



## WHITEWATER SPECIALTIES LIMITED

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*Elizabeth M. A. Grasby revised this case (originally written by Andrew Fletcher under the supervision of Professor John Haywood-Farm) solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors might have disguised certain names and other identifying information to protect confidentiality.*

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In August, Peter Winford, general manager of WhiteWater Specialties Limited (WhiteWater Specialties), of Kelowna, British Columbia, was trying to decide whether to continue to pursue a potentially large order of fiberglass fascia signs from Consolidated Industries (Consolidated), a major Canadian retailer. Although the order would certainly allow WhiteWater Specialties to fulfill its mandate to diversify its product line, it might also result in almost quintupled sales. Winford wondered if such growth was appropriate for the company and its parent, WhiteWater West Industries Ltd (WhiteWater West).

### BACKGROUND

WhiteWater West had been incorporated for over 10 years. Geoffrey Chutter, the company's president, spent his childhood in British Columbia and subsequently lived in France and Ontario as his father, an executive in a multinational firm, changed locations. After graduating from university, he obtained his Chartered Accountant designation while working in Toronto, Ontario. When Chutter was 28 years old, his entrepreneurial spirit and his desire to return to British Columbia led him to move to his accountancy firm's Vancouver office, where he began looking for business opportunities.

Chutter initially purchased a trailer park and campground in Penticton, a resort and agricultural city of 33,000 at the south end of Okanagan Lake in British Columbia's Okanagan Valley, and left the firm. He decided to develop a small parcel of unused trailer park land located on a major street that ran beside the trailer park's property. He designed and constructed a water park consisting of pools, water slides, whirlpools, a sun tanning area, and service buildings on this land. WhiteWater West had begun.

After the first summer season, Chutter decided that he preferred designing, engineering, and building new parks, rather than selling tickets and hot dogs. Therefore, he decided to sell his property and concentrate on designing, manufacturing, and installing water slides. Since then, WhiteWater West had become vertically integrated and offered a wide range of products. The main services the company offered its customers included master planning, conceptual design, detailed engineering, detailed design, product manufacture, and construction. These activities involved taking into consideration the topography of the customer's land, designing a suitable variety of water slides, manufacturing the water slides, wave equipment and interactive water play systems, and installing these products. With sales of CA\$21 million,<sup>1</sup> WhiteWater West was the world leader in developing water parks.

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<sup>1</sup> All currency amounts are in CAD unless otherwise specified.

WhiteWater West purchased WhiteWater Specialties and its fibreglass plant with vertical integration in mind. Originally the plant had supplied recreational vehicle manufacturers with parts and tractor trailer manufacturers with truck hoods. Over the past three years revenues had been \$7.7 million, \$6.7 million and \$6.1 million, respectively, but Winford expected that this year would see a turnaround in sales to \$7.7 million dominated, as usual, by sales of water slides to WhiteWater West (see Exhibit 1).

## THE KELOWNA PLANT

WhiteWater Specialties' sole manufacturing facility was on the outskirts of Kelowna, a metropolitan area with a population of 180,000. The plant comprised about 4,275 square metres, within which the company employed 90 workers and used three different production processes: open fibreglass moulding, plastic rotomoulding, and polyurethane moulding. Fibreglass was a plastic that was reinforced by fine glass fibres. Conceptually, the product was similar to concrete that was strengthened by reinforcement with steel bars (also known as rebar). Fibreglass was formed by mixing the glass fibres into a plastic monomer, which was often a liquid, that was then formed into the desired shape and allowed to polymerize (set) to form into a solid.

Winford described the 24-hour open fibreglass moulding process:

The night shift sprays a gel coating on the mould. A few hours later, the day shift applies the fibreglass with a spray gun. The fibreglass spray consists of liquid polyester resin and glass. The glass starts as a long thread which then gets chopped into five-centimetre filaments by a chopper gun. The resin and glass combine as a spray and hit the mould simultaneously. After the fibreglass is applied, it cures for a few hours, during which it sets and dries. The afternoon shift applies a second fibreglass coat which also has to cure. Finally, the night shift pulls the parts from the moulds, trimming and repairing the parts as needed. They then start the process all over again.

Should WhiteWater Specialties produce the Consolidated fascia, it would use the open fibreglass moulding process. In total, the facility had about 200 moulds, 40 of which were the most common for manufacturing various water slide sections.

The polyurethane process was very similar to that used for open fibreglass moulding. In rotomoulding, plastic resin was placed in a closed mould which was then heated and rotated to form the product. Winford believed that rotomoulding was an attractive area of growth for the company in the Kelowna area.

After they were completed, water slide parts were stored in crates to protect them from scratches during transportation. Once the parts for an entire order had been completed, the crates were shipped out by truck. Overseas orders were shipped through Vancouver by sea to their destination; North American orders were transported by truck directly to the site. Custom orders, including recurring orders—for example, computer assisted tomography (CAT) scanner shells—were handled similarly.

Because water slide components were produced in a wide variety of shapes and colours, it was not practical to store them in a finished goods inventory. Project teams for water park contracts worked closely with WhiteWater Specialties to ensure the timely delivery of the components at the construction site. Because most park owners wanted installation to be complete for the summer season, construction was usually

finished in the spring. Although the usual lead time for slide construction at a water park was six to eight weeks, very large parks might need up to a three to four months lead time.

Winford commented on the plant's capacity:

It is hard to say what our capacity really is because the parts vary so much in size. Our dollar capacity can be reduced if, in one particular week, we are making very large, labour-intensive parts. Right now we work five days per week, around the clock. We are comfortable producing 60 parts per day, which is enough to fill two or three containers and generate \$30,000 to \$50,000 in sales. Sometimes we get up to \$950,000 a month, but that starts to stretch our capabilities. And, in a few extraordinary months, we have even produced sales of \$1.1 million to \$1.3 million.

### **PREVIOUS EXPERIENCE WITH DIVERSIFICATION**

Chutter wanted Winford to diversify from water slides to take advantage of the high production capacity available in the summer and autumn months. Water slide production peaked from November to May in preparation for water park construction each spring. Although the company had tried many new products in the last few years, few had been successful. The list included environmentally-friendly toilets, stretcher boards, satellite dishes, floating docks, CAT scanner shells, and soft bathtubs. Winford commented on some of them:

We are very flexible in being able to handle all sorts of designs of large fibreglass pieces. For instance, a new slide idea which was brought to our attention required us to combine our tube slide with our free fall slide. The tube slide is a covered water slide, while the free fall slide is a long and steep ride. Since we build our own moulds and use an open mould process, we can respond to changes in the customer's design. We can respond with quality and consistency.

In the past, we obtained the rights to a soft bathtub and an environmentally friendly toilet—two fibreglass products for which we are the sole manufacturer and marketer in Canada. The soft bathtub is a wonderful product. Once you try a bath in a cushioned tub, you will never return to a conventional one. We make them using our polyurethane process. Even though they are price-competitive with high quality tubs and jacuzzis, sales have not reached our expected level. We need a major advertising campaign to move [the product], but we just don't have the resources to inject into such a campaign.

The environmentally-friendly toilet posed a different problem. It is only 10 per-cent fibreglass production with the rest made up of electronics, packaging, seats, stickers, and labels. Unfortunately, because the design was poor, the toilet didn't work as planned so we had little success in producing a high quality product.

We have struggled with the other processes associated with a product, as was the case with the environmentally-friendly toilet. Unlike the toilet, however, we have been able to include the other non-fibreglass steps within our existing production process when producing truck hoods. The hoods have been quite successful for us, as have the CAT scanner inserts we make on contract for the Japanese market.

We also got into producing large satellite dishes. In this case, the market collapsed with competition from cable and smaller dishes. We just couldn't become cost effective with the large dishes.

## THE CONSOLIDATED OPPORTUNITY

Winford described the Consolidated opportunity:

Last April an anonymous company asked us to bid on an order of large rounded pieces of fibreglass for a feasibility study. The request specified the dimensions and colour. To us it looked a lot like a small version of a water slide. Although the customer requested production using closed moulding, we recommended our open moulded process, as we could adjust the specifications of the order at a lower cost. Closed moulding would produce less expensive units, but until the customer was happy with the finished product, we recommended the flexible open mould. It wasn't until after a small British Columbia firm won the bid that we found out the customer was Consolidated. I predicted there would be problems, as the expertise of the firm that won the bid is research and development, not production. I knew this R & D firm was small and was not considered a high volume producer.

I have been in touch with Consolidated and I know we can handle their needs. If possible, they would prefer to work with a single supplier. They want a flexible company that will work with them to modify the design as their business plans change or new information becomes available. They are planning an entire renovation of their retail outlets. The fibreglass piece they want is a small, highly visible component of fascia that will surround the top of each retail outlet. It is similar to a water slide except the outside [convex] surface will be facing outwards.

This fascia will have some process steps that are different from those followed in manufacturing water slides, but we can incorporate them into our existing process with little loss in efficiency. I now realize that they don't want just a low cost fascia. They want to work with someone, and get the signs on the retail outlets with a minimum of hassle over a two-year period. They want a company that will change with their plans, if necessary, and construct the new retail outlets with few or no problems. Consolidated's goal is to change their image with new, bright retail outlets. As a result, they will want to roll out the plan quickly. These are attractive products for us. Each retail outlet will use about \$40,000 [worth] of fascia, the production of which would cost us about \$14,000 in materials, \$8,000 in direct labour, and \$10,800 in direct overhead.

The costs of our other products vary: of our polyurethane sales, about 50 per cent is taken up just in materials, another 20 per cent is labour, and a further 20 per cent is overhead. Our transfer price for water slides is set to allow us the same margin as other fibreglass products. Most of the pieces for Consolidated will be exactly the same shape and size, so the moulds can be used over and over. That should cut our fixed costs a little. There will be a few problems with corners and exact lengths, though. Although the fascia is very visible, after it is installed no one can get close enough to touch it or examine it. Each water slide is different enough so that moulds have limited use. And, water slides have to fit perfectly on the inside [concave] surfaces because any edge sticking up just a little bit where the sections join would cut the users to shreds.

The challenge for us will be to keep up with demand. With our current excess capacity in the off-season for water slides [in June to October], we could produce enough pieces each week for three retail outlets. If they rolled out the plan quickly, I would have to make some major changes. However, Consolidated isn't sure they will invest in the changes as quickly as they originally planned. Recently, they have been downsizing considerably. They are going to reduce the number of retail outlets they refurbish from the 3,200 they estimated a year ago, to 2,000. They are considering targeting specific test cities to see if the new retail outlets increase sales. The way I see it, Consolidated has three options they might pursue. They could only project the new image at new retail outlets. This would result in an order for \$1 million [worth] of fascia. They could target specific cities and just change their image in those isolated areas. This would result in an order for \$3 million [worth] of fascia. Or, they could do a complete rollout at a cost of some \$80 million for fascia spread out over four or five years.

I am not convinced that this order is ideal for us, however. We are looking for products that have a completely opposite seasonal sales cycle. This order will require steady production year round.

## **CONCLUSION**

Winford wondered if the Consolidated Industries order was appropriate and what effect it would have on WhiteWater Specialties and its parent company. He knew that Chutter would not want to walk away from a potentially huge contract. Consolidated Industries would expect facilities to be available to produce and deliver the fascia in a timely manner. WhiteWater Specialties had a number of options available to it to handle increased production. Because of the commonality of the fascia, it was possible to produce to a finished goods inventory. Alternatively, it could rent a new production facility; 930 square-metres of suitable space could be rented for \$65,000 to \$80,000 per year. Paint and spray booths for such a facility would require an investment of \$160,000 to \$240,000.

Winford wondered if WhiteWater Specialties should be diversifying in this manner and how he should plan for the potentially large order.

## EXHIBIT 1: SALES AND FORECASTS FOR THE CURRENT FISCAL YEAR (IN THOUSANDS OF CA\$)

	Actual						Forecasted*						Total**
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Fibreglass													
Water slides	\$560.0	\$621.9	\$946.9	\$784.5	\$720.2	\$293.6	\$425.9	\$80	\$80	\$160	\$560	\$640	\$5,873
Medical equipment			34.4			34.4		32	32	32	0	32	197
Other	<u>9.6</u>	<u>10.1</u>	<u>26.2</u>	<u>28.6</u>	<u>25.0</u>	<u>17.4</u>	<u>11.8</u>	<u>120</u>	<u>160</u>	<u>128</u>	<u>56</u>	<u>56</u>	<u>650</u>
Total	569.6	632.0	1,007.5	813.1	745.2	345.4	437.7	232	272	320	616	728	6,720
Polyurethane	24.0	60.0	33.4	17.8	50.7	46.6	67.4	40	40	48	32	24	484
Rotomoulded	<u>40.0</u>	<u>42.4</u>	<u>44.2</u>	<u>48.0</u>	<u>48.3</u>	<u>73.9</u>	<u>48.0</u>	<u>32</u>	<u>48</u>	<u>48</u>	<u>38</u>	<u>24</u>	<u>535</u>
Total	\$633.6	\$734.4	\$1,085.1	\$878.9	\$844.2	\$465.9	\$553.1	\$304	\$360	\$416	\$686	\$776	\$7,739

NOTE: \* The forecast was made in June this year.

\*\* In the totals, the actual figures for January to June are rounded to reflect the additional uncertainty of the forecasted figures for July to December.

Source: Company files.