Memo to: United States Government Department of the Big Long River

To the Managers of the Big Long River,

Rapid Scheduling Incorporated was thrilled to receive your request for our optimization software. As a rapid scheduling company we are very familiar with your type of request. We have taken the liberty of preparing a scheduling program which will schedule all the visitors to your river with ease. Fear not, it comes with an easy-to-use interface, sampled at the bottom right of this letter.

The scheduler is prepared to handle any type of request. This includes each visitor's preferred boat type, departure date, and how long they'd like to spend on the river each day. Naturally, visitors will have their own campsite for each night they spend on the river. The program will even calculate how satisfied your visitors will be at the end of their trip. A visitor's estimated satisfaction will fall if they pass or are passed by another group during their trip, if they spend more or less time on the water than they desire, or if they cannot be scheduled.

There are some constraints that you should be aware of before implementing our software. We assume that campsites are evenly spaced along the river. We also assume that visitors are willing to follow the schedule we assign them. The software implements a tolerance for the distance each visitor will travel every day. While exercising this tolerance does likely decrease the satisfaction of a visitor, it also allows many more visitors to travel the river each season.

For instance, a 180 day season allowing visitors no tolerance (they always travel the distance they want) might only allow 173 visitors per season, if they leave consecutively and all travel the same speed. By increasing the tolerance to just two campsites per night, however, it is quite possible to allow up to 300 visitors each season, for entirely random speeds and departure dates.

The software is capable of scheduling more than 600 visitors per season. Their speeds, departure dates, and the amount of time they desire on the river, however, may need to be very specific. With 600 visitors per season, only about 5% of completely random combinations will work.

Your river is big and long, and it deserves to be appreciated by as many visitors as possible. Our software can help you do just that.

Keep paddling,

