Environmental Management in Motor Sports: A Case Study of the United States Formula One Grand Prix

Sylvia Trendafilova, University of Tennessee
Michael Pfahl, Ohio University
Emily Sparvero, University of Texas at Austin

Management/leadership **Friday, May 31, 2013** **20-minute oral presentation (including questions)**

Abstract 2013-158 **2:30 PM** **(Room 408)**

In recognition of the impact sport has on the environment, the issues of environmental management and sustainability are attracting increased attention from the academic community. The work of Lenskyj (1998) was one of the first to examine the complex relationship between sport and the environment. Smith and Westerbeek (2004) acknowledge that sport has become more environmentally conscious, but there are still concerns as to the negative environmental impacts of sport activities such as habitat destruction in the construction of sport facilities and the use of fuels in motorsports. Others have studied the role of stakeholders in sustainability efforts, concluding that through the engagement of stakeholders, organizations can better understand and elucidate the different dimensions of the environmental challenges they face (Kearins & Pavlovich, 2002). Sport facilities represent a relatively new focus in environmental management. The results of a study on 16 major North American sport facilities concluded that sport facility managers are compelled to address environmental sustainability (Mallen, Adams, Stevens & Thompson, 2010). Many facilities have implemented formal and informal environmental systems in place to address this new focus, with most environmental performance advances revolving around saving electricity and recycling. However, other aspects of facility construction and operations could impact the natural environment through light and nose pollution, waste generation and soil erosion during construction in particular. The building and operations of the facility along with the necessary infrastructure can lead to negative impact on the environment and therefore should be carefully considered through all stages of development.

Motorsport is an industry that is globally well recognized. In 2005 alone, there were over 600 race circuits and 56 global events, with more than 52 million television viewers alone watching each Formula One Grand Prix. Motorsport is facing increasing pressure to reduce resource consumption and concerns have been raised as to whether motorsport is managed in an environmentally sustainable manner (Dingie, 2009; Fairley, Tyler, Kellett & D'Elia, 2011). The 2012 Formula One United States Grand Prix (F1) (Austin, Texas; November 18, 2012) is one of the legs of the F1 World Championship circuit managed by Formula One Management (FOM). The Circuit of the Americas (COTA) will host the event and is a multipurpose facility that includes a 3.4 mile Grand Prix race track. The facility is a $300 million project and is the first custom-built circuit in the United States to host a Formula One race (Koesters, 2011). In addition to the race track, the facility has an amphitheater with over 20,000 seats as part of the plans to host music festivals. The study presented here will address a unique aspect of sustainability in motorsport - the design, construction and operation of the Formula One race track built in Austin, Texas for the inaugural Formula One race in the United States. Specifically, this research project entails four areas of interest: 1) environmental issues addressed during the race track design and development process, construction and operations, 2) challenges associated with the design, construction and management of the race track in relation to the environment, 3) specific initiatives in place and key environmental partners and/or vendors engaged in these initiatives, and 4) strategies in place to ensure long-term sustainability benefits of the built environment and the local community.

Individual in-depth interviews were conducted as the appropriate method of collecting the necessary information in order to address the areas of interest in this study. Participants varied in their background and level of involvement in the design, construction and operations of the race track (e.g., sustainability director, donors, teams' bosses, local environmental groups, city of Austin employees), but all were affiliated with the Circuit of the Americas and Formula One. The results of these interviews are in the process of being transcribed and analyzed and will be reported in the presentation. The main areas of analysis center on the strategic planning process of the COTA circuit, specifically the environmental planning and management processes inherent within it (e.g., goals, objectives, and tactics). Additionally, the findings address the challenges faced in these processes by track and other affiliated personnel (e.g., FIA). Finally, and perhaps most critically, results provide an investigation into the post-race planning that will

focus on understanding the metrics of success/compliance, evaluating the extent of stakeholder participation (e.g., vendors), and the preparation and dissemination of impact reports.

The findings of this study will expand the knowledge in the motor sport industry by exploring the issues associated with the environmental management of Formula One, and by providing feedback to future organizers of such an event (and other similar) to ensure that the environment is addressed in all phases (design, construction and management). Many of the aspects of environmental stewardship depend on and require continued long term planning, implementation and evaluation. In other words, environmental aspects must be considered regularly with a systematic environmental management plan in place. Environmental criteria should be taken into account during the planning, building and maintenance of the sport facility, which in return could not only improve the area ecologically, but also increase the attractiveness of the surrounding residential environment. Most importantly, adaptive management and stakeholder participation should be carried out from the design to construction to the operation stages. Environmentally sustainable design could in the long-term lead to substantial financial savings and minimizing the negative impact on the environment.