



Rabbit Rescue, Control and Management

A Guide To Sanctuary Rescue

8/23/2021

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Sanctuary Rescue

Trap, neuter and release, as done with cats, does not work well for rabbits. They continue to be at risk, attract predators and do damage, and they're hard to identify as they can notch their ears in fights. Trap, neuter and contain is best.

House adoptions can be labour-intensive, time consuming and fruitless. There are more rabbits than homes. And some rabbits just don't like humans.

Sterilized rabbits are affordably and easily housed in a natural sanctuary settings where they can be allowed to live out their lives in large groups.

Farm rabbits have traditionally been unsterilized and housed in cage systems. Pet rabbits are stuck in hutches.

Surprisingly few sanctuaries exist and even farm sanctuaries taking rabbits are not common. This can change. Education about non-traditional housing like converted coops, horse stalls, sheds and runs, well-fenced pastures, etc, is needed.



RABBITATS Rescue Society

info@rabbitats.org; www.rabbitats.org; (604) 398-4980; Richmond, BC

Rabbitats is a registered charity based in Richmond, BC, focusing on rabbit rescue and control.

The society designs and promotes predator-proof, sustainable, visually appealing and gently interactive colony environments for abandoned rabbits prioritizing low maintenance and sustainable care.

We seek out non-traditional destinations for adoptions and relocations.

The organization was formed by key entities involved in the rescue and relocation of close to 1000 rabbits from the University of Victoria campus in 2011.

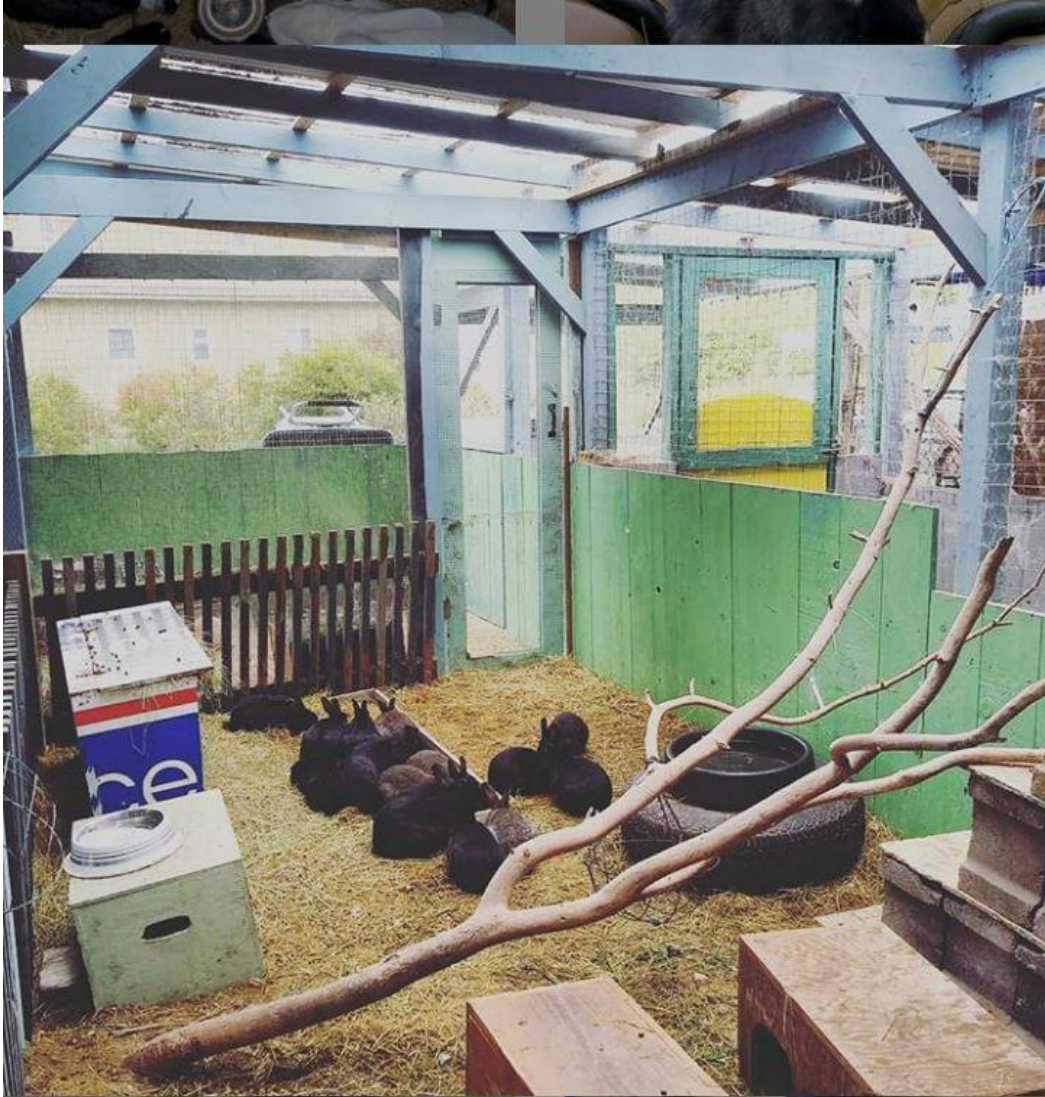
Rabbitats has since rescued well over 1500 abandoned pets and their feral offspring including hundreds from the Richmond Auto Mall and other areas in that city as well as from other municipalities.

The organization is headquartered on a farm in Richmond where it hosts a shelter and sanctuary.

It also maintains a large sanctuary in south Surrey, BC. and has implemented a number of smaller 'rabbitats' or micro-sanctuaries around the Lower Mainland.



Rabbitats Richmond Sanctuary



8/23/2021

Under construction 2019/2020



Construction

A 3D architectural rendering of a modular construction site. The structure consists of several interconnected rectangular units with a wooden frame and glass walls. A person is standing inside one of the units on the left. A tree is positioned behind the structure, and the entire scene is set on a green lawn against a light green background.

Summary

Enclosure designs depend on the usage, area predators, available materials, furnishings and budget.

All enclosures should have overhead cover with solid roofing, wire or netting

The ground should have a cement or rock base or be covered with wire to prevent burrowing

Walls should include sight blockers with a combination of wood and wire to provide protection from the elements and predators.



Rabbitats Richmond sanctuary plan

The rabbits' hay and other food needs to be protected from the elements, rodents and insects. Indoor / outdoor combinations are ideal.

Note: If new rabbits are expected to be added to a colony, to alleviate territorial issues, at least two partition are advised, allowing populations to be 'shuffled.'

Building supplies can NOT include treated lumber, chip board, oil-base paint, sod with pesticides or other toxic materials.

Ground

Extensive ground wire or solid ground cover is best to control or prevent burrowing.

Burrows can extend dozens of feet and while they can protect the rabbits from predators, they can compromise structures and the safety of humans walking above them. They also make the rabbits inaccessible.

If an enclosure is being built from scratch, the ground should be excavated and then cement, rock or wire should form the base.

If ground wire isn't possible, gravel or pavers can be used to establish pathways and form barriers around structures. When possible, burrows can be filled in to at least slow down the process. (The rabbits will not be 'buried alive').



Burrowing at the Precious Life Animal Sanctuary: While ground wire is installed six feet around the perimeter, the centre is understandably not protected at this ¾ acre facility.

Ground Wire

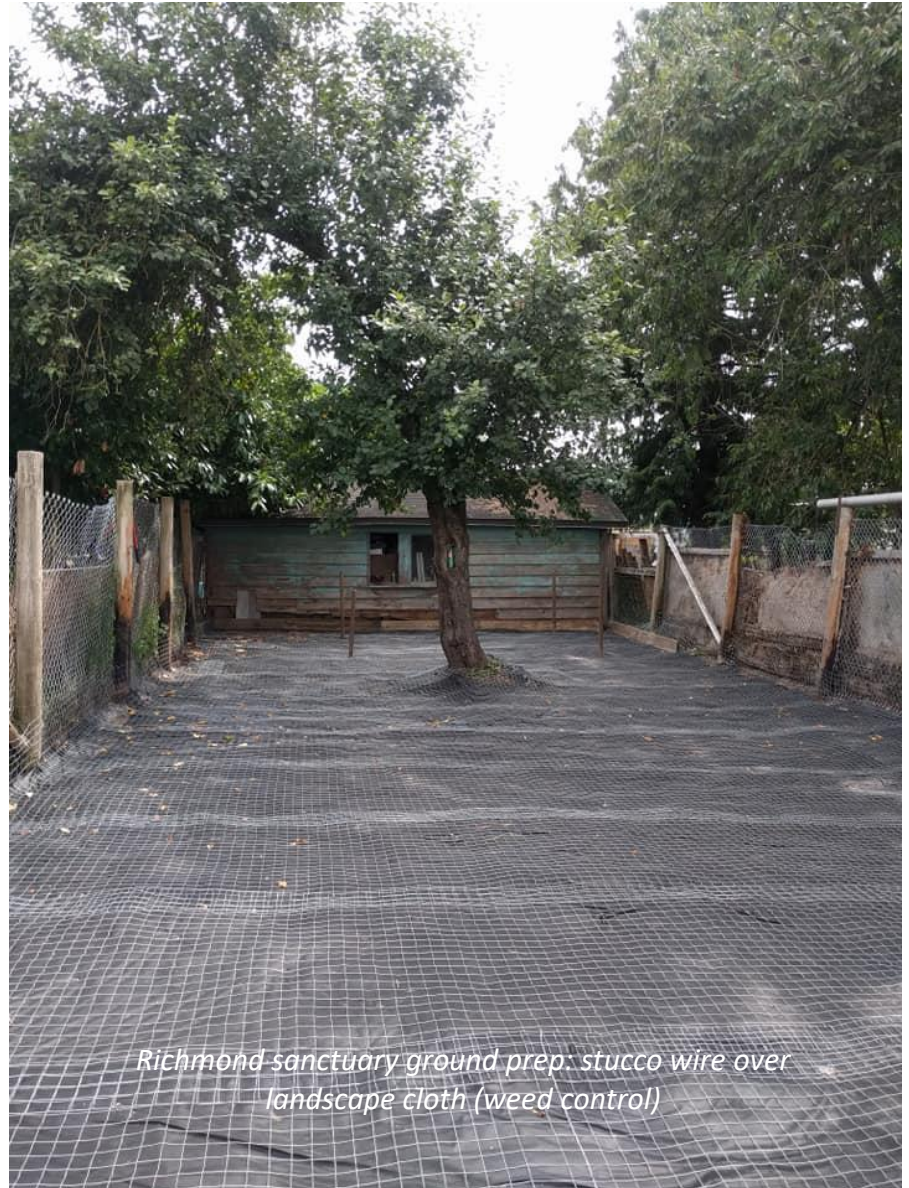
Ideally the ground wire is laid down on a flat surface and secured with garden staples or hooks.

The wire must be completely flat and secured:

- 1) to avoid the ground cover falling through the wire and causing it to raise up,
- 2) avoid exposed raised wire that the rabbits can chew or catch their feet on, and
- 3) to avoid wire catching on the teeth of a rake when raking the surface.

Ideally the ground wire is laid down on a flat surface and secured with garden staples or hooks.

Metal plates or pavers can help keep problem spots flat.



Richmond sanctuary ground prep: stucco wire over landscape cloth (weed control)

Wire

The wire used for the ground should be galvanized, a heavy gage and/or plastic-coated.

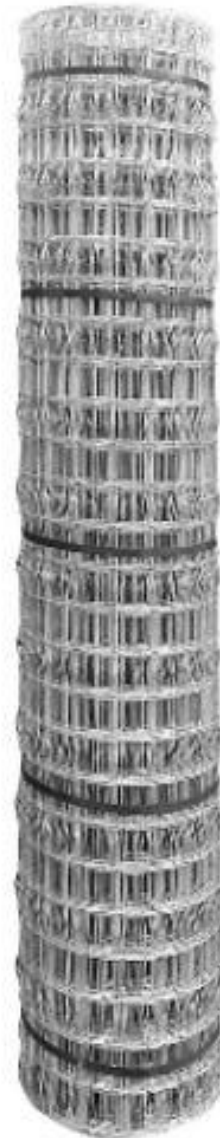
Chicken wire, hardware cloth, etc, will not withstand the corrosive rabbit urine or their chewing practices.

Rabbitats initially used a plastic-coated 2-inch hex however the rabbits were able to chew through an exposed section in about four years. A backyard satellite sanctuary used hardware cloth that only lasted a year.

The Richmond sanctuary subsequently used a stucco mesh for both the ground and the fencing.

We received a donation of leftover rolls of wire from a Richmond manufacturer.

We used six-inch ground staples to secure the wire flat, with limited success. Thin metal plates and pavers were used to help flatten problem areas.



Attaching Wire to Fencing

If wire is used, six inches to eight inches of ground cover should be placed over it

The fencing needs to be installed before the ground cover. The fence boards need to be flush to the ground to avoid a burrowing space between the bottom of the fence and the wired ground.

We will most often have the wire run under the fence and fold it up and attach it on the other side.

The wire attached to the fence must remain flat on the ground and be perfectly perpendicular to the fence to avoid the wire lifting up and allowing the ground cover to fall through.

The wire ends can be secured using boards, trim pieces or planks to affix the wire and cover sharp edges.



Ground Cover

Rabbitats has been using eight inches of sandy roadbase with success.

Soil too sandy and can be messy and tracked to other areas, and sand and dust can potentially be inhaled by the rabbits. Cover too rocky is hard on the rabbits feet and hard for them to get good traction.

Soil is messy and will turn to mud.

Roadbase open to the rain will harden but remain loose and pliable undercover.

Rabbitats has yet to try roadbase in an uncovered area but a covered area is easily raked to get rid of soiled hay and mix in the rabbit urine and droppings.

A 5 to 10mm roadbase is ideal, although the most common size is 20mm, which will work if the bigger rocks are removed.

Crusher dust has also been used successfully. Small clear crush mixed with a little sand should also work.

Products vary widely by location. Given the cost of transport, the best ground cover is usually what can be found close by.

NOTE: Cedar chips still need to be researched.



Fencing

Most rabbit predators hunt by sight and movement more than smell, thus solid fencing is a deterrent.

Enclosures with all-wire fences should ideally be built on a property with an existing solid fence but even then a small line-of-sight and wind blocker of at least 24" inches of wood, metal, plastic, landscaping cloth, etc, can lessen the stress from encounters with cats, dogs, raccoons, etc.

Enclosures with wire fencing can also incorporate burrow boxes with high backs for housing.

Wire (a 1" to 2" mesh is recommended) encapsulating the entire space is the best level of predator security.

Rabbitats traditionally builds a three-foot wood fence with roughly four feet of wire extending to the roof.

The closer to areas with predators, the taller the solid fencing (eg: the fence may just be 3ft at the front of a run but 6ft at the back). The types of predators in an area need to be considered.

A wooden fence with no wire should be five feet tall with no lip or furniture close by. Designs may need to take human access and viewing into consideration, especially when in a public space.

Double fencing for escape protection is preferred, but the space between the fencing needs to be accessible by humans to retrieve escapees.



Metal Fence Panels

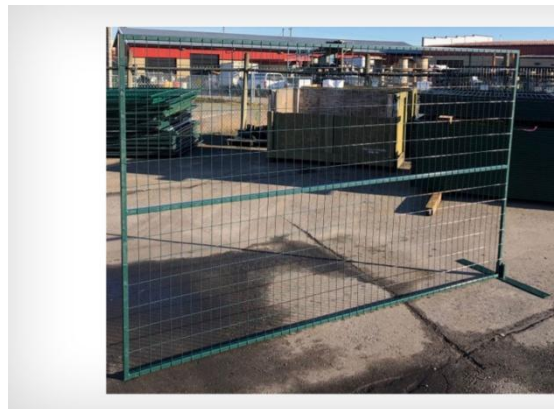
Recently Rabbitats, faced with the high costs of wood, discovered a type of metal fence panel that sits flat enough to the ground and is light enough to be used for rabbit enclosures. (Most temporary fencing panels have gaps and can be quite heavy).

The 9.5 ft panels weigh 40lbs to 60 lbs each and are easily zip-tied together to form a solid pen.

The panels are also being used to predator-proof the roof.

The enclosures, currently under construction, will still have wire on the ground and sight blockers installed

Roofing can be a canopy or be constructed from regular roofing materials.



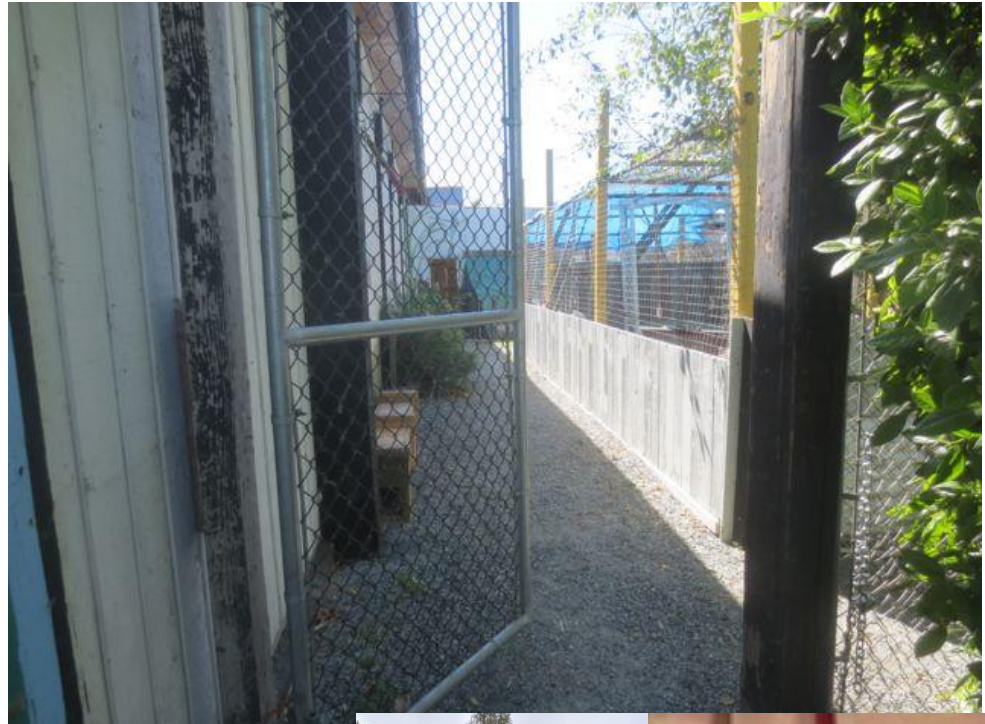
Gates

All entrances should be double gated if there isn't double fencing (an enclosure within an enclosure).

In some cases a cubicle is constructed to house a second entrance.

A 'stop board' will need to be installed flush to the ground and the gate swinging to meet it to keep rabbits from burrowing under the gate. If the board is higher than the fill, it will also serve as a slight barricade causing the rabbits to hesitate before attempting to escape.

The board can cause problems for wheelbarrow access, etc, so consideration can also be given to ramps.



Roofing

Roofing needs to deter flying and climbing predators and provide proper weather protection and drainage.

Smaller housing structures within an enclosure can keep the rabbits dry, but solid overhead cover is good for volunteer comfort and the integrity of the rabbit food.

Roofing design is often at the mercy of the budget and/or donated or available materials, which can include tiles, cedar shakes, plywood, metal, or corrugated plastic or fibreglass panels.

Consideration needs to be given to weight from snow, strong winds, available shade, the availability of dry feeding stations and volunteer access.

Rabbitats found a good deal on light corrugated plastic panels which, when installed correctly, have kept the areas dry and stayed secure in wind storms, although some enclosures have required additional tarps in the winter.

Given the climate in BC, we have yet to have an issue with snow, but 'broom slots' were incorporated. (Note: the design pictured needed modifications to keep the interior dry).

The alternating solid and transparent panels provide sun and shade.



Netting

For netted roofing, a lighter gage netting with a large mesh (4-inch measured corner-to-corner) allows snow to fall through and prevents small birds from getting tangled .

Rounded plastic discs (eg: tupperware lids) on top of posts holding up the netting will help reduce tearing.

Netting in this manner has a five-year life span although repairs via weaving, strapping or tying together tears can extend that.



Indoor/Outdoor

Indoor/outdoor housing presents great predator proofing and enrichment options.

The rabbits can easily be lured or herded from a covered run in the daytime or back into a shed or barn at dusk.

This is a higher budget option when building indoor housing capable of housing dozens of rabbits from scratch, but existing structures like barns, sheds and coops can be modified with 'bunny doors' and proper runs attached.



Barn Stalls

Housing rabbits in a barn stall is a comfortable option for the rabbits and their caregivers.

A 10x10 barn stall can house two dozen rabbits.

Sawdust can be used to cover rough cement and horse stall mats, and swept out as needed.

Neither sawdust nor straw should be used to cover smooth cement or linoleum. Rabbits require traction.

Our South Surrey barn has road base covering a wired dirt floor.

Litter boxes containing pine pellets and hay are often placed strategically to lighten the load on the ground and be more 'garden-friendly.'

The rabbits distribute their own hay from the litter boxes and feeders onto the ground, which is raked weekly.

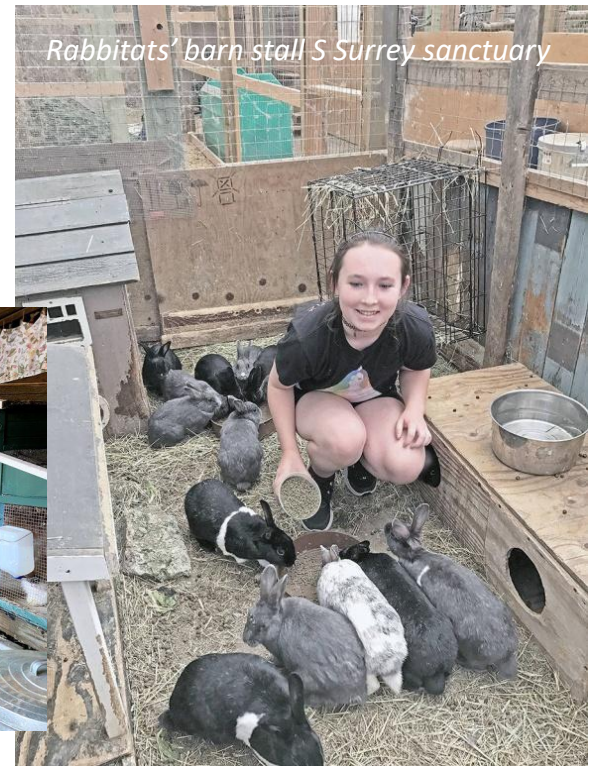
Straw is only used in wet areas.



*Top: pet owner barn makeover
Right: Rabbits south Surrey
Below: farm bunnies with bales*



Little Avalon Farms



Rabbits' barn stall S Surrey sanctuary



Rabbits' barn stall S Surrey sanctuary

Aerial Predators

Hawks, eagles and owls are among the most predominant rabbit predators. Solid roofing is always advised for safety as well as the comfort of the rabbits and the volunteers. Netting will also keep away birds of prey although some kinds can harm small songbirds and it's not great protection against some climbing predators.

If the area is too large or the budget too small to be fully roofed or netted, the ground needs a network of small shelters (two exits), tunnels, woodpiles, thick bushes and bird flight deterrents like crisscrossed wires, flags, umbrellas and reflective tape.

When incorporated for weather, shade cloth, tarps, etc, also provide raptor protection, as will vines and other vegetation growing on the wire.



Ground Predators

Ground predators can dig, climb or use brute strength to get at the rabbits. The combination of ground wire and a few feet of solid wooden fencing will prevent most of the burrowers and solid roofing and strong wire will deter most of the climbers. However, spaces using the recommended 4" netting also need robust electric and angled barbed wire as a deterrent from predators like bobcats and raccoons.

Weasels and snakes may be able to both climb and slip through wire, however they're only a danger to babies and are not known to do much damage to adult rabbits in colonies who can mount a defence. Care does have to be taken to use small mesh in enclosures with babies and special needs rabbits, and house rabbits lacking basic instincts can also be at risk.

Strong posts, heavy-gauge wire and solid roofing are best for areas with bears and cougars, along with blocking the rabbits from their line-of-sight.



Furnishings

Rabbits like small, dark spaces, small entrances and multiple levels mimicking their natural burrows. They also stake out territory every rabbit should have a space. The interiors can include 'burrow benches', purpose-build bunny houses, reconditioned dog houses, elements of chicken coops and other housing.

Benches should have small access holes to hiding boxes or houses for their homes/burrows. (This will allow the rabbits to feel safe and avoid human contact if they choose to). Holes the size of a gallon paint can lid are the average.

The benches and houses can be floorless for easy cleaning and emergency rabbit access. If the box has a floor, there should be hinged lids and the entrance holes should be ground-level to allow cleaning.

Food areas must be completely dry. Waterproof sheds are recommended for uncovered enclosures. Spaces viable by the public should be visually pleasing.



Feeders

Our favourite hay feeders are a wall or fence-mounted angled container able to hold a large volume of hay. The bars are typically 1.3 inches apart. Too wide will allow small bunnies to get into the feeders while too narrow makes it difficult for the rabbits to remove the hay.

Rabbitats has converted small cages into feeders with good success.

The tops of all hay feeders must be covered to keep the rabbits from jumping on top and soiling the hay. Extended tops and solid wood sides will help keep the feeders dry.

Rabbitats uses pans for salad and pellets and removes them immediately.

Water containers are on raised platforms and/or away from well-travelled paths to prevent the rabbits kicking in hay and dirt.



Storage

Hay bale and other food storage within each enclosure is recommended as the bales and pellet bags can be heavy to haul.

The hay and pellets need to be kept bone dry while being transported, stored and fed. Moisture can cause harmful mould.

If running water sources aren't available, jugs of water can also be stored in the enclosure sheds, as can the dishes.



Enrichment

Rabbits can be allowed to dig into earthen embankments in play areas.

Indoor and outdoor spaces can have multi-levels, low tables, ramps, tree stumps and other fun stuff.

(Note: Live tree trunks must be wrapped with wire to prevent damage).

Hanging or covered edible plants (to protect the roots) can be incorporated as a cost-effective food, treat and enrichment source.



Weather-Proofing

Shade cloth will keep the hot sun off the rabbits. Rabbitats also uses staggered transparent and opaque roofing panels to allow both sun and shade in the enclosures.

Shelter placement is important, eg: windows facing south or west may result in overheating.

Shade from trees and transpiration from plants will cool the area, so (edible) vines can be incorporated on the roof and sides.

During the winter, Rabbitats' wooden fences act as a wind guard while the wire above it is wrapped in plastic sheeting.

In our experience, the rabbits do not like straw in their houses and tend to soil and move it, possibly because they find it slippery. (To an animal that everything chases, traction is critical). A soft grass hay works better.

For freezing water, a heated pet water bowl with the cord not accessible at all to the rabbits, can work.

Rabbitats is hoping to experiment with solar power to keep water heated or moving.



Security

As noted under 'Predators', the outer perimeter fence should have an electrified wire running its entire length.

Barbed wire should be used sparingly as it can be a hazard to wildlife.

Security 'Bunny Cams' should always be incorporated as should trail cameras to assess predators

When the area isn't encapsulated, wooden 'stockyard' fencing -- pointed wooden posts or pickets can block the line of sight and will somewhat deter larger predators from climbing over.

Combination letter locks are incorporated to prevent human interference.





Rabbits in Colonies

Non-Traditional Destinations

Most municipal shelters and almost all rescue groups attempt to adopt out single and paired rabbits to indoor homes, another effect of the House Rabbit Society's strong presence.

While rabbits shouldn't be housed in backyard hutches, they can (and many should) be adopted to safe outdoor homes with the right criteria.

Chicken coops, barn stalls, indoor/outdoor shed set-ups and other methods should be normalized.

Rabbits can also be adopted out in colonies, allowing many more to be re-homed in a happier and healthier natural environment.

Hobby farms, sanctuaries, green businesses, markets, developers, institutions and community projects can also house rabbits under the right circumstances, eg: rooftop gardens, community centres, schools, city parks and others positioned to take small colonies of contained rabbits.



Colonies

Rabbits will all usually all get along when put together in a new space at the same time. Rabbits fight over territory, but if the space and structures are new, their territory hasn't been established.

Some scuffles will happen as they claim their spots, and a few rabbits will need to be removed if they are bullies, or being bullied, but the majority will form a cohesive colony.

It's best to house two or three smaller colonies in an area instead of one large one. That allows rotations and other options for safely introducing new rabbits or separating chronic fighters.

Some rabbits will pair up and shouldn't be separated, but others will form small groups that can change over time. Separation from a group isn't as much of an issue



Adding New Rabbits

Maintaining at least two separate enclosures will allow the rabbits to be easily switched to a new-to-them area making it easier to add new arrivals.

The partitions should be solid to prevent the rabbits from seeing each other. (This also holds true with penned and caged rabbits next to each other. A solid 'sight blocker' will reduce territorial posturing and marking).

Furnishings and other structures can also be changed around to break territory holds.

If partitions or multiple spaces are not options, and the space is large, groups of rabbits – preferably seven or more – can be added at once, preferably while the original colony is eating or otherwise distracted. Extra furnishings should also be added.

Rabbits bullying other rabbits can be separated temporarily, but generally rabbits bullying and being bullied should be pulled from the colony and tried in other colonies and if unsuccessful (after many tries), housed or adopted out alone or paired with just one other rabbit.



Maintenance

Larger colonies are best kept with a ground cover and not a bare floor to keep the rabbits from stepping in urine and feces and to keep maintenance manageable.

Toilet areas will most frequently be where the rabbits eat their hay as well as in 'communal corners' They also tend to mark territory throughout the colony space.

In some cases, corner litter pans and pans under the hay feeders will catch the majority of the rabbit output and keep the ground cleaner longer.

The undercover areas should be occasionally hosed down. Stalls and sheds with sawdust should be frequently swept and moped or washed. Houses with wood floors need to be washed with a strong vinegar solution. (Vinegar is ALWAYS the best cleaner for rabbit urine).

Road base provides the easiest maintenance. It can be raked weekly and heavily soiled areas removed as needed. Hay will get mixed in from the feeders and can be put on the ground, but too much hay will make it hard to rake.

The top inch or two of road base can be replaced every few months as needed, and a hose can be used to help control the urine. An annual clean can see fresh road base added.



The top enclosure using road base was the easiest to maintain. A bare stall floor needed daily cleaning. The plywood floor below was soaked with urine and needed to be removed in just a year.



Rabbit Density

Rabbits do well in large colonies and being able to house them in groups of 20 or more allows mass rescues to work.

Our South Surrey sanctuary has four pens averaging 25 rabbits per pen. The pen sizes average 150 sq. ft. The colonies have been stable with no fights, although rarely a rabbit may suddenly get picked on.

Our Richmond headquarters features a sizable 'L' shaped under-deck area estimated to be 300 sq ft on one side of the house and a smaller space on the other side, housing 80 rabbits in total.

The Richmond back area has space for four roughly 50ft x 25ft fenced areas and was targeted to hold 380 rabbits once fully developed.

A north Surrey 'micro-sanctuary' has a 10' x 10' shed with a larger attached run very comfortably holding 20 rabbits. The colony was originally 26 rabbits moved from a horse stall in Delta. Six were removed as potential bullies or victims after a few days in Bridgeview out of an abundance of caution as the caretaker was inexperienced.

Alternatively, the $\frac{3}{4}$ acre enclosure at the Precious Life Animal Sanctuary held just 100 rabbits, which has allowed the space to retain a level of grass and foliage.



LOGISTICS

8/23/2021

Rabbit Trapping: General

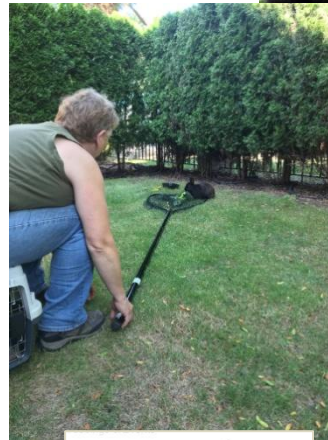
Rabbitats has used “Havahart” live traps baited with herbs, vegetables and cereal. (Note: Traps are frequently stolen and need to be monitored unless in secure areas).

Rabbitats are trapped by gaining trust. Rectangular fenced feeding stations were constructed to allow rabbits to enter and volunteers closing the gates behind them. (Remember to have a volunteer on the inside).

The rabbits were also bribed with food and grabbed or cornered with exercise pens.

Nets would lie flat on the ground with treats in the centre, and be quickly lifted up when rabbits were in position. (Note: care must be taken to have a large enough mesh to prevent the rabbits from getting solid footing to launch themselves out).

An inspection camera to see into burrows and bushes is also a handy tool.



Feral Rabbit Definition

Rabbitats considers rabbits 'feral' when they are born outside and not contained.

"Abandoned pets" are rabbits born in captivity and then set loose; the ferals are the offspring of abandoned pets.

We differentiate between feral rabbits, house rabbits and farm or hutch rabbits because we try to provide housing based on their comfort zones. A rabbit born outside most often prefers outside, house-born rabbits prefer life inside. (Farm and hutch rabbits can go either way).



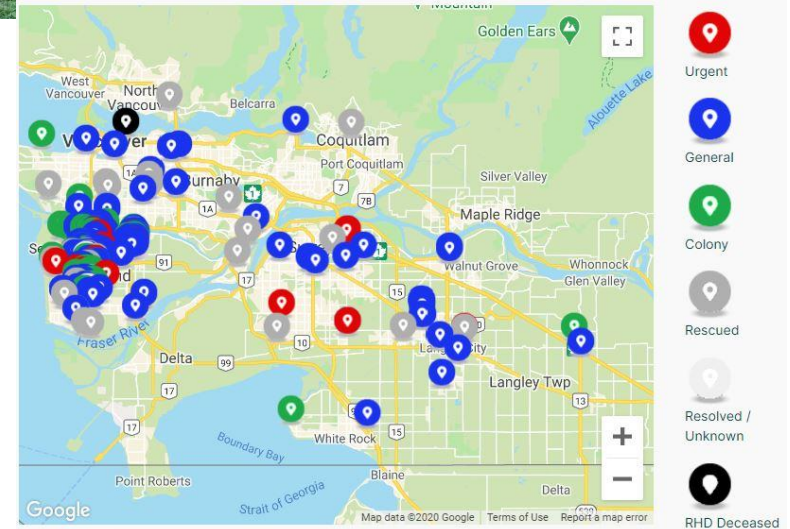
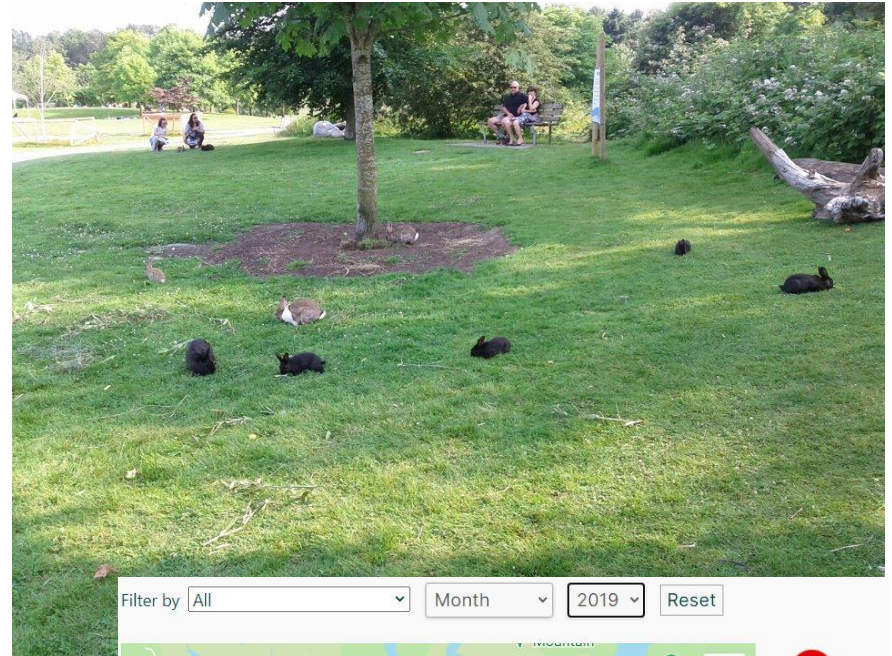
Feral Rabbit Trapping

Feral rabbit trapping should take place from November to January when their numbers drop, it's less likely babies will be left in the nest, and the rabbits will come into the traps for food. Trapping is almost impossible in the spring and early summer as the bait is no match for sweet spring grass.

Trapping takes place in early evenings.

NB: Feral rabbit control cannot be random, each area needs to be cleared methodically and completely, no rabbits can be left behind as they will quickly repopulate. Rabbitats' will not trap part of a colony or in an area where other colonies are close by

Rabbitats operates a tracking map at abandonedrabbits.com that allows us to identify area borders and numbers to determine the best long-range effectiveness of a trapping project.



Breeding Like Rabbits

Calls about at-risk babies flood the rescue in the spring and summer. When possible we also try and trap the mother, as hand-raising babies is time consuming. When that is not possible, we try and place the babies with surrogates. Trapping is difficult given that every female will be pregnant or nursing or both.

Leaving babies to perish in the nest is a major concern. Advance research on the rabbits being trapped is always strongly recommended.

Especially in the spring and early summer, they are pregnant again the day they give birth. (Rabbit trappers observed a mother giving birth on a lawn while a male mated with her, and 31 days later, she had another litter).

Babies are problematic as they challenge the rescue's capacity quickly. They also need to stay under observation until they're old enough to be sterilized, which can be up to six months.

Offspring born and raised in a house become 'house rabbits' requiring hard-to-find indoor homes.

Observation tells us the litters have been bigger and more frequent the past few years. This is literally a growing problem.



Intake

Rabbitats' incoming rabbits are placed in an indoor holding area for assessment and documentation.

Abandoned house pets will continue to be housed indoors while the ferals and sturdier unadoptable pets are housed in outdoor enclosures or barns. With feral colony control, all feral females, along with babies and young juveniles, are housed together to await their spays. (As noted, a 10x12 horse stall can hold 30 rabbits). The older males are housed separately and neutered as soon as possible.

A month or more after their spays and neuters, the rabbits are merged into colonies. The timing with mass clinics works better than individual operations. Rabbitats initially operated without quarantine procedures in place and did not have issues with transmissible diseases, however with RHDV2 appearing in the area in 2018, quarantine areas became a priority. Volunteers were directed to quarantine new rabbits for 10 days in a climate-controlled tour bus that was purchased and the inside stripped down for this purpose. This has proved more stressful for the ferals, but ultimately necessary.



Sterilization

Rabbitats, like all legitimate rescues, spays and neuters our rabbits.

Our mortality rates have been very low and we have been fortunate to have supportive veterinarians offering substantial discounts or volunteering their time outright.

The costs when taking rabbits to the clinics work out to between \$80 and \$95 per rabbit. If we're buying supplies and using volunteer vets at donated clinics, the costs range from \$40 to \$50 per rabbit.



Identification

Rabbitats initially we tattooed all sanctuary rabbits with our own tattoo numbers identifying males and females while only using the vet registry numbers for adoptable rabbits, however we are now using the vet registry number for all rabbits while also trying to tattoo and additional 'n' or 's' to easily determine the sex. The tattoos fade over time.

Most recently we have been switching to microchips, which are costing between \$4 and \$8 per rabbit, depending on the company. We are using the smallest 7mm microchip.



Size: 1.25*7mm

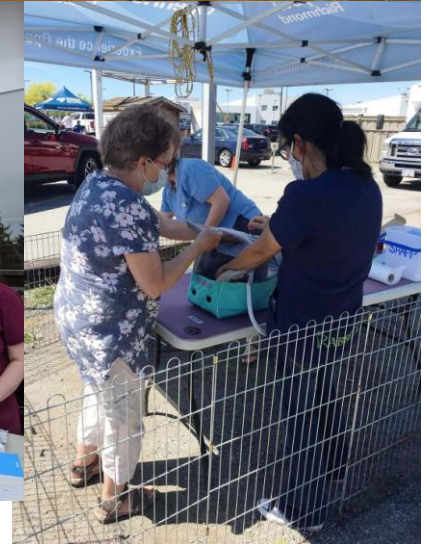
RHDV2 and Vaccines

Rabbit Hemorrhagic Disease Virus (RHDV2) first appeared in Delta and Vancouver Island in February of 2018, the first major outbreak in North America. It killed thousands of domestic European rabbits, including ferals, pets and breeder rabbits.

Rabbitats ultimately vaccinated 600+ shelter and sanctuary rabbits and continues with annual boosters. We purchase bulk vials containing 50 vaccines from the BC Animal Health Center at cost (roughly \$150 each, transport and tax included) and vets have been donating their time.

We have also staged drive-through clinics for the public and positioned them as fundraisers to cover our own vaccine costs.

In 2020 a new variant of the virus, this one affecting native hares and rabbits as well as the European rabbits, broke out in the US Southwest and has spread to Alberta, Montana, Idaho and Oregon, making mass vaccinations here in BC critical.



Transporting

A small to medium cat carrier with solid walls and top and holding at least two rabbits is the most comfortable form of transport for them. They prefer to travel in small cramped (to us) quarters, the comfort zone of a 'burrow'. Strange rabbits housed together in the carriers rarely fight, especially while the vehicle is in motion.

A Dodge Caravan has held up to 60 rabbits. For long trips, we put wood pellets on the bottom of the carrier and layers of newspapers on top thus if they soil the paper, the top few layers can be peeled off for a fresh dry start. We'll put hay and wet greens in the carrier, but no water as they can get enough hydration from the veggies without having spilled water or water bottle spouts sticking through the door. The rabbits require very few breaks to 'stretch their legs', although that can be accomplished by putting carriers inside exercise pens.



Diet

The primary diet for contained rabbits is hay which can be augmented with grass, dandelions and other weeds (pesticide-free, pulled not cut, and unsoiled by other animals).

Fruit tree branches like apple and pear, leaves intact, are popular, as is willow. (Note: fruit trees bearing seeds are recommended, but not fruit trees bearing pits).

The rabbits also eat cast-offs from producers and grocers like carrot tops, beet greens, celery and broccoli leaves, radish tops, parsley and cilantro stems, kale and chard stems, the outer cabbage leaves, fennel ends and more.

They should also get a limited amount of rabbit pellets. The pellets should be consumed in one setting and not left out for free-feeding. The brand should not contain fruit, seeds or grains. The fibre content should be over 20% and the protein 14% or less. (Timothy hay pellets are optimal).

Rabbitats mixes multiple brands together but prefers denser extruded pellets for dental health and to lessen the choking hazard. The pellets are spread out on trays and not bowls also to help prevent choking.



Medical Issues

The level of medical issues often depend on the rabbits' origins. The feral rabbits have proved healthier than regular house rabbits when it comes to common issues like stasis, dental disease, respiratory, ear or urinary tract infections. Rabbits from hoarding situations, inbred pet breeds, however, can have poor health in these areas.

Colony rabbits in general have proved to be healthier than house pets. The most common issue is bites.

Injuries are frequently seen in feral street rabbits although they tend to heal quickly.

While head tilt is common in pets (mostly originating from ear infections) ataxia (wobbly) from unknown or various causes including trauma and parasites is more common in ferals. Syphilis is also common.

Communicable respiratory diseases are rare, although occult pneumonia has been seen in individuals.

Many of the rabbits brought in from the streets have syphilis, worms, coccidia or other parasites, there have been no transmissions.

Flystrike can also be an issue especially if ailing rabbits are left untreated.



Health Checks

Health issues are almost always caught quickly.

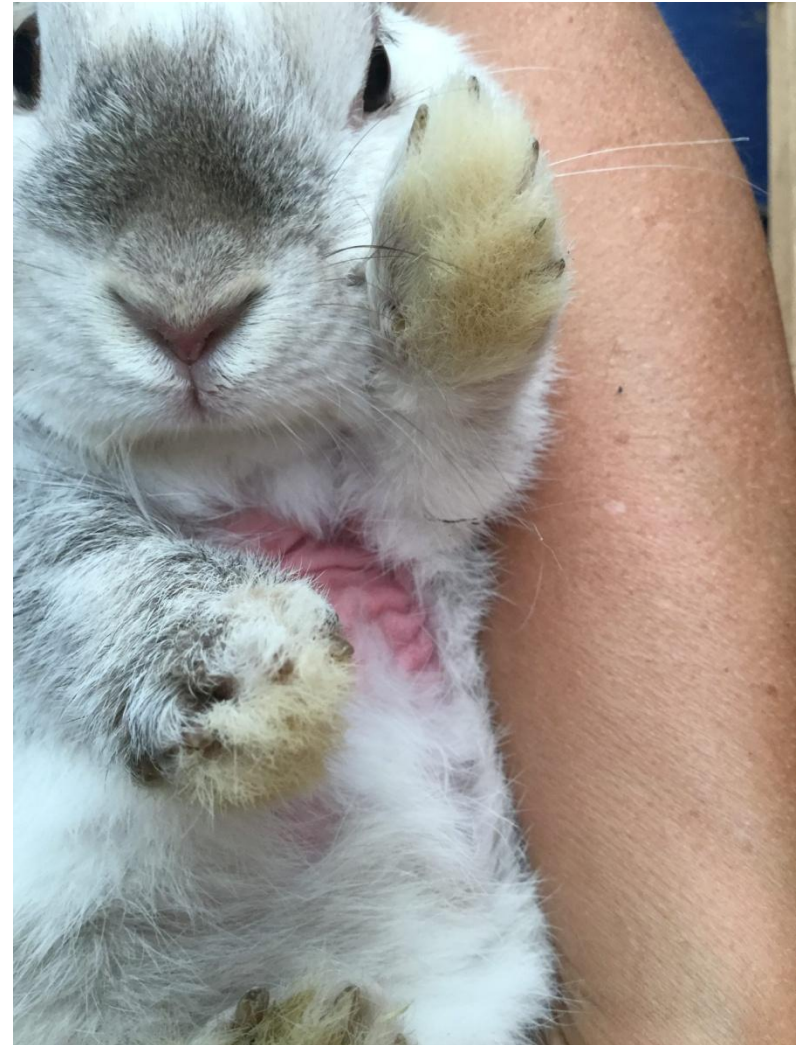
Sanctuary volunteers identify ailing rabbits by assessing them when fresh food is put out for the colony. Observations are made re: rabbits who may be moving slowly to the feeding dish, and the volunteers check all the houses to make sure no rabbits are not eating.

It's important to make sure their bottoms are clean and dry and to watch for wounds to prevent flystrike.

Full health checks are conducted at least every two months along with any grooming needs.

Bites are best assessed the day after a fight when they are starting to scab over, as fresh bites are hard to spot.

The wounds are treated with betadine.



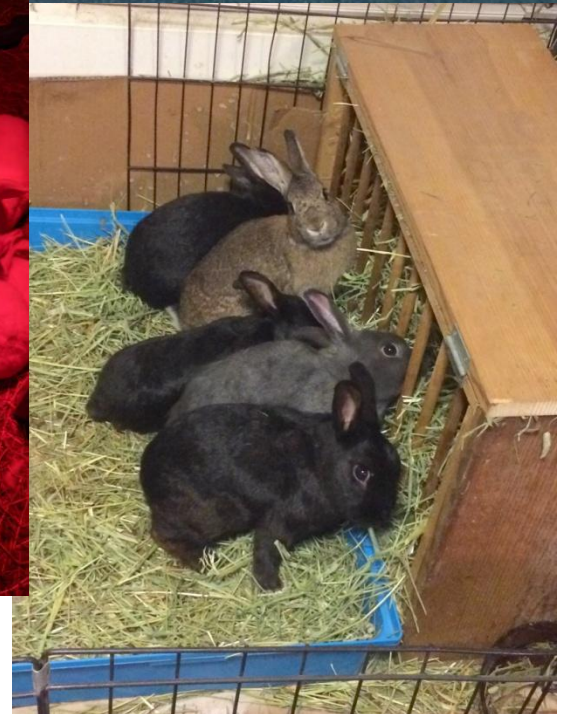
Aging and Special Needs

Our ataxia bunnies are often housed together in a special needs colony, as are our 'tripods' who have had limbs amputated although the latter don't require extra care.

As many of our rabbits were trapped as adults starting in early 2012, the population is aging. We have prepared a 'retirement colony' space under the enclosed deck in Richmond with heat lamps and weather protection, where they will be easier to monitor. We also purchased a large heated construction trailer.

Roughly 50 old rabbits are scheduled to move from Surrey to Richmond and 75 young Richmond rabbits will be going to South Surrey to replace them prior to the cold weather setting in.

The aging rabbits will most often have cancer and kidney disease, neither being treatable, so these vet bills are not astronomical. We follow advice from our vets and will euthanize and not prolong their suffering.



Rabbit Mortality

Our Surrey sanctuary had a peak of 125 rabbits with colonies of adults added from 2014 to 2016. Many were caught as adults from late 2011 through to early 2016, thus the estimated average age is currently 8+ years.

Approximately a dozen rabbits were fostered out as a colony, a dozen were rehomed individually and 30 or so have died. Roughly 70 remain (mid-2021).


Aging rabbits are developing cancer, kidney disease and hind end paralysis mostly just requiring palliative care.

Two young sanctuary rabbits are thought to have died at play after running into fences or posts at high speeds. Sudden death from an unknown cause has been rare at both our shelter and the sanctuaries.

The infant mortality rate at the shelter, however, has been high, especially early in the year with newborns from recently trapped mothers.

Adult rabbit deaths at the shelter not from age-related issues were usually rabbits already challenged when they came to us.



A close-up photograph of several light-colored rabbits, possibly white or cream, huddled together in a nest made of straw or hay. The rabbits have long, upright ears and are looking towards the camera. The image is slightly faded, giving it a soft, ethereal appearance.

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