## **STORM WATER**

## EXHIBIT X. C.4

Since the Sterling Forest Resort is located in the Palisades region, it will employ significant measures to protect and enhance the quality of the storm water discharged from the property. The Sterling Forest Resort project will manage storm water so that downstream channels are protected from erosion and the quality of the storm water released from the proposed facilities will be significantly cleaner than what is released today. The proposed site will implement Institute of Sustainable Infrastructure (ISI) techniques where technically feasible. These techniques include rain barrels and/or cisterns, bio-retention areas, and/or porous pavements in surface parking lots.

## Sterling Forest Gardens

This portion of the Sterling Forest Resort proposes sensitive development around existing ponds and natural features. The storm water quantity in this area is not expected to increase significantly. The development features small structures and large gardens and natural areas. Here the storm water will be treated as small sub sheds instead of large areas. These will be designed to fit into the landscape and the proposed development, transforming important environmental safe-guards into property amenities. As the proposed development will be similar to existing conditions it will be designed to New York State guidelines for redevelopment projects. Some areas will be treated as "new development" as the proposed footprint extends beyond the existing renaissance fair area.

## Resorts World Grand Hotel

Storm water within the Resorts World Grand Hotel drainage area will be controlled by a combination of systems that will protect the downstream receiving channels and remove pollutants before being discharged. Ninety five percent of all collected site storm water will pass through some treatment facility, which will include restored wetlands, new wetlands, sand filters, and others. Rooftop areas run-off will be captured in cisterns. If any run-off is discharged it will be cleaned prior to release in the proposed riparian buffer adjacent to the improved stream along the eastern portion of the site. The storm water release rate will be controlled to avoid erosion of the improved stream bed as well as downstream receiving channels.

Surface paving areas will employ pervious pavement, this system will allow storm water to infiltrate through a controlled subsurface system that will trap pollutants. Passing through an engineered aggregate system below the surface, pollutants will be cleaned prior to being released into existing stream and wetland areas. The infiltration also allows the storm water to help in the recharge of the downstream aquifer.

Some areas of poor soils that have been identified in the geotechnical investigations will be excavated and replaced with engineered fill to allow for infiltration in either bio-retention areas or underground infiltration basins.