Follow the Money

Money matters. It is often said that our priorities can be measured by looking at what we spend money on. Over the last few years we have talked a lot about changing our approach to erosion and sediment control on our construction projects. As we optimistically look forward to the potential termination of the Consent Decree, I felt this was an appropriate time to look backwards and see if we are putting our money where our mouth is.

To do this I decided to pull some data from CMS and then break it down. Rather than looking at bid tabs or estimated quantities I started with actual payments made on construction contracts in calendar years 2008-2016. Data was retrieved for a range of item codes determined to be relevant to erosion and sediment control and for total payments made on construction contracts.

The first measure is simply the total payments for all the erosion and sediment control (ESC) items as a percentage of the total construction payments. I then excluded item codes related to permanent erosion control (e.g. riprap and aggregate ditch lining) and permanent seeding to look at only temporary ESC items. The results are summarized in the following table. One of the things we can quickly learn from this is that a significant portion of our ESC money is spent on permanent controls.

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<tbody>
<tr>
<td>Total ESC</td>
<td>2.06%</td>
<td>2.29%</td>
<td>2.27%</td>
<td>2.25%</td>
<td>2.13%</td>
<td>2.46%</td>
<td>2.76%</td>
<td>1.99%</td>
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<tr>
<td>Temp ESC</td>
<td>0.69%</td>
<td>0.99%</td>
<td>0.83%</td>
<td>1.02%</td>
<td>0.79%</td>
<td>1.34%</td>
<td>1.38%</td>
<td>1.13%</td>
<td>1.42%</td>
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A lot of our projects such as overlays or bridge repairs involve little or no ESC payments so this data is a little watered down. Payments made on the Gateway project also dilute the data (especially in 2015) because the design-build contract didn’t itemize the ESC payments in the same manner. For the next table I tried to minimize this dilution by limiting the data to the four CMS “work types” that account for approximately 89% of ESC payments during the 2008-2016 time period. The next table shows the same calculations but for only the GRBRS, GRSU, GRBR and SEED work types.

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<tbody>
<tr>
<td>Total ESC</td>
<td>3.59%</td>
<td>3.87%</td>
<td>3.43%</td>
<td>4.02%</td>
<td>3.84%</td>
<td>4.97%</td>
<td>5.64%</td>
<td>4.87%</td>
<td>4.25%</td>
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<tr>
<td>Temp ESC</td>
<td>1.17%</td>
<td>1.65%</td>
<td>1.29%</td>
<td>1.86%</td>
<td>1.43%</td>
<td>2.70%</td>
<td>2.77%</td>
<td>2.68%</td>
<td>2.49%</td>
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</table>

In both analyses we see a significant bump in ESC payments starting in calendar year 2013. This is consistent with the implementation of new training and other procedures related to the EPA Consent Decree. Clearly the changes we made led to an overall increase in ESC spending, but I also wanted to see if we’ve changed on a more strategic level.

For the next chart, the temporary ESC items were divided into three categories: Temporary Erosion Control, Sediment Control, and Management. Looking closely at this chart, there are at least three things worth noticing here. First, as before, we see clearly that our overall spending jumped up dramatically in 2013. We can also see the appearance of the “management” items (SWPPP Design, SWPPP Inspection, and WPCM) and their impact on project cost. What I find most interesting, however, is the split between erosion control and sediment control.

WPCMs are required to have completed both the EIT and the EMT courses within the 12 months prior to beginning work on a project or being designated as WPCM for a project.

All completed inspection reports must be submitted to the responsible Area Engineer and the contractor’s WPCM within 24 hours of each inspection. The Area Engineer must sign within 3 calendar days and submit to KDOT.stormwaterinspection@ks.gov

Failure to complete and submit inspection reports on time will result in penalties.
On a percentage basis, our spending on temporary sediment controls such as wattles, silt fences and filter socks has actually decreased. The large increases are in our spending on erosion control and management. This is perfectly consistent with our emphasis on prompt finishing and stabilizing of disturbed areas on our projects.

By no means did this exercise attempt to capture KDOT’s full cost of compliance with the permit or with the consent decree. Among other items we would also have to consider the costs of KDOT inspections, training programs and related KDOT maintenance activities. I do believe this demonstrates a fundamental shift in erosion and sediment control strategy. The “old days” of over-reliance on barriers and other sediment controls have given way to an aggressive erosion control strategy based primarily on seeding, mulching and erosion control blankets.
KDHE General Permit
KDHE has finalized their 2017 Construction Stormwater General Permit. This revised permit includes a number of notable changes. These changes have no immediate effect on KDOT projects, as the previous permit requirements may remain in effect for up to 18 months. KDOT is reviewing the new permit and drafting new special provisions and procedures for implementation of the updated permit requirements. The complete permit and related information from KDHE may be found at [www.kdheks.gov/stormwater](http://www.kdheks.gov/stormwater).

EIT / EMT Classes
A schedule has been set for EIT and EMT classes through the KDOT CIT program. Classes are currently planned for October 9-10 and October 11-12, 2017 and March 19-20, March 21-22, April 30-May 1, May 2-3, June 4-5 and June 6-7, 2018. Registration is online and opened on August 28, 2017 for the October classes. Registration for all other classes will open September 11, 2017. Visit [http://citksu.com](http://citksu.com) for details.

The Kansas Contractors Association (KCA) also sponsors classes. One class is currently scheduled for November 7-8 but more may be added if demand is sufficient. Contact the KCA for details.

Everyone should review their recertification dates and enroll in the appropriate classes to ensure that certifications do not lapse. Classes may be canceled due to insufficient enrollment so please register early.

Consent Decree Update
KDOT is in the process of requesting termination of the 2013 Consent Decree. Please remember this process will take some time and all of the requirements remain in full effect until termination is final. We have been working on several modifications to our permit compliance program for implementation once the decree is terminated. As changes occur or as new information is available notifications will be sent out to keep you all informed. In the meantime, please keep up the good work and let Jason know immediately if there are any stormwater related problems on your projects.

Stormwater Update Online
This issue and all past issues of this quarterly bulletin are available online at KDOT’s Stormwater website: [http://www.ksdot.org/burconsmain/Connections/swppp.asp](http://www.ksdot.org/burconsmain/Connections/swppp.asp)

Contact Jason Van Nice ([jason.vannice@ks.gov](mailto:jason.vannice@ks.gov)) for questions, comments or suggestions for future content.