

Game Design Document: Project Reclamation

Version: 1.0.0

Role: WebMMO Architect

Genre: Massively Multiplayer Cooperative Fluid Simulation

Core Loop: Restore → Sustain → Recycle

1. Executive Vision

"Project Reclamation" is a browser-based MMO where players cooperate to heal a persistent, ruined world. Unlike traditional 4X games where the goal is *Exploitation* (mine, burn, conquer), our goal is *Restoration*. The primary antagonist is not another player, but a dynamic, spreading "Toxicity" (Fluid Simulation).

2. Core Gameplay Loop

Phase 1: Restore (The Frontline)

- **Objective:** Push back the Toxicity fluid to reclaim land.
- **Action:** Build **Scrubbers** (Toxin vacuums) and **Barriers**.
- **Resource Cost:** High **Energy** consumption.
- **Visual:** The "Sludge" layer recedes, revealing barren dirt.

Phase 2: Sustain (The Ecosystem)

- **Objective:** Convert barren dirt into living biomes.
- **Action:** Build **Irrigators** and **Apiaries**.
- **Mechanic:** These buildings require "Clean Tiles" and time. They generate **Biomass**.
- **Visual:** Dirt turns to Grass/Forest. Flora procedurally grows.

Phase 3: Recycle (The Departure)

- **Objective:** Leave no trace.
- **Action:** Deconstruct your own buildings using **Recycling Drones**.
- **Reward:** This is the *only* way to score **Harmony Points** (Victory Condition).
- **Tension:** Removing a Scrubber might let the Toxicity flow back in if the ecosystem isn't self-sustaining yet.

3. The "Reverse Economy"

We replace the standard "Gold/Wood/Stone" triad with an ecosystem-based model.

Resource	Source	Function
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Energy	Wind, Solar, Geothermal	Upkeep. If Energy < 0, Scrubbers stop. Limits expansion speed.
Biomass	Generated by Flora (Phase 2)	Construction Material. Used to build advanced tech.
Harmony	Recycling Buildings (Phase 3)	Score/Meta. Unlocks global tech & cosmetics.

4. Cooperative Conflict ("Competitive Philanthropy")

Since players share a map, how do we handle territory without war?

4.1 The Cleaning Bid

To build in a shared sector, players bid Energy.

- **Winner:** Gets the building rights and the potential Harmony score.
- **Loser:** Their Energy is refunded + a small "Consultancy Fee" (Biomass).
- **Result:** The land gets cleaned regardless, but players compete for the *privilege* of doing the good deed.

4.2 The Shared Grid

- **Mechanic:** Players can connect power lines to neighbors.
- **Benefit:** If Player A uses Player B's power, Player B gains a percentage of all Harmony generated by Player A.
- **Strategy:** Being the "Power Plant" for the server is a valid playstyle.

5. The "Toxicity" (Antagonist)

The Toxicity is a semi-intelligent fluid.

- **Behavior:** Flows downhill, fills depressions, and builds pressure against walls.
- **Sources:** "Emitters" (Old world ruins) constantly spawn new fluid.
- **Win State:** Emitters can be "Capped" only when surrounded by 100% pure Forest biomes.