The Survivors- GDD

Table of Content

The Survivors- GDD	1
Table of Content	1
1.0 High Concept	2
1.1 Executive Summary	2
1.2 Key Features	2
1.3 Genre	2
1.4 Platform	3
1.5 Story	3
1.6 Camera	4
1.7 Gameplay Overview	5
1.9 Player Controlled Character Abilities	6
Attributes:	8
Cosmetics	8
Class Attribute Matrix Chart	9
2.0 Weapons Matrix Chart	9
2.1 Controller Button Mapping	10
2.2 Combat System Overview	11
Enemy Attributes Overview	13
2.3 HUD Overview	14
HUD Mockup	15
2.4-2.5 Core Gameplay Loop Flow Chart	16
Primary Core Loop	16
Secondary Core Loop	17
Tertiary Core Loop	17
2.6 Tuning and Balancing Matrix FULL MATRIX	18
2.7 Progression System	19
2.7.1 Progression System Diagram - Full Matrix	19
2.7.2 Progression System GUI Mockup Wireframe	20
2.8 Internal Economy	21
2.8.1 Internal Economy - LINK	23
2.9 Inventory System	24
2.9.1 Inventory System HUD Mockup	25

1.0 High Concept

From an overhead perspective rain down bullets, explosives, and zombie parts as your group ventures into unsettled areas. Kill hordes of zombies and complete missions from civilians to earn new gear and weapons that both increase your survival and the damage against zombies. Push farther into the unknown to discover new threats and the rewards that have yet to be pillaged.

1.1 Executive Summary

The Survivors is a hack and slash, Diablo style game, where players—solo, or Co-Op—fight off mutant zombies similar to those in Left for Dead 2. With a variety of classes, abilities, and weapons, players work together to take on the threat of the apocalypse using their own unique approach.

1.2 Key Features

- Variety of Weapons to equip and choose from.
- Unique classes and skill choices to diversify gameplay.
- Ramping difficulty and rewards.
- Abilities to upgrade and improve as you level.
- New threats as you progress.
- Co-Op Experience

1.3 Genre

ARPG, Top-Down, Hack and Slash, Post-Apocalypse Zombie Theme



1.4 Platform

PS4

1.5 Story

Prior to the events of the game, an outbreak of a mutant fungal infection, spread rapidly across the world. Within the first year, an estimated 60% of the world's population was dead or infected, causing them to appear in a zombified state. This strain rapidly mutates in a variety of ways leading to new abominations to develop everyday. However, just before the loss of power, a mass message was sent to the living telling those left alive to venture to a refuge just outside of what was once Baltimore.

Several years after the apocalypse, the survivors hideout in a civilization known as the Refuge. A designated group is formed to undergo a series of expeditions, aimed at gathering supplies and expanding secured areas. The group, known as The Chosen, consists of four individuals, each having an unique set of skills and mastery to gain a tactical advantage against the largest of threats.

The player plays as one of the 4 classes (members of The Chosen). He/She can choose to undergo an expedition solo or Co-Op. Each expedition is a unique map and contains a large pool of zombies scattered around. When the map is clear, the expedition is complete, and the player(s) can return to The Refuge. Loot is delivered through killing zombies or hidden in interactables around the map (chest, containers, etc). Loot that is scavenged can be brought back to the Refuge to upgrade or craft new gear.

As the player performs expeditions farther from The Refuge, the monster level increases, and new threats begin to appear. Additionally, the loot quality goes up as the tier increases. NPC civilians in The Refuge offer players quest while they go on expedition. For example a researcher might ask for 50 zombie parts to study the DNA. This might reward the player with "Bottle Caps", the currency used in this post-apocalyptic setting.

1.6 Camera

The game is played using an isometric angled camera that is locked onto the player. Although the game is 3D, the camera does not rotate, however it does have the ability to be zoomed in and out closing in on the player as it zooms in more. The camera locks on to the player and follows their movement in game.



The reasoning behind this camera choice is that it focuses and centers on the player's character. In what could be a chaotic game with a lot going on, it helps the player always know where their character is, and doesn't allow them to "get lost". Additionally, a zoomed isometric perspective allows you to see the environment and navigate it with relative ease.

1.7 Gameplay Overview

The Survivors (pending name), is an ARPG Dungeon Crawler Hack and Slash in the top-down perspective similar to a *Diablo* style game. The game takes place 5 years into a zombie apocalypse which killed roughly 95% of the world's population. The players choose to play as one of four characters who create the group referred to as The Survivors.

The player can play solo or Co-Op in missions known as expeditions where they will explore new territory while fighting off hordes of mutated zombies. The player has a variety of weapon choices regardless of class, and can customize the weapon by equipping support attachments to it. For example, Barbed Wire can be equipped to your baseball bat to inflict bleeding damage on a hit.

As the player progresses and levels, they will unlock new weapon and gear options, as well as upgrades to their character abilities creating new and unique ways for players to customize their characters. After completing an expedition, the player can return to their base, known as the Refuge, and buy/sell equipment to prepare for the next mission. If the player dies on an expedition, they will awaken in the Refuge and are forced to restart the mission entirely. Additionally, upon death, the player loses a portion of their experience to the next level, this portion increases as the player's level goes up. Overall, the game should provide the fun mindless entertainment that the hack and slash genre provides, yet also provide new and unique challenges that keeps players on their toes and punishes their mistakes.



1.9 Player Controlled Character Abilities

Classes:

There are four main classes in *The Survivors*, each brings a different play style and feeling to the game. Additionally, at level 10, players can choose from one of two subclasses and put points in that subclass at every 10 levels respectively.

1. The Brawler

Focused on Melee Combat, the Brawler isn't afraid of taking the fight up close and personal. Whether using a bat, club, or axe, the Brawler never fails to pack a punch.

a. Slayer

The Slayer is a subclass of the Brawler class. Focusing more on assassinating big threats and taking them down swiftly. The Slayer gains additional damage while using swords or daggers, and an increased bleed damage multiplier.

b. Berserker

The Berserker is the second subclass of the Brawler class. The berserker focuses more on killing large hordes of zombies dealing massive splash damage. Additionally, the berserker gains rage when chaining zombie kills, dealing more damage and granting more attack speed the larger the chain.

2. The Ranger

The Ranger focuses on maximizing damage from a far. Choosing to use Machine Guns to mow down waves of zombies, or opt for a stealthier approach and choose a Bow/Crossbow.

a. Scout

The Scout is a fast paced version of the Ranger. Using dual pistols or smgs, the scout can navigate through maps quickly. Additionally, the scout gains 3 charges of the dash ability, and a higher energy regen and cap.

b. Trooper

The Trooper gains the ability to equip heavy weapons. Allowing for a massive barrage of cover fire, the trooper subclass is the perfect addition to any party.

3. The Medic

The Medic is a healer or support class that no party is complete without. The Medic gains access to crafting first aid supplies and other consumables.

a. Combat Medic

The Combat Medic is for the supports that want to deal some extra damage. Unlocking access to rifles and bows, the combat medic can dish out damage while continuing to patch up any damage that the party might have taken.

b. Doctor

The Doctor is the ultimate healing class. Granting a variety of buffs to allies within proximity, the Doctor can help maximize the potential of other survivors.

4. The Specialist

The Specialist is a wild card class. Gaining access to explosives, the Specialist can choose to bring hell to packs of zombies, or use his expertise to set up traps to eliminate specific threats.

a. Pyromaniac

The Pyromaniac brings a flare of heat to the specialist class. Unlocking both the Molotov Cocktail and a homemade flamethrower, the Pyromaniac leaves those pesky zombies in a pile of ash.

b. Engineer

The Engineer is the second subclass of the specialist, granting access to new unique crafts to aid the party in combat. Most notably, the engineer can create sentry turrets and proximity mines, allowing the player to relax while their inventions do all the work for them.



Attributes:

- Constitution: Attribute determining hit points and regeneration. Additionally,
 Constitution grants a bonus health when bandaging.
- Stamina: Stamina determines max energy pool and energy regen. Additionally, Stamina grants bonus energy when using energy consumables.
 - (Energy is similar to mana in standard rpgs, player needs energy to perform actions).
- Haste: Haste determines the attack and action speed of all classes. Additionally, haste increases dodge/evasion rate of incoming attacks.
- Protection: The Protection Attribute is solely focused on negating and protecting from physical damage and attacks.
- Resistance: Resistance focuses on the negation of elemental or radioactive damage.
- -- Important Notes: Attack damage is determined on a weapon basis and not a base attribute, however overall damage can be increased by Haste.
- -- All Attributes are the same for subclasses, however, upgrading gear can add to attributes.

Cosmetics

Due to the game being from an isometric point of view, cosmetics are created to reflect that. Most cosmetics are obtained through microtransactions and offer no unique gameplay change.

- Reskins: Players can reskin equipped gear to have a new unique model.
 Examples of this are: having your helmet be a football helmet, having a samurai sword, or coloring your guns with camouflage.
- Trails/Footprints: These Cosmetics are displayed through the player's movement.
 For example, the player might have sparks of fire follow them as they move, or a trail of bloody footprints.
- Effects: This is a more general cosmetic and covers a variety of game effects.
 Some ideas are colored flames for pyromaniacs, zombies that explode in blood on kill, guns shoot a colored trail of bullets.

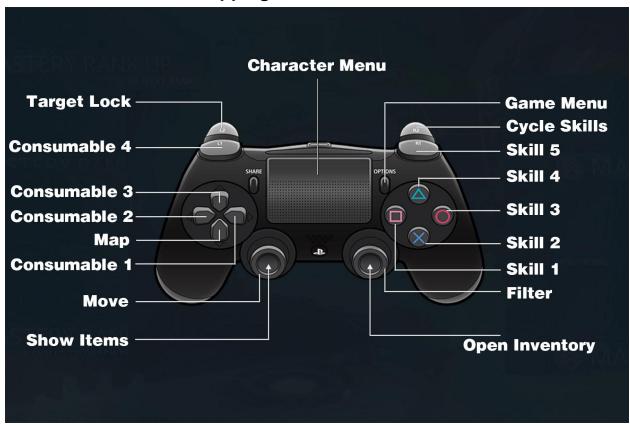
Class Attribute Matrix Chart

Class	Constitution	Stamina	Haste	Protection	Resistance	Total	Range 1-20
Brawler	12	8	7	12	10	49	
Ranger	8	12	14	8	8	50	
Medic	10	14	6	10	11	51	
Specialist	9	15	10	9	13	56	

2.0 Weapons Matrix Chart

Base		Attacks Per	Crit		Damage	Status	One/Two
Weapon	Damage	Second	Chance	DPS	Туре	Effect	Handed
Spiked Bat	13-16	1.45	5%	21	Melee	Bleeding	One Handed
Club	14-29	1.3	5%	27.9	Melee	None	Two Handed
Hatchet	11-21	1.5	5%	24	Melee	None	One Handed
Sword	15-25	1.45	5%	29	Melee	Bleeding	Two Handed
Dagger	7-27	1.5	6.10%	25.5	Melee	Bleeding	One Handed
Fire Axe	16-33	1.3	5%	31.9	Melee	None	Two Handed
Sabre	5-22	1.55	5%	20.9	Melee	Bleeding	One Handed
LongBow	6-25	1.3	6%	20.2	Ranged	None	Two Handed
Marksman Rifle	21-35	1.3	6%	36.4	Ranged	None	Two Handed
Machine Gun	7-23	1.55	6.30%	23.2	Ranged	None	Two Handed
Pistol	8-14	1.5	7%	16.5	Ranged	None	One Handed
Grenade	20-31	1	0%	25.5	Ranged	AOE	One Handed
Mine	29-43	1	0%	36	Trap	AOE	N/A

2.1 Controller Button Mapping



Shared Actions

- Move
- Use Consumables
- Dash
- Attack



2.2 Combat System Overview

The Roaches (Smashers)

- Low Health Pool
- Medium Damage
- In Large Packs
- Low XP Gain
- Shown in typical clothing.
- Depicts previously alive humans.
- Not very intelligent



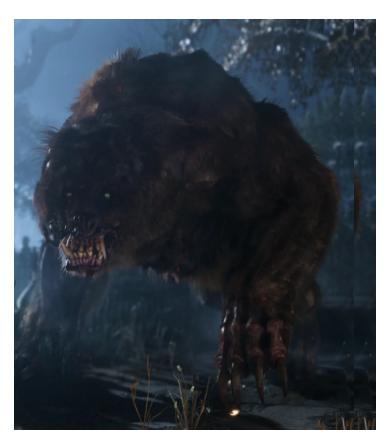
Scratchers (Emphasizer)

- Very Fast/Agile
- Solid DPS
- Medium Life
- Best dealt with from afar, but can be killed in melee.
- Depicted with Long Claws.
- Are humanoid, but have insect-like characteristics.
- Lunges at players with rapid attacks.



Devourer (Enforcer)

- High Life Pool
- Almost Unbreakable Defences
- Slow Movement Speed.
- Slow but heavy hitting attacks.
- Special Attack: Charge.
 - Charges at the player dealing massive damage on impact.
 - If collides with a wall/obstacle stuns itself and weakens defences.
- Forces players to dodge charge attack or suffer massive damage.
- Executing mechanics correctly rewards players with a higher chance to takedown.
- Typically depicted as a beast-like creature such as a bear.



The Echo (Challengers)

- Medium Life Pool
- Special Mechanic: Resurrect
 - Summons fallen corpses around it.
- Requires target focus or will resummon killed zombies.
- High Priority Threat
- Very intelligent.



Enemy Attributes Overview

Since these enemies might be scaled at different levels, the matrix will show a scale in which to balance the enemies at any given level/tier.

Damage

Defines the overall range of damage from it's attacks.

Attack Speed

 Demonstrates the attack speed of zombies. Shown as a single number representing the number of attacks per second.

Health Pool

Number representing the effective health pool of the enemy. Sh

Resistance

 Similar to health, but more defence based. Resistance is damage absorbed or blocked entirely.

• Experience Gain

 Numeric value showing expected experience gained from killing said creature/enemy.

Movement Speed

 Numeric value representing the speed in which enemies move around or towards the players.

Enemy Attribute Matrix (Range 1-20)

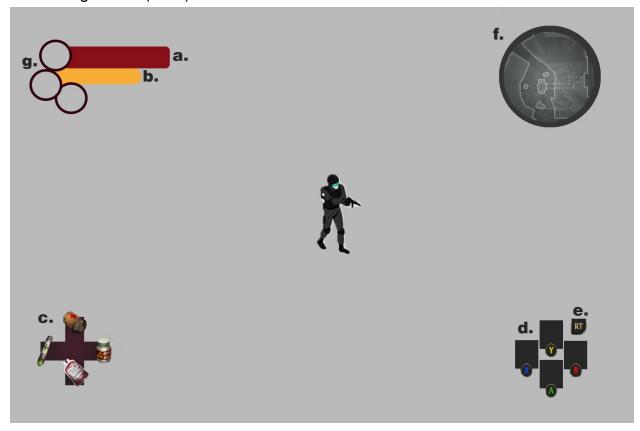
Enemy Type	Damage	Attack Speed	Health Pool	Resistance	Exp Gain	Movement Speed	Total	Comments
Roaches	7	8	5	5	3	12	40	
Scratchers	8	16	12	4	9	14	63	
Devourers	15	4	15	17 (8)	12	8 (1)	71 (55)	(#) = Weakened
Echoes	11	6	9	9	18	10	63	Summons Enemies

2.3 HUD Overview

UI Wireframe Mockup

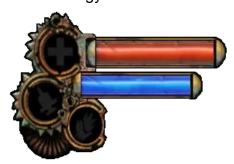
A. List

- a. Player Health (HUD)
- b. Energy (HUD)
- c. Consumables (HUD)
- d. Abilities (HUD)
- e. Controls (HUD)
- f. Minimap (HUD)
- g. Buffs (HUD)

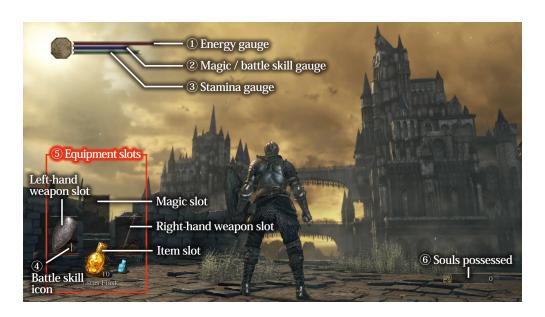


HUD Mockup

Health/Energy Bar:



Concisely shows health and mana in a simple easy to view piece. I've turned the right of it into a buff bar to show the duration of consumables and how far they are to being consumed.

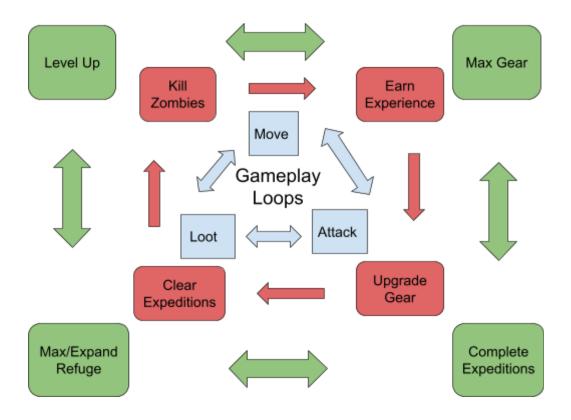


Consumables are in the bottom left. For PS4 this is easy to understand and reinforces the bias as the inputs for these are on the left side of the controller.



The World of Warcraft map is great. It clearly shows the direction one is traveling in as well as a legible level of detail for elevation change, roads, environmental obstacles.

2.4-2.5 Core Gameplay Loop Flow Chart



Primary Loop
Secondary Loop
Tertiary Loop

Primary Core Loop

- Move
- Attack
- Loot

On an expedition, players will move through the layout attacking zombies and looting anything that drops. This is the main loop that players will go through in the moment to moment gameplay.

Secondary Core Loop

- Kill Zombies
- Earn Experience
- Upgrade Gear
- Clear Expeditions

In an expedition, players kill hordes of zombies and gain experience. This leads to an upgrade in new gear and the clear of the expedition. All these goals are achieved by looping through the primary core. Additionally, this should add an added level of fun to the game so players don't get bored of the primary loop.

Tertiary Core Loop

- Level Up
- Max Gear
- Complete Expeditions
- Fully/Expand Upgrade Refuge

This loop focuses on objectives that are the highest level. This ranges from long term goals to goals that exponentially get harder. This is, in my opinion, equally as important to the game's success as the other loops are. This loop's primary goal is to keep players motivated and give them goals to work towards over time.

2.6 Tuning and Balancing Matrix -- FULL MATRIX

Tier	Weapon	Min Damage	Max Damage	Attacks Per Second	Crit Chanc e	Damage Per Second		Status Effect	One/Two Handed	Rarity (1-7)	Cost
	Blunt Weapons (Club)	14	29	1.3	5.00%	28.0	Melee	Stuns	Two Handed	1	\$86.65
	Axes (Cleaver)	12	35	1.3	5.00%	30.6	Melee	Bleed	One Handed	1	\$94.71
	Dagger (Shank)	7	27	1.5	6.10%	25.5	Melee	Bleed	One Handed	1	\$79.05
	Sword (Foil)	11	25	1.55	5.50%	27.9	Melee	Bleed	One Handed	2	\$86.49
	Bow (Short Bow)	12	26	1.5	6.00%	28.5	Ranged	None	Two Handed	2	\$88.35
	Crossbow (Repeater)	18	27	1.2	6.00%	27.0	Ranged	Stuns	Two Handed	1	\$83.70
1	Pistol (P1911)	15	44	1.5	5.00%	44.3	Ranged	None	One Handed	3	\$137.1 8
	SMG (Micro UZI)	23	40	1.6	6.00%	50.4	Ranged	None	One Handed	3	\$156.2 4
	Machine Gun (M16)	15	51	1.5	6.30%	49.5	Ranged	None	Two Handed	4	\$153.4 5
	Marksman Rifle										
	(Winchester)	24	49	1.3	6.20%	47.5	Ranged	None	Two Handed	3	\$147.1 0
	Shotguns (Sawed Off)	12	52	1.4	7.00%	44.8	Ranged	None	Two Handed	3	\$138.8 8
	LMG (DP LMG)	27	47	1.6	4.00%	59.2	Ranged	None	Two Handed	4	\$183.5 2
	Specialty	29	43	1	0.00%	36.0	Trap	AOE	N/A	3	\$111.6

(Land Mine)					0
(======================================					

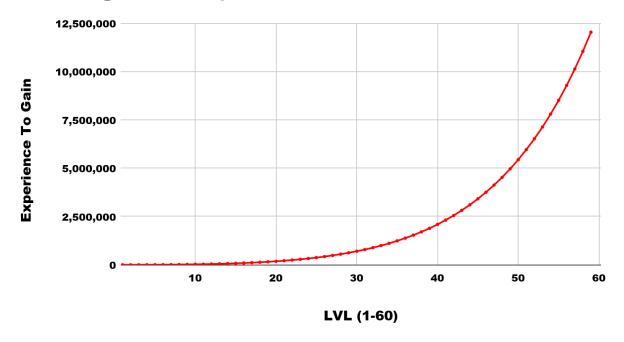
2.7 Progression System

Throughout the course of the game, the player can earn experience for killing hordes of zombies, finding hidden relics, and completing quests. Each level grants the player a single skill point that can be used to upgrade certain stats, grant bonus damage, or increase buff effect.

At level 10 the player unlocks a quest to choose a subclass. The subclass dives deeper on the player's class and has a skill tree of its own. Points for the subclass tree are unlocked every 10 levels till 60 (max level), and grant one, two, or three points depending on the level.

2.7.1 Progression System Diagram - Full Matrix

Level Progression Graph



2.7.2 Progression System GUI Mockup Wireframe

This mockup shows the UI template for the subclass skill tree. Each node requires a single point to activate and grants a special bonus when picked. One thing to note is that there are a total of 12 nodes, but only 10 possible points, so two nodes will not be picked. This tree is for the berserker class, and as a result has more melee focused nodes. Player always starts in the middle designated by orange (A.)

Examples:

- K. Grants 20% bonus to maximum life and 8% health regen.
- C. 15% increased damage with Axes.
- D. 10% of damage taken is reflected as physical damage to the attacker.
- I. 40% increased damage, 15% increased damage taken.



2.8 Internal Economy

In the game, Tangible resources can be acquired in a variety of ways. However, the best way to acquire resources is through excursions. Excursions are instances where the player(s), fight hordes of zombies and mutants in a variety of settings. Additionally, excursions give higher quality and quantity of loot as they progress further away from the Refuge. Loot is dropped from killed enemies and can be picked up by the player. The player can also scavenge for loot in interactable objects like chest, barrels, cars, etc. Additionally within an incursion a rare mutant "boss" can spawn that gives increased rewards when killed.

Although this is one major way of obtaining resources, it is not the only way. Players can take their loot from an incursion and trade it to a vendor for currency which can be used to purchase items from vendors. Additionally some scavenged items are ingredients for recipes to craft stronger weapons, flasks, armor.

Subcategories:

Currency

Currency in game is used to buy items from vendors in The Refuge. Bottle Caps are the main form of currency and are acquired on incursions or through selling items/other currencies to vendors. Other currencies in the game like relics, Mutant Horns, etc are found exclusively in excursions and are traded to specific NPCs. Items like seeds are found on excursions, and are for optional progression of The Refuge.

- Bottlecaps
- Relics
- Mutant Horns
- Batteries
- o Fuel
- Jewels
- Metal (Bullets)
- Seed
- Crafting Resources

Crafting in game is fairly simple, certain combinations of resources create weapons or items. Things like armor and weapon scrap can improve the quality of an existing item. Most of the specialist items such as landmines are only craftable. These are obtained from scavenging in excursions.

- Metal Fragment
- Armor Scrap
- Weapon Scrap
- Refined Metal
- Planks
- Silicon
- Duct Tape
- Gunpowder
- Flasks (Consumables)

Flask are the "potions" in game. They are a variety of medicine that can be used to buff and heal the player while in excursions. Some of these are purchased from vendors while others can be crafted or found in the world.

- Bandage
- Adrenaline Syringe
- First Aid Kit
- Painkillers
- Radiation Pills
- Energy Drink
- Transfusable Blood
- o Alcohol
- Armor

Armor is obtained through specific crafting recipes or in excursions when scavenging or killing enemies. The ones listed below are broad categories that have multiple tiers in each. For example Body armor might have three tiers: Light, Medium, and Heavy, each having their own drop chance and pros/cons.

- Masks
- Helmet
- o Body Armor
- Boots
- Gloves
- Backpack
- o Belt
- Hazmat Suit

2.8.1 Internal Economy - LINK

Currency:			11y - <u>E11</u>	_			
Name	Туре	Rarity	Value	Consum able (Y/N)	Rate of Flow	Source	Description
Bottle caps	Currency	Commo n	1	N	NA	Enemies, Selling to Vendors, Scavenging, Quest Rewards.	Bottle caps are a main form of currency used for trading with vendors, and purchasing other goods within the Refuge. They are often given as rewards from NPCs when a quest is completed.
Relics	Currency	Rare	1000- 7600	N	NA	Scavenging new and distant sectors.	Relics are rare items that connect to the game's story. They can be given to NPCs to study and often reward the player with a high amount of bottle caps.
Mutant Horns	Currency	Uncom mon	120	N	NA	Killing Mutant Zombies	Uncommon Drops from killing a boss in an incursion. Can be traded to NPCs in exchange for bottle caps.
Batteries	Currency/ Crafting	Uncom mon	60	Y	NA	Scavenging	Helps power different items for the player or the Refuge.
Fuel	Currency/ Crafting	Uncom mon	90	Υ	NA	Scavenging	Helps power different items for the player or the Refuge.
Jewels	Currency	Rare	300-8 00	N	NA	Scavenging / Killing Hordes	Jewels are sold to NPCs for a profit and can be found in incursions.
Metal	Currency/ Crafting	Uncom mon	40-80	Υ	NA	Scavenging	Used for crafting or traded to NPCs for profit.

2.9 Inventory System

Overview

The inventory is a 6x10 grid where items of a multitude of sizes can be stored and carried. A player can carry a maximum of 60 items, however, larger items, like guns, bows, etc, require more slots. If a player's inventory is full, the player must return to the refuge where loot can be stored within the player's vault. Items can be picked up and dropped outside of the inventory and will drop to the ground, requiring them to be picked up again. Dropping an item within The Refuge will prompt a confirmation to destroy the item, removing it permanently. The inventory is merged with the player equipment, allowing for an ease of access for item swapping. The inventory overlaps about a third of the screen, allowing the player to see their character while looking into the inventory menu.

Inventory HUD

The main element of the HUD is the grid format, it allows for a simple and organized storage and strays away from a weight/capacity format where encumberment is a problem. Additionally the loadout UI is mixed with the inventory to easily equip upgrades or new items without having to keep swapping between menus.

Grid Inventory:

The 6x10 inventory offers enough space for an average looter allowing you to pick up items as you play, but eventually forcing you to stop picking up everything. Items weapons and armor are larger, and are usually 2x3 or 2x2 size. This limit mainly protects against the player swapping their entire loadout for a given situation. Despite this, the total of 60 slots is enough for the player to choose how empty or full they want their inventory managed.

Equipment Slots:

The equipment slots are shown above the inventory. They display an open spot for each possible equipment. The player can drag or drop an item into the given slot to equip it or replace the current item.

Compare Items:

Item stats can be compared if the player hovers an item and presses the SHIFT key. This will compare the hovered item's stats with the corresponding equipped item's stats. This benefits the player by showing which item is better.

Splitting Stacks:

Some items can be stacked; this might be insignificant item drops or be valuable resources. A player can CTRL click an item to split the stack a given amount. For example, if the player has 10 batteries and wants to drop one. CTRL click the stack of 10, enter 1, and the stack of 10 will now be split into a 9 and 1.

2.9.1 Inventory System HUD Mockup

