

# Growing Pains in Pullman

## Improving Construction Stormwater Discharges



### Introduction

Hidden away in the rolling hills of the Palouse is the small farming community of Pullman, Washington, which is also home to Washington State University. Pullman is one of the faster-growing communities in the state and is experiencing some growing pains. Pullman is a small city that is dealing with growth that would be expected in a much larger city.

With increased growth come many new construction sites and their potential to discharge turbid stormwater into surface waters of the state. Washington State Department of Ecology (Ecology) has regulated stormwater discharges from construction sites with a Construction Stormwater General Permit since 1992. The permit is required for land development activities such as grading, clearing, and excavating that will disturb one or more acres and discharge stormwater into surface waters of the state. The intent of the construction stormwater general permit is to have construction sites implement stormwater best management practices (BMPs) to reduce or eliminate pollutants discharged into surface waters of the state. The proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control should help to attain this objective.

### Problem

Managing stormwater runoff from construction sites in Pullman and the surrounding areas can be very difficult because of:

- Highly erodible soils,
- Unpredictable weather
- The fact that most construction sites are near one of the many streams that run through or around Pullman.



On December 23, 2005, Dave Duncan and Jeremy Ryf traveled to Pullman in response to complaints that construction stormwater runoff was discharging into local streams and rivers after snow melt and heavy rains. While in Pullman, they conducted a construction stormwater compliance inspection at a housing subdivision. The construction activities at this development were not being conducted in phases. The site was cleared of all vegetation and graded before erosion and sediment control BMPs were installed. During the inspection, they observed that the development's detention ponds were filling with a large amount of sediment-laden stormwater, eroded material from their construction site, and sediment from a heavily tilled agricultural field above the project. Their detention ponds were nearly full of highly turbid stormwater which discharged into a small stream northwest of Pullman. Turbidity is a measurement of the cloudiness of the water. Highly turbid water can cause significant harm or kill aquatic life. The development had inadequate BMPs that failed to prevent erosion and keep sediments from entering their stormwater.

## Event

Whispering Hills subdivision is a 30-acre housing development being developed by Copper Basin Construction on the Pullman-Wawawai Road in Pullman. The stormwater runoff from this subdivision discharges into Hatley Creek, which is a small tributary to the South Fork Palouse River. At the first compliance inspection, Ecology staff met with an on-site representative and informed him that they needed to implement additional BMPs and repair existing ones. After the inspection, staff contacted the owner of Whispering Hills subdivision and informed him about the stormwater related problems on this site. They arranged a second inspection with him for the following week. During the second compliance inspection, Ecology Staff met with the owner and the engineer of the subdivision to discuss actions that need to be taken to reduce or eliminate the turbid discharge from the site. By the end of the inspection, the owner of Whispering Hills realized the severity of the problems on their site and was going to have their contractor install and repair the erosion and sediment control BMPs as soon as possible. Over the next year and half Ecology staff continued to conduct additional construction stormwater compliance inspections at Whispering Hills subdivision. The staff provided technical assistance and guidance to help the owner and developer comply with the Construction Stormwater General Permit and reduce the turbidity of the discharge from the site.



## Outcomes

By developing a good working relationship with Copper Basin Construction, Ecology continues to work closely with them to improve the quality of their stormwater discharges and to help them set a good example for other construction sites in Pullman to follow.

Ecology staff are currently working with Copper Basin Construction on the planning stages of Phase 2 of the Whispering Hills subdivision.

After experiencing the stormwater-related problems during Phase 1 of the development, they are planning to first construct and start to revegetate the detention ponds and install other stormwater BMPs before they start clearing and grading the home sites. They also are planning to phase the construction of the new subdivision so that only those areas actively under construction have exposed soils. Because of the vegetation's ability to minimize erosion, limiting and phasing its removal can significantly reduce soil erosion.

If Ecology can develop this kind of working relationship with other construction companies, we should see a dramatic improvement in the water quality of stormwater discharges from construction sites.

## Partners

**Steve White**, Owner  
Copper Basin Construction, Inc  
P.O. Box 949  
Hayden, ID 83835  
(208)765-5059

**Steve Soltys**, Engineer  
Copper Basin Construction, Inc  
P.O. Box 949  
Hayden, ID 83835  
(208)765-5059



### *Submitted by:*

**Jeremy Ryf**, Construction Stormwater Inspector  
Department of Ecology  
Eastern Regional Office  
[Jryf461@ecy.wa.gov](mailto:Jryf461@ecy.wa.gov)  
509-329-3610

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