Good afternoon. I am Sonny Johns and I work for a homebuilder in DFW.

This class will provide information on what the responsibilities are for the primary operator/owner on residential construction sites to stay in compliance with the Texas Construction General Permit, TXR150000. We will present this information in a way that educates the attendee not only how to remain in compliance with the permit, but also pre-preparation for a regulatory agency inspection. The class following this one will continue the discussion on regulatory agency inspections.

We will discuss everything about operator’s compliance, not just the inspection of the construction site. You will hear me repeat some information but that is the information that is worth repeating. We will not take the full hour with this presentation and I hope you will continue this topic with the next presentation from the regulatory side of things.
The Texas Construction General Permit (CGP) has specific definitions for primary and secondary operator that we must take note of.

**Primary Operator** - the person or persons associated with construction activity that meets either of the following two criteria:
(a) the person or persons have on-site operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
(b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a Storm Water Pollution Prevention Plan (SWPPP) for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

**Secondary Operator** – The person or entity, often the property owner, whose operational control is limited to:
(a) the employment of other operators, such as a general contractor, to perform or supervise construction activities; or
(b) the ability to approve or disapprove changes to construction plans and specifications, but who does not have day-to-day on-site operational control over construction activities at the site. Secondary operators must either prepare their own SWPPP or participate in a shared SWPPP that covers the areas of the construction site, where they have control over the construction plans and specifications. If there is not a primary operator at the construction site, then the secondary operator is defined as the primary operator and must comply with the requirements for primary operators.
According to the TXR150000 permit, issued 5 March 2018, when permit coverage is required, the primary operator must prepare and implement a Stormwater Pollution Prevention Plan, then submit a Notice of Intent (NOI) to the TCEQ, then post a site notice, then submit a copy of the site notice to the MS4 Operator. One very important thing to note here is that all of these must be completed before any work, including early grading, even if granted an early grading permit by the municipality.

Permit coverage is required for any site one acre or more or less than one acre if it is part of a larger common plan of development or sale. A common plan of development is defined as a construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. Municipalities will likely require erosion and sediment control on sites smaller than one acre and they can be more restrictive than the state.
A SWPPP is a Stormwater Pollution Prevention Plan and a quick note as stated on the previous slide, the SWPPP MUST be prepared BEFORE submitting intended coverage, NOI, to the TCEQ. A SWPPP is your plan on what you will be doing in order to minimize and eliminate discharges from your site. It is a living document and should be updated during the project as conditions change.

The SWPPP must be retained onsite at the construction site or if the site is inactive or there is no safe place for the SWPPP, a notice must be posted as to the location of the actual SWPPP Book. The general place to keep the SWPPP is in the construction trailer as long as the inspectors have access to update the SWPPP and Site Map. If the SWPPP is retained off-site, then it shall be made available as soon as reasonably possible. In most instances, it is reasonable that the SWP3 shall be made available within 24 hours of the request.
If there is a significant effect on the discharge of pollutants, from a change in design, change in operations, or a change in maintenance, then the SWPPP must be updated to show these changes and what controls will be used for compliance. This is also the case when there is a change in operators, a change in areas of responsibility, or a change in best management practices, BMPs. BMPs are a short way of talking about any erosion or sediment control used on site.

If an inspection or investigation finds that BMPs are not effective in significantly minimizing pollutants in discharges, the SWPPP must also be changed to reflect the new controls used.

An inspection or investigation can be from a construction superintendent, a stormwater manager, operator of a municipal separate storm sewer system, we call those MS4s and are the city receiving the discharge in most cases, authorized TCEQ officials, or any federal (EPA), state, or local agency that approved the SWPPP and plans.
The site or project description must include the nature of the construction activity, a list of potential pollutants, a description of the soil disturbing schedule, the total number of acres and the total number of acres disturbed, soil data – sometimes called a Geo-Tech Report, a site map showing the general location of the site – usually a Google printout with markings, and a detailed site map.

The detailed site map must include drainage patterns and approximate slopes anticipated after major grading activities, areas where soil disturbance will occur, location of all controls and buffers – both in place and planned, locations where temporary or permanent stabilization practices are expected to be used, location of support activities including any offsite – i.e. concrete batch plant, surface waters in close proximity to the site and if those waters are impaired, location of stormwater discharges to water body or MS4 (municipal separate storm sewer system), where vehicles will be washed, and location of stabilized construction entrances.
Now we will talk about what is needed in the SWPPP to remain in compliance.

A copy of the permit is required to be in the SWPPP. For space saving in the SWPPP book, it is suggested that the permit is either printed on both sides of paper or 4 pages per page.

The actual NOI received from the Texas STEERS application, signed by the operator.

The location of pollutant-generating operations, i.e. concrete activities, masonry or stucco activities, solid waste storage and disposal, and dewatering operations.

A narrative description of all BMPs that will be used is also required. This description must include the general timing for implementation.

When writing the BMP description narrative, there are a few things to keep in mind that are also required. First, the erosion and sediment controls must be designed to retain sediment on-site to the extent feasible. Second, the control measures described above must be selected, installed, and maintained per the manufacturer’s specs. Finally, controls must be developed to minimize offsite transport of trash, debris, and materials.

A list of the names and addresses of all MS4 Operators receiving a copy.
The SWPPP must include a description or temporary and permanent erosion control and stabilization practices for the project site. The controls selected also must be in compliance with the permit. There must also be a schedule in the SWPPP of when the practices will be implemented. If possible, do not disturb native vegetation. There are also some dates that are required to be documented in the SWPPP. The dates when major grading activities occurs, the dates when construction activities temporarily or permanently cease on a portion of the construction site, and the dates when stabilization measures are initiated.

The SWPPP must also include a description of any sediment control practices used to remove eroded soils from stormwater runoff, also including the timing of the implementation. There are two regulations in the permit, one for sites that are ten or more acres and one for sites less than ten acres. For the 10+ acre sites, a sedimentation basin should be installed when feasible. This basin should be designed to hold the capacity the calculated runoff from a 2-year, 24-hour storm from each disturbed acre drained. These calculations are also required to be notated in the SWPPP. If the rainfall data is not available or if the calculation cannot be performed, the basin should provide at least 3,600 cubic feet of storage per acre drained. If a sedimentation basin is not feasible, the operator must provide equivalent control measures, which might be a series of smaller
sediment basins, and the reason that the one basin was not feasible, must be notated in the SWPPP. At a minimum, perimeter controls must be installed for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions. With sites less than ten acres, many of the same rules apply as above, with the exception being a sediment trap is acceptable if a sediment basin is not feasible. If a sediment basin is used, it must follow the same guidelines as above, 2-year, 24-hour, or 3600 cuft per acre drained.

Permanent stormwater controls must also be documented in the SWPPP. Operators are responsible for the installation and maintenance of stormwater control measures prior to final stabilization and before filing for an NOT (Notice of Termination) for the construction site. We will discuss NOTs a little later in the presentation.

If earth disturbance activities are located in close proximity to a surface water in the state, you must provide and maintain appropriate natural buffers if feasible and as necessary, around surface water in the state, depending on site-specific topography, sensitivity, and proximity to water bodies. Direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible. If providing buffers is infeasible, the permittee shall document the reason that natural buffers are infeasible and shall implement additional erosion and sediment controls to reduce sediment load
The SWPPP must include a description of the controls used to minimize off-site vehicle tracking of sediment and the control of the generation of dust. The SWPPP is also required to have a description of construction and waste materials, as well as a description of the controls used to minimize pollutants from the materials. The SWPPP also must have a description of potential pollutant sources in discharges of stormwater form all areas of the construction site. In order for the natural physical and biological characteristics and functions are maintained and protected, the operator must install velocity dissipation devices at discharge locations and along the length of any outfall channel. If pumping or channeling water from the construction site, the operator must design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants.

The operator must ensure that the SWPPP is consistent with requirements specified in applicable sediment and erosion site plans or permits approved by federal, state, or local officials. The SWPPP must also be updated to remain consistent with any changes applicable to the protection of surface water resources. A special requirement while working in the Edward’s Aquifer area is that the SWPPP must contain the approval letter as well as the management plan.
All controls identified in the SWPPP must be maintained in effective operating conditions. If an inspection shows maintenance of a control is needed, that control must be made effective before the next rain event if feasible. If maintenance is not feasible, the reason must be documented in the SWPPP and made effective as soon as practicable. This next requirement slips by some people but it is very important. If for any reason a control is intentionally disabled, run over, removed, or otherwise rendered ineffective, the control must be replaced IMMEDIATELY upon discovery. If an inspection finds a control not being used properly, the operator must make a correction as soon as practicable. Sedimentation ponds and basins must have the sediment removed when the design capacity has been reduced by 50%. The same applies to perimeter controls such as silt fence or berms, when capacity has reached 50%, the sediment must be removed. To minimize off-site impact, any sediment leaving perimeter must be removed prior to the next rain event.
Inspection Reports also have requirements to remain in compliance with the CGP:

1. A report summarizing the scope of any inspection must be completed within 24-hours following the inspection. The report must also include the date(s) of the inspection and major observations relating to the implementation of the SWP3. Major observations in the report must include: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.

2. Actions taken as a result of inspections must be described within, and retained as a part of, the SWPPP. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWPPP and this permit.

3. The report must be retained as part of the SWP3 and signed by the person and in
the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

4. The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.
Discharges that would adversely affect a listed endangered or threatened aquatic or aquatic-dependent species or its critical habitat are not authorized by this permit, unless the requirements of the Endangered Species Act are satisfied. Federal requirements related to endangered species apply to all TPDES permitted discharges and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved. If there are concerns or questions about the endangered species, TCEQ will help you.

The Texas Construction General Permit does not have a section on historical sites and their protections but many other states do.
We touched a little on inspections earlier. Now we will, in more detail, discuss inspection requirements to keep the operator in compliance with the CGP.
**INSPECTIONS - FREQUENCY**

- **Every 7 Calendar Days**
- **Every 14 Calendar Days with Rain Event**
- **Monthly**

The minimum inspection frequency is every 14 calendar days and within 24 hours of a rain event of 0.5” or greater. The only exception to this is if the area of inspection is in an arid region, with monthly inspections and within 24 hours of a rain event of 0.5” or greater. There is also a section that states the same if there is no likely runoff due to frozen conditions, but the dates must be recorded in the Stormwater Pollution Prevention Plan or SWPPP.

The 14 day inspection frequency is the common industry standard but there is also the ability to inspect every 7 calendar days with no regard to rain events.

The thing to keep in mind is that these are the minimum requirements per the State of Texas CGP, with many cities having more stringent requirements. For example, Austin requires the inspection frequency to be every 7 or 14 days and within 24 hours of a rain event of 0.5” or greater. Cities are allowed to be more stringent than the CGP but not less than the CGP requirements.

A description of the frequency for that construction site must be notated in the SWPPP.
Before we even start with inspection requirements, we all need to know that the Texas CGP states that the inspector must be knowledgeable of the permit, the construction activity at the site, and the SWPPP for the site.

All stormwater controls, as listed in the SWPPP, must be inspected for proper installation, operating as planned, and minimizing any discharges, as well as any newly identified areas where new or modified controls need to be placed.

Check for signs of any erosion/sediment that can be attributed to the construction site.

Identify any incidence of non-compliance on the construction site.

Identify all discharges from the site and observe and record the quality of the discharge, looking for oil sheen, floating debris, etc. This also includes trash receptacles, as with the new 2018 permit, there is language that if a trash receptacle might leak pollutants, a cover must be provided.

The final step is to complete the maintenance needed based on the inspection report.
This general permit authorizes the land disposal of wash out from concrete trucks at construction sites regulated under this general permit, provided the following requirements are met. Any discharge of concrete production waste water to surface water in the state must be authorized under a separate TCEQ general permit or individual permit.

Discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.

Concrete truck wash out water shall be disposed in areas at the construction site where structural controls have been established to prevent discharge to surface water in the state, or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent discharge to surface water in the state. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.

Wash out of concrete trucks during rainfall events shall be minimized. The
discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck wash out as the result of rainfall or stormwater runoff.

The disposal of wash out water from concrete trucks, made under authorization of this general permit must not cause or contribute to groundwater contamination.

If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated site map.
In these next few slides we will see what compliance looks like, as well as what non-compliance looks like. Concrete washouts must be cleaned out when they reach 50% capacity or a large rainfall event is predicted. As you can see the washout on the left is compliant and the washout on the right, well, it need a LOT of attention.
One thing we have not touched on yet is portable facilities. While I understand the photo on the left is not always possible to install, there are some specifications as to how. They should NEVER be in the street, on the sidewalk, and ESPECIALLY nowhere near an inlet, as you see on the right photo. They need to be back from the sidewalk on the ground with the door facing anywhere except towards the street and staked down.
A few things with this slide that need to be mentioned. First, the picture on the left is compliant, as you will notice silt fence in perfect condition and erosion control blanket protecting where there is no silt fence. This allows workers to drive onto the lot without damaging any BMPs. Now let’s look at the other photo. This is a very typical thing to see when workers have now way to access the lot. There is something else to note here. Notice how well the vegetation has taken? Well, to remain compliant, the operator need to either pull, repair, or replace the down silt fence, even though there is abundant vegetation.
Another thing we have not mentioned is streets. If there is mud or dirt in the street, that means we are out of compliance due to sediment leaving site. It does not matter how the sediment left the site, only that it did. Dirty and clean streets are something that many MS4s look at more rigidly than other things.
Trash will be the last BMP compliance we will look at before moving on to the next topic. Trash has become a complicated issue for many since the insertion of specific language for the 2018 permit that was not in the 2013 permit. It reads:

“Minimize the exposure of waste materials by closing waste container lids at the end of the work day. For waste containers that do not have lids, where the container itself is not sufficiently secure enough to prevent the discharge of pollutants absent a cover and could leak, the permittee must provide either a cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, or a similarly effective means designed to minimize the discharge of pollutants”

The main purpose is not only stated in the regulation, it also has to do with trash that can be blown around or float in water. We call this blowable/floatable trash.
Now we will talk about maintenance requirements to keep the operator in compliance with the CGP.
MAINTENANCE OF CONTROLS

- Controls Identified in SWPPP
- Effective Operation
- Timing

All erosion/sediment controls must be notated in the SWPPP, as learned previously, any new controls must be added to the SWPPP. All protective measures identified in the SWPPP must be maintained in effective operating condition. Maintenance should occur before the next rain event and if that timing is not practical, it should be notated in the SWPPP the reason why and must be scheduled when practical. There is one exception to this timing. Erosion and sediment controls that have been intentionally disabled, run over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery. In the construction arena, we find silt fence run over all the time and most people do not realize that triggers and immediate response.
Sediment traps and ponds must be cleaned out at the time in which the design capacity is reduced by 50%. The danger here is if the pond is allowed to continue to receive sediment, the water will become displaced and a discharge is imminent. Remember this key phrase, “Sediment is a pollutant and the Environmental Protection Agency, EPA, considers sediment to be the number one pollutant in the United States”.

Perimeter controls have a similar regulation. Perimeter controls consist of silt fences, fiber rolls or wattles, and berms. When the perimeter control has sediment that reaches 50% from ground height, the sediment must be removed.
A Notice of Change or NOC is required if relevant information provided in the NOI has changed. The operator that submitted the NOI will submit an NOC 14 days before the change occurs, if feasible. Where a 14-day advance notice is not possible, the operator must submit an NOC to TCEQ within 14-days of discovery of the change. A copy of this NOC must be placed in the SWPPP and a copy must be sent to the operator of the MS4.

Typical reasons for submitting an NOC are a change in the description of the construction project, an increase in the number of acres disturbed, and the name of the operator if changing.
A Notice of Termination (NOT) must be filed when the construction project is completed. This NOT must also be sent to all applicable MS4s as well as a copy of the signed NOT in the SWPPP for document retention. An NOT can be submitted under the following conditions:

(a) final stabilization has been achieved on all portions of the site that are the responsibility of the operator; NOTE: Final stabilization is defined as 70% coverage, 100% density with no large bare areas of perennial vegetation. If you can throw a hula-hoop (~1 m²) on it and it doesn’t meet that requirement, you can’t NOT the site. Per the TCEQ at the 2017 EPA conference in San Antonio, erosion control blankets and seeding does meet the stabilization requirement, as long as you verify that the seed germinates and takes hold.

(b) a transfer of operational control has occurred (See Section II.F.4 below); or

(c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.
The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted. For activities in which an NOT is not required, records shall be retained for a minimum period of three (3) years from the date that the operator terminates coverage. Records include:

1. A copy of the SWPPP;
2. All reports and actions required by this permit, including a copy of the construction site notice;
3. All data used to complete the NOI, if an NOI is required for coverage under this general permit; and
4. All records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.
Does anyone have any questions or comments?
Thank you for attending this workshop and I hope this information was useful. My contact information is on this slide if you would like to reach out to me. And again, remember to stay for the second part of this topic, compliance from a regulatory point of view.