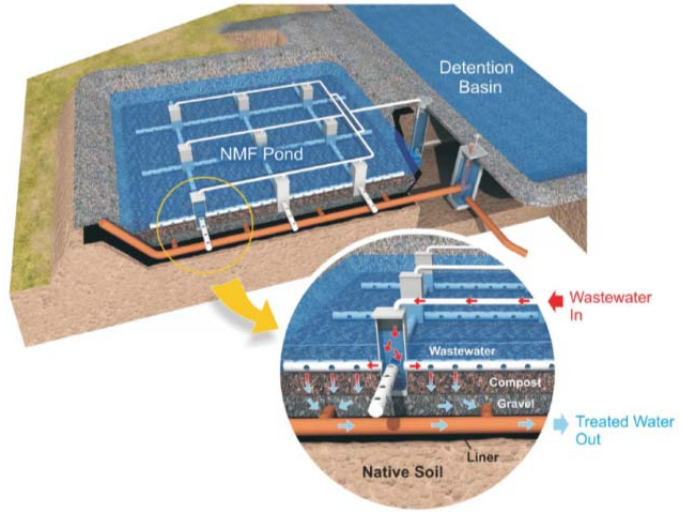


**Metal Fabrication Facility  
Natural Media Filtration for PCB Removal**

**Indiana**

As a result of historical use of hydraulic oils, low levels of PCBs are present in the process water and stormwater runoff being discharged from a 172-acre metal fabrication facility in Lafayette, Indiana. The client faced an immense challenge when the state’s environmental regulatory agency ordered the facility to comply with a revised PCB discharge limit of 100 parts per trillion (ppt). Roux Associates worked closely with the client to pilot test a new PCB treatment technology: Natural Media Filtration (NMF). Efficacy was demonstrated by an average PCB removal rate of 88 percent observed during the performance of bench scale and pilot scale studies. Consequently, a full scale NMF system was evaluated, designed, and constructed at the facility.



Three stormwater storage units with a total capacity of 2.6 million gallons, and four NMF cells with a total operational capacity of 900 gallons per minute, were installed at strategic locations across the facility to realize the design goal.



Since the full scale NMF system began operation in October 2007, final discharge PCB concentrations have consistently been below the analytical detection limit of 100 ppt. NMF technology has been instrumental in helping the client comply with its PCB discharge limit, and realize a savings of 86 percent in capital

cost and 90 percent in annual operating cost when compared to conventional treatment alternative. The client has praised NMF technology as innovative, cost-effective, low maintenance, superior to traditional treatment method, and in agreement with its corporate policy of promoting the use of sustainable, “green” technology.