Few Watch listings have prompted so much outrage in a nation’s national press as WMF’s inclusion of the Roman aqueduct in Segovia, Spain, on its 2006 list of 100 Most Endangered Sites. The listing also revealed the problems that can arise when municipalities, regional governments, ministries of culture, and heritage organizations share jurisdiction over the management of a country’s patrimony but have disparate notions of what is best for a given site.

Begun in the second half of the first century a.d., the aqueduct at Segovia is a masterpiece of Roman engineering, which continued to provide the Spanish city—100 kilometers northwest of Madrid—with potable water well into the twentieth century. The aqueduct system stretches some 15 kilometers, from its origins at a freshwater source in the Sierra de Guadarrama southeast of the city to the Alcázar, a medieval castle built atop Roman remains on a precipice overlooking the junction of the Eresma and the Clamores valleys, which marks the northwest corner of town. Together with the walls of Tarragona, the aqueduct is one of the two largest surviving Roman structures in Spain.

For most of its route, the aqueduct traverses the landscape through a series of ducts and underground channels. Only for its final stretch, where the system must bridge a deep depression at the Plaza del Azoguejo just below the old part of town, however, does it reach a full height of nearly 30 meters. There, where many of the main roads into Segovia meet, 118 pillars continue to support a two-story arcade.

Thought to have been commissioned by the Flavian emperor Domitian (r. A.D. 81-96), the aqueduct was first repaired at the request of Trajan in A.D. 98, according to the remains of an inscription that graces one of the lower arches. Although the gilded bronze letters of the inscription have long since vanished, holes for the lead pegs that once held them...
have permitted the text to be read. Fourteen of the surviving pillars were completely rebuilt between the fourteenth and nineteenth centuries.

Despite its high profile and Segovia’s inscription on UNESCO’s World Heritage list in 1985, the aqueduct had, until recently, been threatened by lack of maintenance, differential decay of its individual stone blocks, water leakage from the upper viaduct, and in some areas pollution, which has caused the granite ashlar masonry to deteriorate and crack. In an attempt to address the conservation problems the Junta de Castilla y Leon, the regional government, launched a campaign to preserve the aqueduct in 1992, an effort underwritten in large part by Caja Madrid, one of Spain’s leading banks.

Although many of the aqueduct’s structural issues were addressed at that time—primarily in above ground areas—nothing was done to halt the erosion of the masonry blocks themselves, which have continued to deteriorate at an alarming rate due to pollution and exposure to the elements. More disturbing, however, it seemed that several interventions were carried out that actually exacerbated rather than remedied the aqueduct’s problems, including the use of inappropriate restoration materials and the installation of a lead channel that retains water, the latter leading to biological growth. In addition, few if any measures were taken to protect the subsurface portions of the water system; the location and conditions of some areas remain undocumented to this day. This lack of documentation and public awareness of the system, some say, was to blame for the accidental destruction of a subterranean portion of the aqueduct during construction of a new high-speed rail line between the city and the Sierra de Guadarrama in 2000–2001.
The precarious state of preservation of the aqueduct prompted the Municipality of Segovia to nominate the Roman wonder for inclusion on WMF’s 2006 list of 100 Most Endangered Sites, a move that angered the regional government, which had carried out the controversial 1990s restoration work and is ultimately responsible for the historic resources for the region.

Following WMF’s Watch listing and acting upon recommendations put forth by UNESCO, American Express stepped forward with a grant of $125,000 to underwrite the development of a comprehensive conservation plan for the site and its environs. The plan will be drafted by an international team—among them noted structural engineer Giorgio Croci, conservator Jose Delgado, and archaeologist Isabel Roda—that would be coordinated by Jose Maria Ballester and Pablo Longoria of WMF’s Spanish office working in concert with the municipality and Spain’s Ministry of Culture. Beyond endorsing the plan, the ministry agreed to up the funds needed to maintain the site from €18,000—which had been provided by the Caja de Segovia bank—to €120,000 annually, thereby helping the cash-strapped municipality to care for the aqueduct.

Slated for completion later this year, the conservation plan calls for the archaeological and geological documentation of the entire water system and the creation of a GIS-based database for the management of the site; the immediate removal of the lead channel installed during the 1990s restoration; and the limiting of vehicular access around the aqueduct. Conservation of the site, however, will take nearly a decade to complete. Once done, maintenance of this great engineering marvel will require that all of the agencies responsible for it continue to work together, politics aside. An agreement to this effect is currently on the table.