

Wisdom from the Wastelands

Issue #47:
Underwater
Rules



By Chris "Outlander" Van Deelen and the Skirmisher Game Development Group

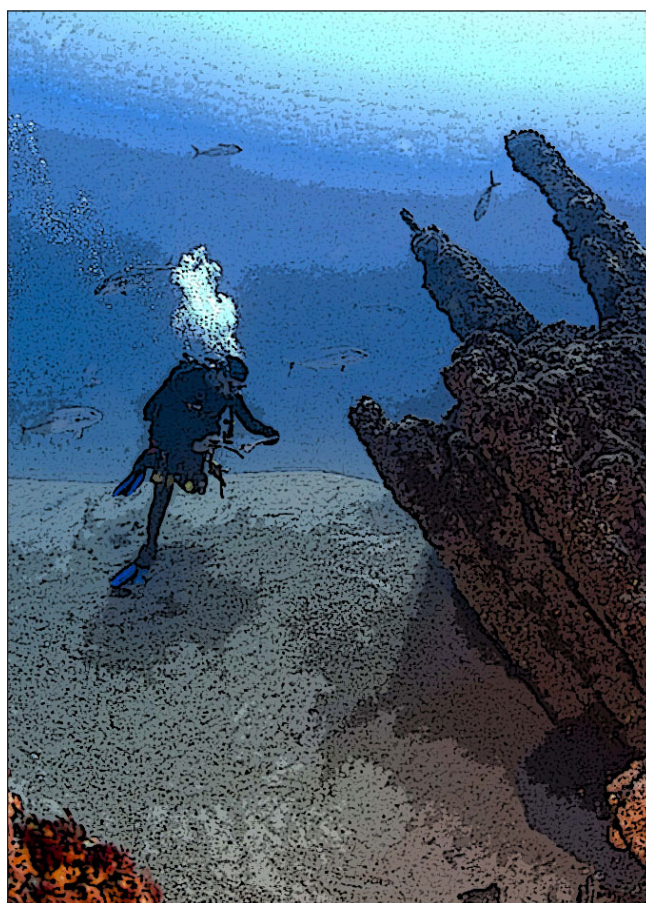
Water covers over 70% of Earth's surface, so many adventures will likely take the occasional aquatic turn. This could happen in the wilds, on the open ocean, or down in the inky depths. Mid-exploration, an evil Mutant Lord might even open the water valves in an underground tunnel or inundate some ruins below a destroyed dam. A naive player could believe the worst thing about a water encounter is getting wet, or maybe that something large, toothy, and cold-blooded might try to take a friendly little nibble. But any watery environment is an extremely hostile place: the hazards are many and varied, and death can lurk within the most placid of pools. To enhance adventures on the water or below the surface, this issue introduces a plethora of new rules, ranging from water-damaged equipment, to deep-diving pressure, to the ever-present danger of drowning. Just be warned, your players may never go swimming again.

Cold-Based Weapons and Mutations

Underwater, these don't work as they do on the surface. Instead of the usual single beam, cold weapons freeze a column of water into icy shards. Anything within this 5' diameter super-cooled area, stretching from the weapon to the target, suffers 1d6 points of cold damage per round of exposure. However, the water warms quickly and the effect only lasts for 1d4 rounds. If the weapon or power is used in a moving current, the freezing effect dissipates after only one round.

Condition Level Damage

Adventurers in the *Mutant Future* world carry a wide variety of toys and equipment; much can shrug off a swim, but a great many things — especially those delicate electronic treasures — are not protected against water damage. The ML has final say on an item's response to water, but the



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This publication is dedicated to providing useful information, game content, and ideas to players of modern, science fiction, and post-apocalyptic table-top and role-playing games in general and to fans of Goblinoid Games' *Mutant Future* RPG in particular. The material contained herein are compatible with it and any others that use the "Basic" system introduced in the most popular role-playing games of the early 1970s and are easily adaptable to many other games (especially successor systems, to include those covered by the Open Game License).

broad list given in the **Condition Level Damage Table** provides some guidelines regarding how long an item can survive being wet before it starts making unhappy noises.

For example, some items are affected as soon as the carrying character enters the water, while water-resistant gear can withstand a quick dunk, but not extended submersion. Items must save versus energy after their listed time period elapses; those that fail take the condition level damage indicated. For more information regarding equipment saves and condition level damage, consult *Wisdom from the Wastelands* issue #1. Certain items can get wet, but if properly dried and cleaned do not suffer any damage, even if they failed their saving throw. But, this is left up to the ML. Also, these rules do not reflect the real world difference between exposure to salt water and fresh water. If the ML wishes to add another layer of realism, please feel free.

One area that requires some ML discretion is ammunition; the applicable cells in the table are marked with an asterisk (*). Depending on type, ammo is either impervious to water damage, or immediately made useless. Modern military grade munitions (e.g., full metal jacket or sealed power sources) are designed for all-weather operation — except for some with casings engineered to disintegrate (e.g., shells for the M-1's main gun are made of a combustible material that does not like water). In these unusual cases, and with all ammo for antique weapons (things like the poured powder for flintlocks/matchlocks, paper cartridges for muskets, and powder bags for cannon), wet is a *bad* thing. If the ML wishes, the waterproofing seals on military equipment could degrade with time and/or exposure to the hostile environment of the *Mutant Future* age, making all ammo equally susceptible to moisture.

Deafened

While deafened, characters cannot react to auditory stimuli: they suffer a -2 penalty to their initiative rolls, cannot make any sort of audial perception check, and cannot respond to spoken commands. A deafened character must rely on mental communication, such as *neural telepathy*, or visual methods, like writing or hand gestures (assuming the victim can read or understand the movements).

Depth

Because of the intense water pressure, swimming at great depths without protective equipment can be deadly. Even with technology available before the final wars, it was a very rare Ancient craft that could reach the greatest depths without imploding.

Terrestrial beings can dive only so far before the pressure overwhelms them. A variety of factors figure into calculating a maximum dive depth, but for simplicity, a land-based character may start to take damage when she reaches 200'. For each round spent at this depth or deeper, she must save versus death (or a successful swim check — the ML decides) to avoid taking 3d6 points of damage. Every 50' below this limit the possible damage increases by 3d6. Native aquatic creatures begin to make saves at 500' and have 100' damage increments.

For example, Min swims toward an Ancient lab 250' down. At 200' she begins rolling saving throws every round; failure inflicts 3d6 points of damage. While struggling to open the airlock door at 250', the potential damage jumps to 6d6 points of damage. If the lab were 300' below the surface, Min would take 9d6 points of damage per failed save.

Drowning and Suffocation

These rules cover instances where a character cannot breathe, both in and out of the water, whether he is at risk from drowning, a strangle hold, gas attack, or had his face melted by nanites. Although there are mutations and certain animal traits that increase the length of time a character can hold his breath, for most beings this limit is one half their Constitution score in rounds. For example, a character with a CON of 10 can safely hold his breath for 5 rounds. Once a character exceeds this time, he begins to suffocate. Every round he cannot breath, he must save versus death or lose 20% of his *total* hit points — not his current hit point tally. This reflects the weakening effect damage has on a person.

If he reaches zero hit points, the character enters an unconscious, near-death state; he can be revived as long as he has not been “almost dead” for a number of rounds greater than his CON score. Resuscitating this character requires properly administered first aid, which involves making a successful Intelligence check (rolling under the caregiver's

Condition Level Damage Table

Item Type	Length of Exposure	Potential Damage
Ammunition	1 round or N/A*	Rendered useless or N/A*
Cloth, leather, synthetic fibers	N/A	N/A
Electronics	Immediate	1d6-1
Explosive Weapons (e.g., grenades.)	N/A	N/A
High-Tech Firearms	1d6 rounds	1d3+1
High-Tech Melee Weapons (Powered)	1d3 rounds	1d4
Liquids (e.g., drugs, foodstuffs)	Immediate	Rendered Useless
Non-Alloy Metal Items	1 hour	1d3-1
Paper	1d3 rounds	1d4
Plastics	N/A	N/A
Power Sources	1d6 rounds*	1d2*
Primitive Firearms	1d3 turns	1d4

INT on a d20). If this succeeds, the victim is allowed another save versus death. Should he save, the character is revived with 1 hit point; if he fails, he is fully dead.

Effects of Water on High-Tech Weapons

Because water is a much more dense atmosphere than air, with a different composition, it often has dramatic effects on weapon performance. Some weapons suffer reduced range, others have reduced damage or wildly different areas of effect, and some simply do not work underwater. The **Range and Damage Reduction Table** outlines these various effects, as well as listing where the weapon descriptions can be found.

To simplify the table and reduce repetition, several cells reference other entries in this article, which describe the weapons' underwater behavior in greater detail. So, when the Nerve Ripper cell reads "Acts as **Electricity**," it is probably best not to fire it underwater, unless the gunner is somehow immune to the effect — or truly desperate. Also, to clarify, the **Range Reduction** indicates how much the weapon's range is reduced *by*, not *to*. For example, if the weapon has a range of 1000 meters on land, but has a **Range Reduction** of 75%, it can only shoot 250 meters underwater.

Electricity

When discharged underwater, electricity does not travel in a straight line from shooter to target. Instead, the power spreads out to encompass a sphere centered on the point of origin. Because this usually means the end of a firing weapon, a careless or unaware attacker can zap herself and her friends. So beware, unless the shooter is immune to her own weapon or mutation, she might be better off with an unpowered or lower-tech option.

The volume affected by an electrical attack is described by a radius 5' long for every damage die, centered on the shooter. For example, while diving in a lake, Tanith uses her *energy-retaining cell structure* to attack two kelpers. Because the mutation inflicts 3d6 damage, Tanith shocks everything within 15', in all directions. Hopefully the rest of her party is not close by. Note that, despite the more diffuse area of effect, a weapon's damage is not reduced — although its range usually is.

Explosives and Concussion Effects

Note: this entry covers only basic explosives. When using devices with special effects like electricity, heat or cold, sonics,

Range and Damage Reduction Table

Weapon	Range Reduction	Damage Reduction	Source
Atomic Modification System	Will not work underwater	N/A	<i>WfiW</i> #46
Bead	As Projectile Weapons	As Projectile Weapons	<i>WfiW</i> #9
Beam Laser	50%	50%	<i>WfiW</i> #46
Blaster	50%	N/A	Core rules
Dart Gun	N/A	N/A	<i>WfiW</i> #46
Dessicator	Will not work underwater	N/A	<i>WfiW</i> #9
Disintegrators	N/A	N/A	<i>WfiW</i> #26
Disruptors	N/A	N/A	<i>WfiW</i> #26
EMP	Acts as Electricity	N/A	Core rules and <i>WfiW</i> #9
Flamer	Will not work underwater	N/A	<i>WfiW</i> #3
Fusion	N/A	N/A	Core rules
Gauss	75%	50%	Core rules
Grenade Launchers	Will not work underwater	N/A	<i>WfiW</i> #9
Ion Blasters	Acts as Electricity	N/A	<i>WfiW</i> #26
Laser	50%	50%	Core rules
Maser	N/A	50%	Core rules
Micro Missile	Will not work underwater	N/A	<i>WfiW</i> #3
Micro Nuclear Launcher	Will not work underwater	N/A	<i>WfiW</i> #46
Microwave Emitter	Acts as Thermal	N/A	<i>WfiW</i> #26
Nerve Ripper	Acts as Electricity	N/A	<i>WfiW</i> #3
Plasma	N/A	N/A	Core rules
Plasma Projectors	N/A	N/A	<i>WfiW</i> #9
Radiation	25%	N/A	Core rules
Rail Gun	25%	25%	<i>WfiW</i> #3
Screamers	See Sonics	See Sonics	<i>WfiW</i> #9
Scrambler	50%	N/A	<i>WfiW</i> #3
Sliver Caster	75%	75%	<i>WfiW</i> #3
Sonic Disruptors	See Sonics	See Sonics	<i>WfiW</i> #26
Stun	Will not work underwater	N/A	Core rules
Warp Energy Blaster	Will not work underwater	N/A	<i>WfiW</i> #46
X-Ray Laser	N/A	25%	Core rules

etc. consult the guidelines provided elsewhere in this article.

As any grenade angler can attest, submerged explosions are different than those on the surface. First, don't forget the vertical axis: in the water, targets might be above or below the explosion. Next, water is much denser than air. Unfortunately for those devices that cause damage with shrapnel and the like (e.g., fragmentation grenades), the projectiles travel only 25% of the distance they would in air, but still do their normal damage.

Added to the possible shrapnel attack, there is a massive concussive wave dangerous out to twice the weapon's surface range. Within the normal radius of effect the device does its listed damage, while in the extended range it does half this. If the weapon has a saving throw to avoid damage, it applies normally within the usual radius of effect; out in the extended range, a successful save negates any damage.

Beyond the damage, anyone in the total radius of effect also has to deal with secondary issues. Characters must save versus death to avoid being **deafened** for 4d6 hours (see the **Deafened** entry for more information). Should someone fail by rolling a natural 1, his deafness is permanent. Everyone must also make a second save versus stun to avoid being stunned for 1d6 rounds. Anyone who fails this save and is not wearing breathing apparatus is immediately subject to the **Drowning and Suffocation** rules described earlier.

Light

Light does not penetrate water well. Even 30' down, surface light begins to dim; below 300', it all but disappears. In the depths, many creatures have never seen sunlight.

The **Visibility Table** outlines this greatly reduced visual field at various depths. **Visibility Range** can also be affected by turbidity: if the water is silty or thick with plankton, the range could be half the listed amount — or even less, depending on the ML's discretion. The **Range** mostly applies to horizontal line of sight. Looking down into deeper water, these distances could be cut in half, but this depends on current water/light conditions, and the ML's ruling. Characters with mutations or technology that let them see in the dark (e.g., night vision, thermal vision, etc.) should follow the guidelines for light as though they were on the surface.

Visibility Table

Depth	Visibility Range
0'-30'	300'
31'-60'	200'
61'-120'	100'
121'-180'	50'
181'-300'	25'
Greater than 300'	0' - total darkness

Melee Weapons

Hand-to-hand combat in water is difficult and exhausting. The liquid slows an attacker's movements so much that any swung weapon (e.g., warhammer, mace, sword, etc.) deals only half its regular damage. Piercing weapons like spears, which just require thrusting, are much more effective and do

not have this penalty. The ML must decide if weapons such as swords can be used for piercing, instead of slashing. If the weapon has a modification/upgrade from *WfiW* issue #24, the special damage is unaffected.

Mutations

The list below details how some mutations are altered underwater.

Mutation	Effect
<i>Dermal Poison Slime</i>	Slime is washed away
<i>Energy Ray</i>	Range is halved
<i>Energy-Retaining Cell Structure</i>	See Electricity above
<i>Fragrance Development</i>	Does not work
<i>Shriek</i>	Range is doubled; see Sonics below

Projectile Weapons

When fired into water, projectiles from primitive firearms (including bows and crossbows) lose all kinetic energy after only 10'. The table below outlines this rapid decrease in damage for shooting targets at or near the surface. If the ML permits firearm combat underwater, this table can also be used for close range shooting. Unless they have a special kind of string/firing mechanism, bows and crossbows don't work underwater, but spear guns do. As an example, Turok fires his sport rifle at a kelpie 5' under the surface. He hits, rolling 10 points of damage. Because of the depth, the kelpie takes only 4 points of damage.

Depth and Damage Reduction Table

Distance	Underwater Damage
Surface	100%
1-3 feet	70%
4-6 feet	40%
7-10 feet	10%
11+ feet	0%

Radiation

In rivers and streams, oceans and lakes, the constantly moving water gradually washes away radiation contamination. Whether from a radiation-emitting weapon or a mutation, the amount of time radiation lingers in an aquatic area depends on the current's strength. This duration is outlined in the **Radiation Persistence Table**. Only in stationary waters, such as smaller ponds with no current, does radiation pose a longer-term threat; this contamination remains for half the duration listed for a specific weapon.

Radiation Persistence Table

Current Strength	Radiation Duration
Light	6d6 rounds
Moderate	4d6 rounds
Strong	2d6 rounds
Extreme	1d6 rounds

Sonic Weapons

Because of its density, water amplifies the effect of sonic weapons and mutations. However, these weapons are no longer directional: like **Electricity**, the sonic effect forms a sphere centered on the attacking character with a radius of effect equal to triple the weapon's normal range, and does double normal damage. Also, any creature hit with sonics underwater must save versus energy or be *deafened* for 4d6 rounds (see above for details).

Swimming and Slogging

Even without this heads-up, perceptive readers might remember an existing **Swimming** entry on p. 38 of the *Mutant Future* core rulebook. So why write up another? Basically, I was looking for something slightly different and a bit broader than those rules. If the originals work for you, by all means use them.

Unless your game uses a skill system, it is simpler to state that all characters can swim. If the character is aquatic (has a Swim speed), use her Swim rate to determine movement. All other characters use their regular movement rate cut in half. They may not be uplifted dolphins, but characters can keep their heads above water. If your game uses the optional encumbrance rules on p. 36 of the *Mutant Future* rulebook, the 50% reduction should be applied to a character's encumbered movement rate.

Occasionally, the ML needs to call for a swim check. To do this, the character tries to roll under her Strength score on 1d20. Success means she can move normally. If she fails her roll, the character remains stationary in still water or moves with the current (see below). However, if she fails by 5 or more, she begins to drown (see the **Drowning and Suffocation** entry above).

Swimming rules are used when putting your feet down is not an option, but drowning is. If characters are chest-deep in water, or walking on the bottom of a large body of water (using breathing gear or mutations), then they are slogging. Aquatic characters also use their Swim rate here, but terrestrial beings have their movement rate reduced by 75%. For example, Tanith has a normal movement rate of 120'; in the water, this becomes 30'. Again, the 75% reduction should be applied to a character's encumbered movement rate, if you use that optional rule.

These mechanics assume a character moving through calm water, but this is not always the case. The strength of moving water affects a character's speed, depending on whether she tries to move with the current, or against it. Riding the current is like riding an escalator: the character can either float and be carried along at the current's speed, or can swim with the flow and add her movement rate to the current's speed.

Each round a character fights the current by trying to swim upstream or stay in place by treading water, she must make a successful swim check, but with the appropriate **Swim Check Penalty** added to her die roll. If she fails, use the swim check failure mechanic described above. If the character succeeds, she can move, but the speed of the current is



subtracted from her movement rate. Even creatures or characters with a natural Swim movement are subject to this reduction. For example, Tanith, with her 30' movement rate, is trying to swim against a 40' per round current. She has a +2 penalty to her swim check, and, even if she succeeds, will be pushed 10' downstream.

Moving in Water Table

Current Strength	Speed in Feet Per Round	Swim Check Penalty
Light Under	20'	+1
Moderate	21-60'	+2
Strong	61-120'	+3
Extreme	120'+	+4

Thermal-Based Weapons and Mutations

Like their freezing counterparts above, heat-based weapons function differently in water. First, any weapon that produces open flame, like a flamer (see *WftW* issue #3 for details) simply will not work. However, some mutations and weapons will — especially things like lasers, which were designed to operate under water.

Similarly to cold-based weapons, thermal weapons boil a column of water 5' in diameter reaching from the weapon to the target. For example, Min fires a thermal laser at a giant octopus 60 ft. away. The water in that 60 ft. line is super-heated to a width of 5 ft. The damage is also 1d6 points per round of exposure to the boiling water, and the heat dissipates at the same rate as the cold described above. Because of the massive and instant temperature change, an evil ML might decide there could be a localized concussive element to firing a powerful thermal weapon underwater (much like touching off a firearm in an enclosed space). If that seems less than sporting, another possibility might be severely reduced visibility because of all the bubbles generated.

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