PC-120 & FLOOD RESILIENCE

What it means for architects - and why it matters right now

THIS WEEK	*Wellington declared a state of emergency on 20 April 2026 after more than 70 mm of rain fell in a single hour — the worst flooding since 1976. This follows Cyclone Vaianu the week prior and a series of major flooding events across Auckland, the Hawke's Bay and Northland over the past 12 months. The frequency and severity of these events is accelerating. PC-120 is Auckland's direct policy response — and its natural-hazard provisions are already biting on resource consents.*

A. What PC-120 is doing (plain English)

PC-120 (Housing Intensification and Resilience) was publicly notified on 3 November 2025, replacing PC-78. It has two core goals:

- Deliver at least the same housing capacity as PC-78 (targeting intensification near centres, corridors, and rapid-transit stops), and
- Strengthen natural-hazard controls for coastal erosion, coastal inundation, flooding, landslides, and wildfires.

The natural-hazard provisions work by rewriting E36 – Natural Hazards and Flooding of the Auckland Unitary Plan into a risk-based framework (very high / high / medium / low hazard, and "significant / tolerable / acceptable" risk thresholds). Development in "tolerable" areas can proceed only where risk is reduced to an acceptable level through design and mitigation.

APRIL 2026	*Submissions closed 19 December 2025 (5,000+ received). Further submissions are expected to open 14 May 2026. Hearings before an Independent Hearings Panel (IHP) are underway in 2026. Final decisions are expected mid-2027. Critically: the natural-hazard provisions have immediate legal effect and are already being applied to resource consents NOW. On 19 February 2026, Cabinet announced legislative changes affecting PC-120's housing-density provisions — but Auckland Council's agreed principles explicitly retain the natural-hazard downzoning. The flood/coastal resilience rules are not under threat.*

B. Provisions with direct implications for architects

1. Mandatory site-specific hazard assessments

PC-120 requires a site-specific hazard assessment for any land exposed to coastal erosion, coastal inundation, or flooding. The assessment must set out a management approach proportionate to risk — including how risk will be reduced or kept tolerable. Architects can no longer treat this as an engineer-only task: assessment outputs (flood depths, overland flow paths, coastal inundation extents) must inform schematic design decisions.

2. Risk-based rules in E36 — Natural Hazards and Flooding

The rewritten E36 focuses on risk, not just map lines. Key obligations include:

- New development must not increase risk and, where practicable, must reduce it.
- Development must maintain floodplain and overland-flow conveyance.
- Natural features and non-structural mitigation are preferred over hard protection — but structural mitigation is still allowable where needed.
- Site layout must address safe access and egress during hazard events.
- Subdivision, use and development must not exacerbate flood hazards or expose vulnerable activities to unnecessary risk.

3. Tougher rules for urban floodplains

For urban floodplains, PC-120's E36 requires:

- New buildings with vulnerable activities (residential) to be outside the 1% AEP floodplain, OR within/above it only where habitable rooms are above flood levels and safe evacuation routes are provided.
- Redevelopment of already-vulnerable sites within the 1% AEP floodplain must minimise on-site risk, minimise risk to people upstream and downstream, and remedy or contribute to remedying flood hazards in the wider floodplain.

The "remedy or contribute to remedying" language is a planning hook that creates space for upselling better-than-neutral solutions such as upsized on-site detention that benefits the wider network.

4. Coastal inundation and sea-level-rise controls

In coastal storm-inundation areas:

- Habitable areas of new buildings (and substantial alterations) must sit above the 1% AEP coastal storm-inundation level plus 1 m sea-level rise.
- Buildings must be located and designed to minimise the need for hard protection structures, but where natural defences are insufficient, hard protection works can be considered.

The explicit 1 m sea-level-rise lens favours adaptive solutions — modular tank systems, adjustable barrier panels, upgraded pumps — that can be scaled over time.

5. Conveyance of overland-flow paths

E36 emphasises that subdivision, use and development must safely maintain the conveyance function of floodplains and overland-flow paths. This has direct architectural and specification consequences:

- Permanent solid flood fences across overland-flow paths don't comply unless designed with sufficient low-level openings or culverts.
- Deployable and removable flood barriers can comply because they normally preserve conveyance and only obstruct flow when a flood is imminent.
- Integrated "barrier + culvert" designs that are normally open and seal during events are a preferred E36-friendly approach.

C. What this means for architects — design obligations

1. Hazard assessment must inform design from day one

Because PC-120 requires site-specific hazard assessments before or alongside the consent process, architects must engage with flood and coastal risk at concept stage — not at building-consent stage. Flood depths, overland-flow paths, and inundation extents need to be baked into floor-level decisions, building footprint, orientation, access routes, and utility placement.

This means architects need fluency in reading hazard maps and working alongside planners and engineers from the start of a project, not as a late-stage compliance exercise.

2. Floor levels, building form and access are now consent-critical

Under E36, habitable rooms in the 1% AEP floodplain must sit above flood levels; buildings in coastal storm-inundation zones must exceed 1% AEP + 1 m SLR. These are architectural decisions. Finished floor levels, split-level layouts, floodable/non-habitable ground floors, refuge areas, and evacuation routes all directly determine whether a consent will be granted. Architects who get this right at concept stage save their clients costly redesign cycles.

3. Openings, entries and vehicle access need flood mitigation designed in

Doorways, louvres, ramp entries, basement access, and service penetrations are now hazard interfaces. PC-120 and E36 create pressure on architects to specify:

- Door and window thresholds that work with deployable barriers — tolerances, reveal depth, substrate and activation space matter.
- Basement and car-park ramp geometry that accommodates bunding or automated barrier systems.
- Ground-floor layouts that can function with temporary or permanent flood protection installed at entries.

Architects who understand what flood barrier systems physically require will design for them from the outset — rather than having barriers awkwardly retrofitted during consenting.

4. Ground floors as 'floodable' architecture — a new design language
One of the most significant shifts PC-120 drives is normalising the concept of a ground floor designed to flood and recover. This includes:

- Flood-tolerant materials at ground level: concrete, tile, compressed fibre cement — not timber or plasterboard.
- Mechanical, electrical and communications services elevated above flood levels.
- Ground-floor uses that are either non-habitable (parking, storage, cycle facilities) or specifically designed as flood-resilient retail/commercial spaces.
- Drainage and pump-out provisions integrated into the slab or services core.

This is an emerging vocabulary in New Zealand, but is well established in the Netherlands/Europe parts of the UK, and coastal US cities. Architects who develop this fluency now will lead the market.

5. Resilience infrastructure needs to be architecturally integrated
PC-120's push for emergency-resilience provisions — safe refuge levels, backup power, secure water supply — creates architectural tasks that are too often delegated to mechanical or electrical consultants. The result is resilience kit crammed into a cupboard or installed as an afterthought.
Architects have an opportunity (and arguably an obligation under good design practice) to integrate:

- Tank systems (rainwater, potable reserve) that are architecturally considered — not just functional boxes in a plant room.
- Backup power in locations that are accessible, protected and visually resolved.
- Water purification systems that form part of a coherent servicing strategy.

This is especially relevant for multi-unit residential, mixed-use developments, and retirement/health facilities where continued habitation during a flood event is a genuine design-brief requirement.

6. Architects as the hazard translation layer
Under PC-120, the consent path for a hazard-affected site involves a planner (hazard assessment and policy navigation), an engineer (hydrology, structural response), and the architect (design resolution). In practice, the architect is often the person who translates what the risk framework demands into what the building looks like and how it works.
Architects who can confidently brief clients — 'this means we design the ground floor as non-habitable; here is what that looks like and here is the barrier and drainage package that makes it work' — will build trust and reduce risk for their developer clients.

D. Scenarios where flood barriers and mitigation packages are expected

The following recurring situations are where Auckland Council planners and engineers are actively requesting or strongly encouraging flood barriers and related hardware as part of resource consents:

Scenario overview	
Brownfield intensification in 1% AEP floodplain	Raised habitable floors, flood-tolerant ground floors, deployable barriers at building entries and car-park ramps, attenuation tanks and permeable surfaces.
Basement/semi-basement car parks in overland-flow paths	Set-back or reshaped ramps, sump capacity and pumps, automated or manual barrier systems preventing stormwater surging into basements.
Coastal sites where retreat or full raising isn't realistic	Raised thresholds and local bunding, perimeter flood barriers at risk openings, pumped drainage to tanks with non-return valves.

Critical plant rooms and infrastructure in hazard areas	Elevated equipment, localised bunds and barriers, redundant power and water systems.
Redevelopment of existing vulnerable buildings	Improved finished-floor levels, on-site stormwater detention, door barriers and window shields, contribution to catchment-wide remedies.

In all of these scenarios, barriers are rarely accepted alone — they are one component in a broader stormwater and resilience package. This is where a systems provider approach becomes far more valuable than a single-product pitch.

E. How WaterSmart can support your practice

WaterSmart is positioned as a PC-120 systems partner — not just a product supplier. For architects, that means practical support at the stages where it matters most:

i. **CAD details and BIM-ready content**
Flood barrier systems, tank configurations, pump layouts and overland-flow management details — ready to drop into your AEE and engineering packs. Most architects will specify what they can detail.

ii. **Product information framed for architects**
Threshold tolerances, substrate requirements, reveal depths, activation space, and architectural interface guidance — not just flow rates and barrier heights. The right information in the right format for design-stage decisions.

iii. **CPD / lunch-and-learn sessions**
Short sessions on designing for PC-120 flood resilience — covering E36 obligations, design language for floodable ground floors, and integration of barriers and drainage. Claimable CPD for NZIA members.

iv. **Partnering on consent strategies**
WaterSmart works alongside flood-risk consultants (CLC, Thomas and others) who are already writing PC-120 hazard assessments. Together: products and systems + modelling and planning = a joined-up consent strategy for developers.

E36 LANGUAGE	*When specifying or writing design statements, mirroring E36 wording will resonate with planners: "does not increase and, where practicable, reduces natural-hazard risk" | "maintains floodplain and overland-flow conveyance" | "supports nature-based and non-structural mitigation before hard protection."*

This document was prepared for the NZIA "Water is the New Brief" WaterSmart Innovation Hub networking and educational session, April 2026. It has been updated to reflect the current PC-120 process status and the April 2026 Wellington and wider North Island flood events. Produced with assistance from AI research tools.