

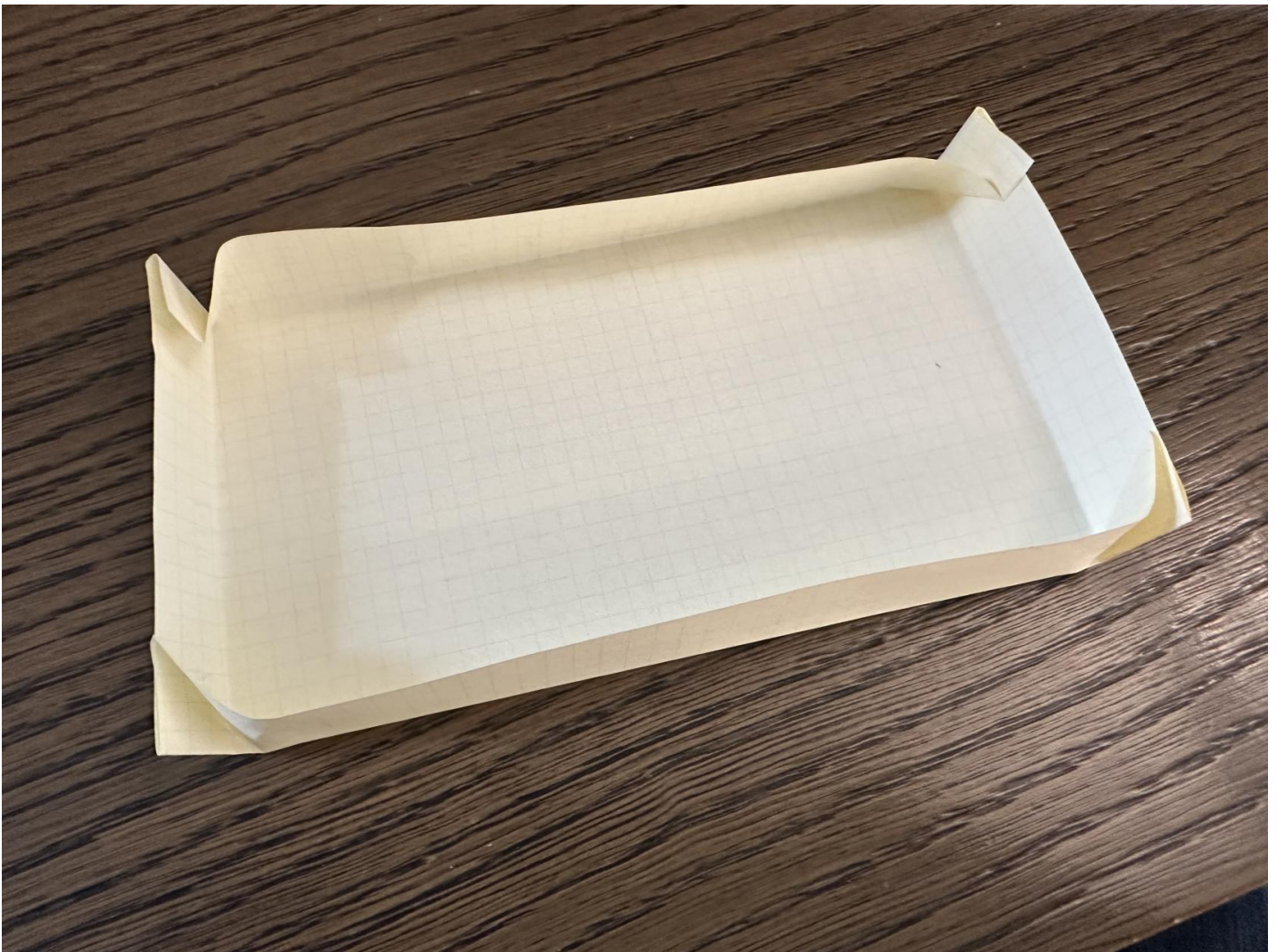
# Gayflower Leak Prevention

If one of the black or grey water tanks leaks, it pretty much goes straight onto the playa. There was a small leak in 2024 mostly caught in a bucket. This page is mostly a thought experiment in how we could solve this by constructing a bathtub out of a pond liner.

## The idea

We install a "bathtub" around the entire grey/black water tank area to serve as secondary containment. This could be made out of a 45mil EPDM Pond Liner which seems like it would be bulletproof. There is also something called RPE which is even stronger.

The pond liner would be folded in the corners as follows:



It is probably enough for the sides of the liner to be 8" - 12" to create a large basin that could handle a serious spill.

At the front of the truck, the corner folds would be permanently glued together with EPDM pond liner adhesive.

At the rear of the truck, we would construct a low gate (like on the back of a pickup truck), hinged at the bottom, out of wood, with very heavy duty latches holding it up. The gate would be connected to the pond liner. It would remain up/closed during the week to seal the bathtub and provide protection. It could also be lowered off-playa to drain the tanks using the hoses provided. In the event of a an emergency spill, we would pump the grey water out of the bathtub before attempting to open the hinged door.

## Remaining Questions

I don't know how easy it would be to retrofit this, since there is a subfloor above the tanks. Here are some questions to study:

1. How hard is it to work in that crawlspace?
2. How is the subfloor above supported? Is it supported entirely from the sides, or are there columns coming down in the middle which would interfere with layout out a pond liner?
  - 2.1. If there are columns of some sort, can they be removed temporarily so that the pond liner, with some protection, can be slipped underneath.
  - 2.2. Otherwise would we be able to do two separate pond liners, for left and right sides of the truck?
3. What are the exact dimensions of everything?
4. While we're working on this, could we reinforce the subfloor in back which holds the fresh water tanks?

## 2025 Shortcut

For 2025, knowing that there is already a little bit of a black liner on the floor (as seen in this picture), we could probably improve the situation a lot by just extending the liner in the very rear to create that flap in the back. This can be done without taking out the tanks and relining everything. It would probably be sufficient to prevent leaks like this year's small leak, although it would not be that helpful in case of a more significant failure.



How we might do this:

1. Get a 2x10 board (at least the length that the interior is wide, probably 101"). Maybe this is 2 pieces of 1" plywood glued together? Cut it to size in Empire.
2. Get a bunch of hinges so it can open and close
3. Get some latches for the sides and middle to hold it closed
4. Get a big sheet of super thick EPDM, say, 15' x 3'. Glue it to the existing liner and then run it up the side of the wood board.

There is not that much space for the new door behind the rearmost tanks. It might have to be mounted in the steel frame of the truck doors.

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