Case Study: Background

In your small town is a pretty remarkable company who has the key to the safety of water systems around the world. This small town is called Roaring Falls, and it is in the midst of the rural state of Wallaloopa. The factory is called Walliallia, which means "water for everyone," and has been operating since 2015.

Up until the early 2030's, if there was no access to clean water, people had to put a pot on the stove and boil water for drinking. People in very rural areas and in the developing world often went without clean water for months and even years at a time when there was no access to potable water.

This changed in 2032 when Walliallia, an engineering technology company, launched their water purification filter. They created a round purification disc about three inches in diameter. It was then marketed, sold, and distributed, and is now present at the opening of water pipes in almost every facility and home around the world. This new technology meant that clean water was suddenly available for everyone around the world, whether their water was stored in a town reservoir or brought up from a well.

These discs are relatively inexpensive, especially compared to other purification systems, because of their compact size and availability of the filtering element, carborantorum (a helpful by-product of crude oil purification). The research and development of the product was funded by the big oil companies in cooperation with remediation scientists, and it was discovered in a happy accident.

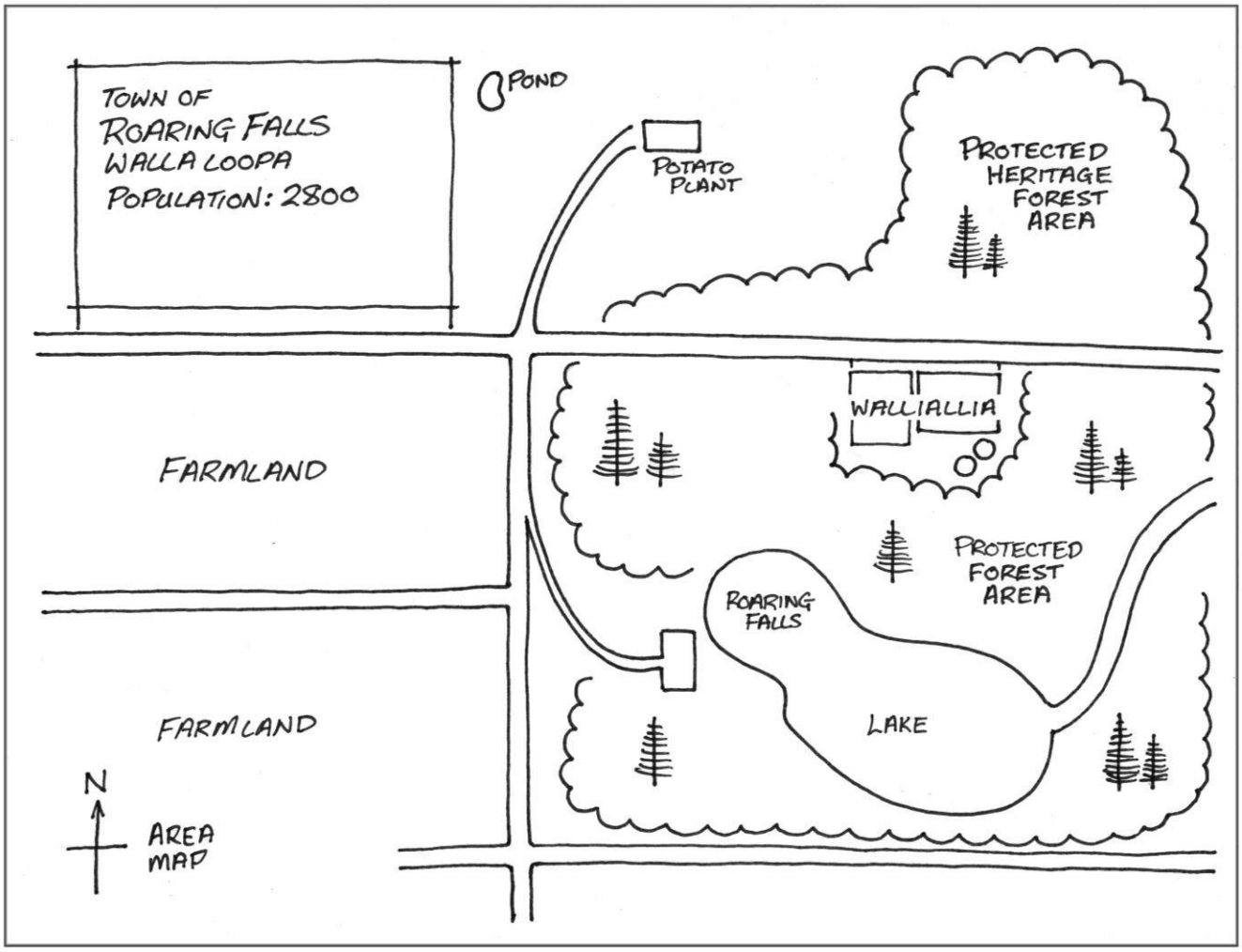
The product does require delicate production practices to maintain the integrity of the filtering material, and the filters must be replaced every 120 days. Despite these drawbacks, the discs have been distributed around the world and every human being in every community now has clean water.

Early in production, a crisis audit was undertaken at Walliallia. The team recommended that a second factory in another region be built. They explained that there was a significant risk that distribution could be interrupted since there was only a single plant providing the filters to the entire world. The audit team felt that it was highly probable that some kind of disaster could take the original factory out of service, at least temporarily.

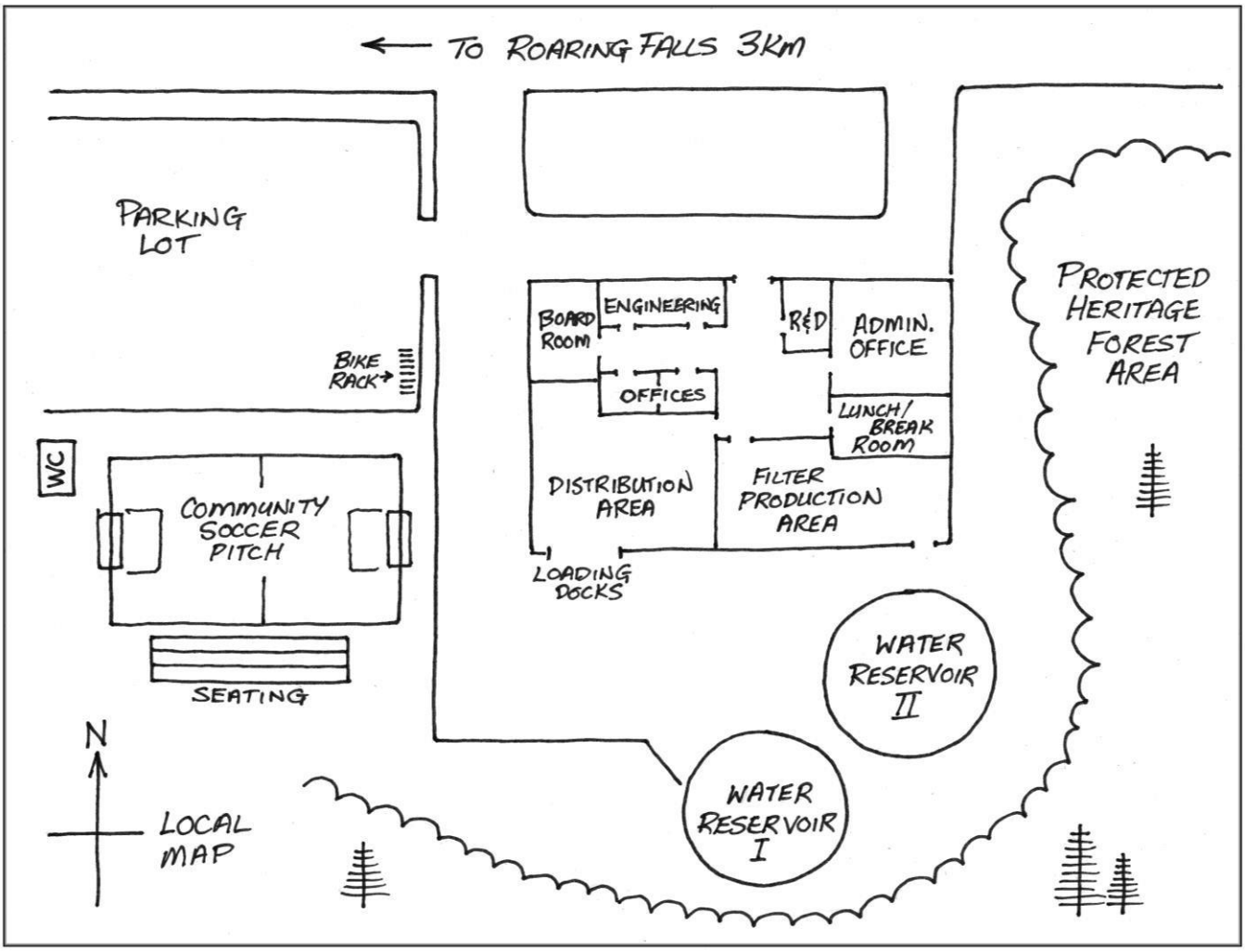
There was one delay after another, including ongoing pressure to cease crude oil production. As a result, there has never been a second factory built. The Walliallia board of directors knew about the risk, but they also secretly liked having control of the only factory in the world to make those filters. Distribution remained successful as world governments, non-profit groups, and ecological organizations helped successfully distribute the filters to every corner of the world. Occasionally, someone on the board would mention how impressed they were that in a world continually barraged by acts of war, riots, and unrest, that the water system was unthreatened.

Worldwide, incidents of disease are decreasing, and this result alone was largely attributed to the prevalence of clean drinking water.

Area Map


TOWN OF
ROARING FALLS
WALLA LOOPA
POPULATION: 2800
POND
POTATO PLANT
PROTECTED HERITAGE FOREST AREA
WALLIALLIA
FARMLAND
PROTECTED FOREST AREA
ROARING FALLS
LAKE
FARMLAND
N
AREA MAP

Local Map


TO ROARING FALLS 3KM
PARKING LOT
BIKE RACK
WC
COMMUNITY SOCCER PITCH
SEATING
BOARD ROOM
ENGINEERING
R&D
ADMIN. OFFICE
OFFICES
LUNCH/ BREAK ROOM
DISTRIBUTION AREA
FILTER PRODUCTION AREA
LOADING DOCKS
PROTECTED HERITAGE FOREST AREA
WATER RESERVOIR II
WATER RESERVOIR I
N
LOCAL MAP

Exercise One: Gas Line Explosion at Water Plant

Scenario

Date: Monday, May 18, 2043

Time: 7:45 a.m.

Crisis: Gas Line Explosion at Walliallia

It's early in the morning at Walliallia, as the sun is gaining height and the birds are singing their morning greetings. The night shift, a small crew of ten people, is preparing to leave the plant by 8:00 a.m., and the 50 daytime employees are coming in. It seems just like any other Monday as cheerful hellos are exchanged and people hang up their jackets.

A low rumble starts to vibrate through the building, and people look at one another to see if they have all heard it. The rumble builds in just a few seconds, and all of sudden pieces of the concrete building, equipment, and people are flying about as a deafening roar takes over. A fire starts instantly and can be seen through the hole where the top corner of the building has been blown off. As the debris settles, there are moans, cries for help, and the roar of a fire gaining momentum.

The scene quickly becomes chaotic as the uninjured come to the aid of the fallen. Two of the employees run into the chaos with fire extinguishers, but for now the flames seem to be outside. After a quick look around they head outside to investigate.

The devastation outside is shocking. The initial fireball has scorched the trees nearby and the edge of the woods is consumed in flames that are so hot they are almost invisible. It is easy to see through the wreckage that the incoming natural gas line has blown up, and there is fire coming out of the wreckage as though it is being shot through a flame thrower. Their fire hydrants are no match for this.

One of the men remembers his cell phone and pulls it out to make an emergency call, but there is no line available. He looks around and sees that the cell phone tower that had been on the top of the building has collapsed. The view of what's left of the building stops him in his tracks. The entire north wall of the building has collapsed, and the few pieces of it that are left look ready to topple over. There is a fire inside the building and they need to get their people out. They also need a way to call for assistance from the fire department and get ambulances in.

Inside, the administration area is all but completely destroyed. People are pinned under furniture and a fallen wall. Computers and phones are dangling off the edges of upset desks. The power has gone off, and the few phones that are in one piece are not working.

Within 40 minutes of the explosion, many people have been removed from the building, but some remain trapped. Fire has destroyed 80% of the filter production area, including materials that were stored for distribution.

Assignment

- Using your local map, identify areas that need isolation and protecting.
- Based on the response needed for this incident, identify potentially suitable locations for an Emergency Operations Center.
- Based on the incident, list which members of the Crisis Management Team need to be located and to report to the EOC.
- What criteria do you need to consider before reassigning staff? How might union agreements effect and reassignments?
- Identify who (employees, other area residents, and businesses) may be affected by the incident.
- Identify the effects that a shutdown or unplanned production stoppage will have on distribution.

Exercise Two: How Are You Feeling?

Scenario

It took a lot of work to get the production back on line at Walliallia after the natural gas explosion, but production and distribution were back in order within a couple of weeks using temporary shelters, until the main building had been reconstructed.

There were several serious injuries and seven people were killed by falling debris and fire. New people who had been hired to rebuild and re-staff the company felt like outsiders, even a year and a half later. They had not experienced the trauma that day, and people who had did not want to talk about it. They did not feel they had much in common with the new staff.

In addition, Walliallia needs staff with special skills, and with the loss of so many employees, they had to recruit from farther afield. The replacement staff did not live in the community for the most part, most of them preferring to commute an hour or longer each way rather than moving into Roaring Falls. This added to the animosity between the old and new staff.

This winter there has also been a lot of influenza to deal with. There is a pandemic underway, and despite rounds of immunization, people washing their hands and staying home when sick, it seems to be unavoidable.

Senior manager Dave thought he had avoided it, and as he returned from halfway around the world where Walliallia II was being built, he felt something that he had not felt for a long time. He had to stop and think about it for a little while before he realized that the feeling, so long absent, was happiness. He was happy! He had recovered from the explosion after several weeks with his leg in a cast and months of physiotherapy, but it had taken a lot longer for his soul to recover. Now, as he was heading back after celebrating the opening of the new production facility he smiled to himself. Then he sneezed. And sneezed again, and again. The people sitting beside him on the plane looked at him warily. No one wanted it to be a case of the 'flu, but they all knew this was how it started.

When Dave arrived home, he greeted his young family at the airport, but his seven year old son was not with his wife and daughter. Roger had a dreadful cold, his wife explained, so he was being looked after by his grandmother at home.

Dave got home and went to check on his son. The boy's eyes were red rimmed, his nose was red, and he had a cough that was so deep it sounded like it came from his toes.

"Has he had a fever?" Dave asked his wife.
"He still does," Maggie replied, "although it's not as bad as yesterday."

It turned out that Roger had the 'flu, and a very serious case of it. Dave also had the 'flu, and although they had contracted them in different countries, they turned out to be the same strain that was identified as part of the pandemic.

Maggie worked as a nurse at the community hospital, so she tended to wash her hands a lot more than her children did. She had also been inoculated against the 'flu and made sure that her booster shots were up to date, as had her family. She did not develop symptoms of this pandemic influenza, but it wasn't long before both her children were ill, as well as her husband and her parents.

However, the hospital was full, there were staff from the hospital that were off sick, and the beds were filled with people who were too ill to stay at home.

Maggie had to make a decision. Her family needed her. Her hospital needed her. Surrounding communities have been struck with illness too, and all of them were asking for help from Wallaloopa.

Assignment

- What messages need to be sent out to the public about reductions in staff at the hospital?
- What information needs to be shared with hospital staff about the community response to the pandemic?

Exercise Three: The Last Question

When it comes to crisis management, it's difficult to predict everything that will come up. We know, however, that the more we can prepare, the better we can resolve or at least mitigate the effects of a particular event.

With the availability of travel and the movement of goods internationally, the threat of a pandemic is not something to be trifled with. How will your company manage if 10 or 25 or 60 percent of your people are out sick for a prolonged period of time?

Our last question to work through today is drawn from actual examples of ethical issues that impact hospitals and nursing homes around the world.

Scenario

You are on the board of directors with the local health region, and you are observing the number of hospital admissions increase. This form of influenza has not been fussy – people of all ages are succumbing to it. Your small hospital has 12 respirators, and they are all in use today: two for patients who were in car crashes and 10 for patients with influenza. Everyone who gets respirator treatment survives the pandemic, whether they are children, adolescents, adults, or the aged. You know that as the pandemic spreads, you will need more respirators. There are four people in the emergency department right now who need respirators, but yours are all in use and there are none available in the district. Patients who are not able to get a respirator for treatment will most certainly die. The nearest hospital (30 miles away) has sent a request to borrow respirators from you.

Assignment

How will you decide who gets a respirator in your own hospital?