

# Sustainability— the Good, the Bad, and the Green



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Portland Spirit Dinner Cruises operates five vessels and conducts more than 2,000 cruises annually. In our operations, we try to maintain procedures and practices that reinforce the “green” thinking of the Northwest. In early 2007, TravelPortland, our local convention and tourism association, informed its membership that business referrals would be made only to those members who met their specific environmental standards. All local companies were given until the end of 2007 to comply. Since we receive a substantial amount of business from TravelPortland referrals, we made it a priority to meet their sustainability goal.

What is sustainability? Sustainability has to do with reducing your impact on the planet by recycling, using alternative energy, being “carbon neutral,” composting, using recycled products, buying local products, using mass transit, and not shaving (OK, I made that one up).

While some elements of sustainability are common sense, there are also some that are controversial. I will attempt to give you an “on the ground view” of these issues as they relate to our dinner boat company. Some of my conclusions are unconventional; each individual needs to determine his or her own company or personal involvement in the sustainability concept.

## THE “GOOD” OF SUSTAINABILITY

After an extensive review of all qualified certification programs that TravelPortland recognized, we felt most

were impractical for us due to the bias toward land-based operations like hotels and restaurants. We eventually selected the RecycleWorks Program, which is administrated by the city of Portland’s Office of Sustainability, as it had requirements that were general enough to include vessel operations in its criteria.

We then set up a “green team” comprised of volunteers from every department in the company. The team was assisted by a city of Portland employee from the Office of Sustainability, who was invaluable in providing advice. We developed a list of green practices/actions, and a budget to meet those needs.

### A Bump in the Road

During this process, we discovered—to our dismay—that our existing paper recycling containers were actually being dumped into the general trash, even though we separated it in our office. There was apparent confusion with our trash collector; he had not provided us the correct containers for paper waste when we moved locations eight years prior. We generate a lot of paper in our business and it was disturbing to find out that we were not doing one of the “basics” of sustainability!

With paper recycling corrected, and feeling reinvigorated, we looked for more ways to reduce paper usage and get more products into the recycling waste stream. For example, our main photocopier/printer generates about 500,000 copies per year, so we worked to use the double-sided function and have changed the habit of



“I need a hard copy as a backup to the computer back up.” This has reduced paper usage by about 20 percent.

### **Back on Course**

Annually, we print about 200,000 brochures and 800,000 maps. This year we switched to recycled paper. There is a cost increase, but it seems the right thing to do. We opted to go for the FSC (Forest Service Council) grade of recycled paper. The FSC logo certifies that the paper comes from well-managed forests, controlled sources, and recycled wood or fiber. The increase was about 2.5 percent of total print costs, for a total of \$3,000 additional cost.

In our office break room we would use about 10 rolls of paper towels per month. One of our green team members volunteered to bring in 50 cloth/cotton napkins and to take them home to be washed if we eliminated the paper towels. We made the switch, and it was so successful that we have instituted a rotation in the office for washing the napkins.

Every computer location companywide has a paper recycling bin next to it, and we keep them full. The savings from using less paper has allowed us to absorb the nominally increased cost of using FSC paper in our daily products, which was formerly not a budgetary consideration.

Another simple project was to acquire and replace, as needed, light bulbs with extra-long-life power savers. We are only installing the bulbs as the old style burn out, and only in areas where the light is not turned on and off more than a couple of times per day. This is a slow process, but we decided that it would be wasteful to replace all the old-style bulbs while they were still useful. We also have an aggressive “turn out the light” program in place to reduce power usage. Another easy project was collecting scrap metal for recycling. In the past year, we have sold this scrap metal for about \$2,000.

### **Food Waste**

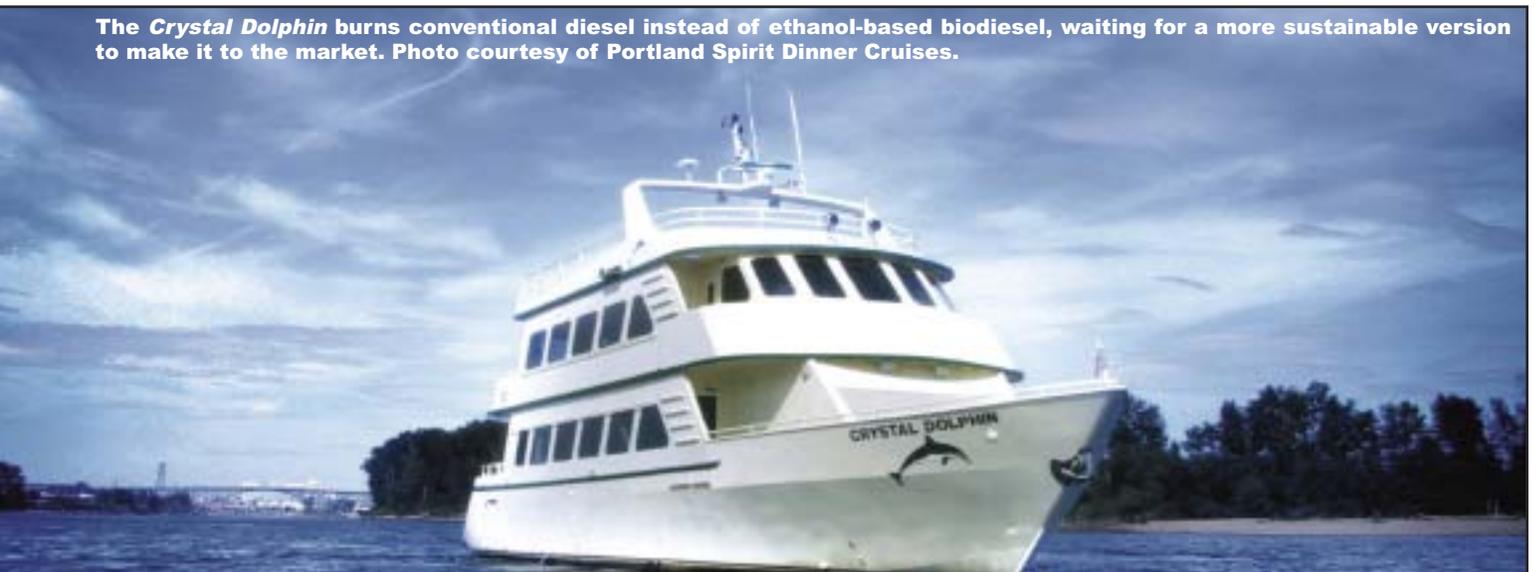
We have always recycled cardboard, glass, and engine oil, but were missing a huge opportunity with waste food products. About fifty percent of a conventional restaurant waste stream is food product. On a daily basis, we were filling our garbage containers with food scraps.

We were wary of composting onsite due to rodent control and odor issues. Initially, we explored using some locally created composting technology that our state government was promoting. Their proposal was a custom-made box with a series of trays housing about 200,000 hungry exotic earthworms. It appeared promising, but our investigation revealed that we would need approximately 10 boxes, and that the worms would need to be replaced when the temperature drops below 40 degrees. The area required to handle our volume of waste was too great for us to dedicate, and the expense of replacing worms was excessive.

Our solution was to get a dedicated four-yard dumpster dedicated to food waste. We initially thought we would purchase special compost plastic bags to transfer the waste from the boats to the compost dumpster. Unfortunately, the bags in question are quite expensive. Part of any sustainability program is to look for a simple solution, and we selected five-gallon buckets over the bags. Food scraps are loaded directly into the buckets and then hauled by electric cart to the compost dumpster. The buckets are then washed out and returned to service for the next cruise. We did have several days of over-85-degree temperatures, and we avoided the odor issue by placing the dumpster downwind.

Changing our buying habits for chemicals, cleaning products, and solvents was a bit more difficult. We researched and found many products that work efficiently and are cost-effective. The challenge was to continue purchasing the acceptable products while identifying more acceptable options. We now purchase

**The *Crystal Dolphin* burns conventional diesel instead of ethanol-based biodiesel, waiting for a more sustainable version to make it to the market. Photo courtesy of Portland Spirit Dinner Cruises.**



cleaning products by the 42-gallon barrel and refill cleaning containers, instead of disposing hand-held containers after their first use.

### **Carbon Offsets**

We began offering “carbon offsets” for our customers. The way carbon offset works is pretty simple in principle, but more difficult to put into action: A person decides he wants to spend money (self-taxing) on programs that will compensate for the carbon impact he is creating with his onboard event. Carbon offsets are not difficult to calculate for your engines, but it is a process that can be overwhelming if you are too detail-oriented. If you want to calculate the carbon impact for all the food, linen, labor, transportation to and from the vessel, your share of the construction of the vessel, and water for an event you can get overwhelmed.

We wanted to provide our clients an average carbon impact for their ride on our boat. Our dilemma was to determine the carbon impact, on average, when we offer 10 different cruises that run from two hours to 10 hours in length, with some offering food and others sightseeing only. We also had to make the system easy to use and ensure that the money was specifically directed to carbon offsets.

The cost we eventually arrived at was \$ .25 per operating hour and \$ .50 per person in the group. For public cruises it was a flat \$1 per person. Once you figure out your carbon footprint and its associated cost, then you need to know where to direct the money. We did a great deal of research to find an organization that collected the money and actually directed it toward carbon reducing activities. We went to our local congressman for advice and were directed to an organization that had a solid track record of investing in wind power with carbon offsets. The only problem? The organization was in Europe and I wanted the money to stay in the United States. After more research, we found an organization in Oregon, and we now direct our clients to forward their carbon offset purchases to [ClimateTrust.org](http://ClimateTrust.org).

### **Sustainable Menu**

In a similar vein to carbon offsets we have created organic, sustainable menus. A sustainable menu means that the food was grown locally and created the least carbon impact on the earth due to reduced transportation costs. Organic means it was grown without chemical fertilizer, pesticides, or growth hormones, and was not genetically modified. Organic for fish means it was not farm-raised and was caught in the wild.

There are some considerations with these types of menus. The cost of organic and wild food is much higher, and can often be of lesser quality. By quality, I mean more fruit is bruised and vegetables are spotted. Americans have come to expect their food to be perfect in appearance and are willing to sacrifice flavor for visual perfection. The lack of pesticides affect production, and the products sent to markets don't look as good. Additionally, smaller yields per acre, coupled with a higher spoilage rate and shorter shelf life, adds up to a higher product cost.

Another issue with a sustainable food supply is that it is much more seasonal. Americans are accustomed to their food wants being satisfied year-round, which requires us to source food from around the world. The additional cost for producing this type of product can be absorbed by individual families, but when an organization needs to feed 300 people and the organic menu is \$10 more per person, the incremental cost becomes significant enough to move people to conventionally grown food. To date, we have never had a group purchase an organic and/or sustainable menu.

### **On the Boats**

The ideas above can be executed in almost any restaurant or office environment. We also evaluated what we could do from the marine side of our business. Over the last three years we began replacing all our diesel engines with the latest technology. We started this program when one vessel needed new engines. The newest engines come with electronic control systems that provide the necessary information to allow a captain the option to reduce RPMs and determine the reduction of fuel usage. The fuel savings between a 20-year-old engine and new technology motivated us to speed up our engine modernization programs. We have completely replaced the propulsion systems in four of our five boats. The last boat to modernize is about 10 years from justifying new engines. On our jet boat, the new diesel saved us so much fuel we were able to eliminate the fueling stop at the midway point on its 10-hour cruise. This saves us a \$45 service charge daily and about \$1 per gallon since we no longer have to fuel in a remote location.

Several years ago we started to experiment with lube oil purifiers. At first, we were careful to send the lube oil for testing at every 150-200 hour mark, as required by the manufacturer. In the past we would change out gallons of lube oil every 150-200 hours. But after a couple of years of testing we have found that the purifiers work great, and instead we are getting about 1,000



hours between change-outs. This has saved thousands of dollars in lube oil and labor. We now have lube oil purifiers installed on every diesel in our fleet.

We have always recycled our lube oil and recently we started to recycle our lube oil filters, as well. A new service now offered is recycling fuel oil filters. The cost of recycling all our filters is about \$200 per year. This is a small price to pay to keep them out of landfills.

We have been frustrated with fogging windows in our flagship the M/V *Portland Spirit*, a 600-passenger dinner vessel. The windows were 1988 single-pane windows with lightweight aluminum frames. We have been concerned that vessel movement would break double-paned window seals. After a few unsuccessful experiments with local glass vendors, we were directed to a company that specialized in skyscraper windows. After a six-month experiment, we were pleased with the new window technology and have installed more than 80 windows at \$1,000 each. The fogging issue is gone, and the added bonus is that we also get substantial energy savings on both air conditioning and heating. The windows are so efficient that we have instituted a replacement program on the other three dinner boats.

When we had all the requirements in place for certification for the RecycleWorks program, we had to be audited by the city's Department of Sustainable Development. It was a painless yet professional review of our processes for maintaining our current program standards. In August of 2007 we were issued our membership into RecycleWorks.

### THE "BAD" OF SUSTAINABILITY

This is not a discussion of the validity of global warming or global climate change. I believe one can work toward many sustainability goals without taking a position on global issues. There are elements of conventional sustainability that we have not adopted and our opposition should be explained.

In my opinion, using corn-based ethanol is a mistake that should not be supported. There are three main concerns with corn-based ethanol. First, we cannot plant enough corn to replace our dependence on oil. One acre of land planted with corn may produce about 20 gallons of fuel per year. The U.S. uses over 400 million gallons of oil daily.<sup>1</sup> The math is simple: We cannot plant our way out of this problem.

Secondly, land planted with corn sheds tons of nitrogen into surrounding waterways. The nitrogen kills off

sea life. The nitrogen plume around the mouth of Mississippi was slowly growing, and now that we have ramped up corn production, the plume of dead seawater is growing by miles each year.<sup>2</sup>

The last issue is that food prices have exploded worldwide with the increase in energy cost, and diverting any part of the agricultural farming away from food has contributed to increased costs in food.

Solar power was made very popular in Oregon due to the creation of a large tax credit by our local government and the generous federal credit. Combining all the tax credits, about 90 percent of the total cost of the project would be available for tax credit. We just researched installing solar power for our office building. A \$500,000 investment would reduce our electric bill by about 30 percent. Since our electric bill is about \$1,000 per month, at \$300 per month savings, we would have a more than 30-year payback when maintenance and repairs costs are figured in. At present, we have opted out of pursuing solar power until the cost becomes more competitive.

### THE "GREEN" OF SUSTAINABILITY

All our hard work turning the company green was recognized in April of 2008, when the *Portland Spirit* was awarded the first-ever Governor of Oregon Tourism Sustainability Award. Oregon prides itself in being a state on the cutting edge of developing sustainable practices and this mantra has infected all local government activities.

Our move into a leadership position on sustainability was not planned, but it did not just happen by accident, either. In May 2008, we won a large charter from a Fortune 500 company that chose us over our competitors because of our aggressive green program. Two years ago, the *Portland Spirit* organization did not worry about sustainability and didn't understand how it figured into our company's mission. Two years ago, we didn't even know what sustainability was supposed to be or mean. Despite our relative newness to the game, it is our hope to continue to be a leader in the green movement within our industry.

#### **About the author:**

*Dan Yates has been the president of Portland Spirit Dinner Cruises and its five vessels since its start-up in 1994. Under his leadership the business won the first Governor of Oregon Sustainability Award in 2008. Mr. Yates has an MBA from the University of Virginia and was a U.S. Navy officer for nine years.*

#### **Endnotes:**

<sup>1</sup> [http://journeytoforever.org/biodiesel\\_yield](http://journeytoforever.org/biodiesel_yield)

<sup>2</sup> <http://www.ens.newswire.com/ens/jul-2008/2008-07-15.asp>