

## Utilizing Mist Irrigation Heads For Precision Irrigation

**Pikewood National Golf Club**  
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### Issue

Pikewood National Golf Club is a relatively new private club, located in the mountains of West Virginia. The course has continued to evolve since it opened, through ongoing improvements to the playing experience and management program. One significant change has been converting out-of-play areas to fine fescue in an effort to reduce labor and water use. This turf conversion project has been focused around the teeing complexes, where little or no play is expected. One of the challenges that arose is watering the bluegrass walkways that pass through the fescue areas. The maintenance department was hand watering the walkways to ensure precise irrigation, but this system proved to be very labor intensive and expensive.

### Action

To solve this problem, Superintendent Brett Bentley proposed installing dedicated mist heads for the bluegrass walkways. The mist heads would eliminate the need for hand watering by automatically irrigating the walkways without allowing excess water to enter the adjacent



*Mist heads make it possible to irrigate turf walkways precisely and automatically, without watering the surrounding native grass.*

fescue areas. An irrigation consultant helped design the system and an irrigation installer brought the plans to fruition.

The primary challenge encountered during the installation process was pulling the irrigation pipes through the rocky soils. The installation company needed to use heavier-than-anticipated excavation equipment in order to pull the irrigation lines into the selected areas.

### **Results**

The new mist irrigation system has made a positive impact on the turf conversion program at Pikewood National. It has allowed the maintenance department to precisely and automatically irrigate the pathways between tees without excess irrigation escaping into the fine fescue areas. This has helped the club reduce irrigated acreage while maintaining a high-quality golfer experience. Looking back on the process now, Bentley would have included drain inlets at the low end of each spray zone. Gravity pulls water to the low end of each mist line when the heads are not in use, potentially creating wet areas.

Pikewood National began converting out-of-play areas to drought-tolerant turf in an effort to reduce the club's environmental footprint and conserve valuable resources. Precise irrigation is an important part of any turf conversion program and the pathway mist system at Pikewood National is an excellent example. Irrigation can now be targeted to the walkways without labor intensive hand watering. Those resources can be reallocated to other areas of the golf course. With the ongoing success of the project, everyone at Pikewood National feels they have elevated the environmental sustainability of the facility.