site policy).
   * Show map, entry instructions, and required ID (if any).
   * **Policy**: “If not checked in by pickup-by, items are released.”
5. **Notifications**
   * SMS immediately: “Reserved at {Site}. Code {GZ-7F2K}. {qty} {product}. Pickup {window}. Map: {link}.”
   * Reminder SMS: 30 min before window; escalation at window start.

**4) waitlist (3h / 6h alerts)**

If no current availability OR user opts to waitlist:

* Capture products + quantities + radius + transport + time horizon (3h or 6h).
* Save as **Subscription** with expiry (defaults to 24h).
* Trigger alerts when:
  + Stock for any matching site > threshold (e.g., ≥ 10 units) **AND**
  + Site is within user radius **AND**
  + User has not exceeded rate limit.
* Alert content: “Good news! {product} available at {Site} {X mi}. Reserve now: {1-tap link} (holds items for 10 min).”

**5) check-in & pickup (ops + seeker)**

**Seeker arrival:**

* Tap “I’m here” (geofence within 300m if location on) OR show code/QR.

**Staff app / scanner:**

* Scan QR or enter code → reservation lookup.
* Verify name/phone (or proxy).
* Mark as:
  + CHECKED\_IN → reduce **Committed Inventory**
  + FULFILLED on handoff
* If **no-show**:
  + Auto-release at pickup-by + grace (e.g., 15 min).
  + Status EXPIRED; inventory returns to AVAILABLE.

Edge cases:

* **Partial fulfill** (stock short): update line items; auto-offer waitlist for remainder.
* **Early arrival**: queue until window opens (site configurable).

**6) delivery variant (if seeker chose delivery)**

* After reservation, route to **Driver Pool**:
  + Auto-batch nearby orders; compute ETAs.
  + Confirmable delivery window to seeker via SMS.
* Handoff:
  + Proof options: photo at door, recipient code, or signature (site policy).
  + Status DELIVERED; if failed delivery → two retries or convert to pickup.

**7) post-flow messaging (always end with clear instructions)**

On confirmation screen + SMS:

* **Location & hours**  
  “Go to **{Site Name}**, {Address}. Hours: {hours}. Enter via {gate/lane}.”
* **Pickup instructions**  
  “Show this code **{GZ-7F2K}** or QR. If drive-thru, place code on dash.”
* **Check-in**  
  “Text ‘HERE’ to this number when you arrive or tap {link}.”
* **What to bring**  
  “No ID required” / “Bring photo ID” (site policy).
* **Modify/Cancel**  
  “Text ‘CHANGE’ to adjust qty/window or ‘CANCEL’ to release your items.”