

**PHILADELPHIA WATER DEPARTMENT**

**DEVELOPMENT SERVICES  
COMMITTEE MEETING**

December 5, 2013

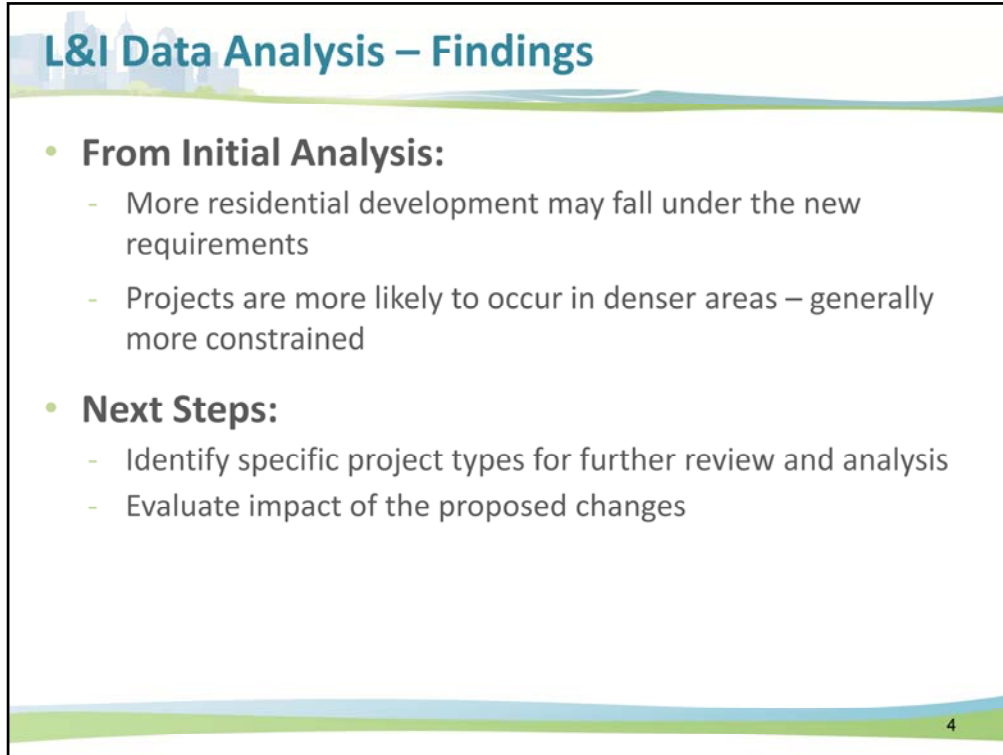


## Agenda

- Welcome
- Technical Analysis Update
- Compliance Approaches
- 2014 Changes
- Outreach Preview
- 2013 Recap
- Next Meeting

# IMPACT ANALYSIS EARTH DISTURBANCE THRESHOLD



A presentation slide titled "L&I Data Analysis – Findings". The slide has a decorative header with a city skyline and a green and blue wave pattern. The content is organized into two main bullet points: "From Initial Analysis:" and "Next Steps:". Each main point has two sub-bullets. The slide number "4" is located in the bottom right corner.

### L&I Data Analysis – Findings

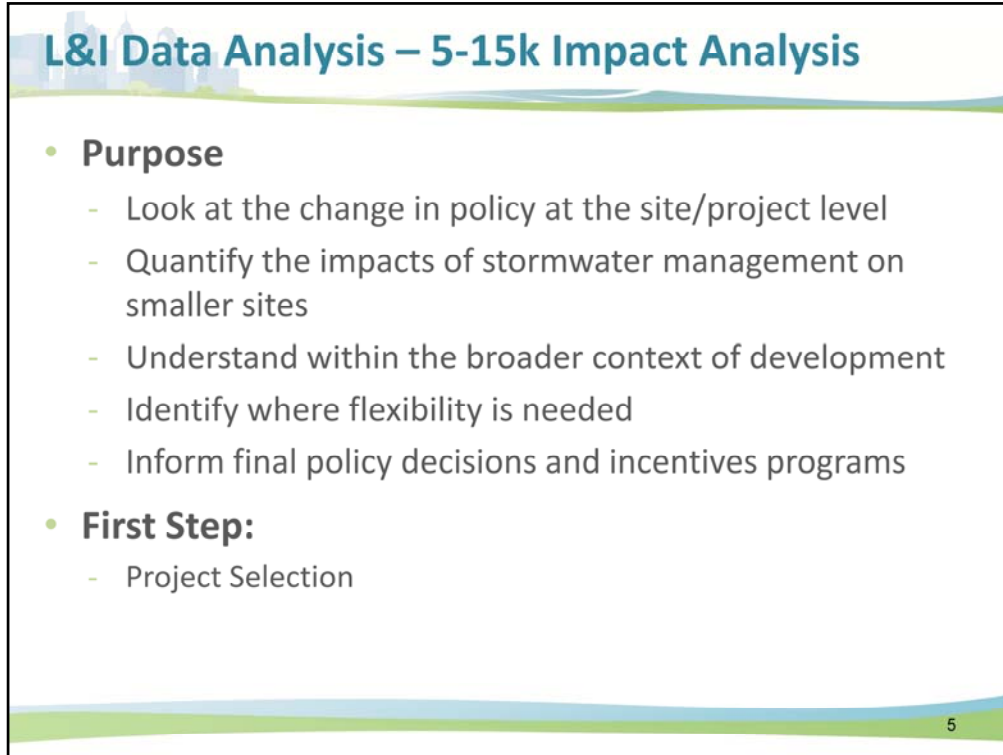
- **From Initial Analysis:**
  - More residential development may fall under the new requirements
  - Projects are more likely to occur in denser areas – generally more constrained
- **Next Steps:**
  - Identify specific project types for further review and analysis
  - Evaluate impact of the proposed changes

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As discussed at the previous DSC Meeting, the initial findings from the L&I data analysis indicate that more residential properties may be subject to the stormwater management requirements with the reduction of the earth disturbance threshold from 15,000 to 5,000 square feet. In addition, denser areas of the City will be impacted as these sites are typically smaller than those located in other areas of the City and are already generally more constrained.

Since the last meeting, PWD has continued with the analysis – working to:

- Select sites/types of projects for more detailed evaluation;
- Develop a methodology to evaluate stormwater management for these sites; and
- Identifying “impact metrics” to help PWD further understand and evaluate what these changes mean with regard to site development including items beyond just stormwater management.



## L&I Data Analysis – 5-15k Impact Analysis

- **Purpose**
  - Look at the change in policy at the site/project level
  - Quantify the impacts of stormwater management on smaller sites
  - Understand within the broader context of development
  - Identify where flexibility is needed
  - Inform final policy decisions and incentives programs
- **First Step:**
  - Project Selection

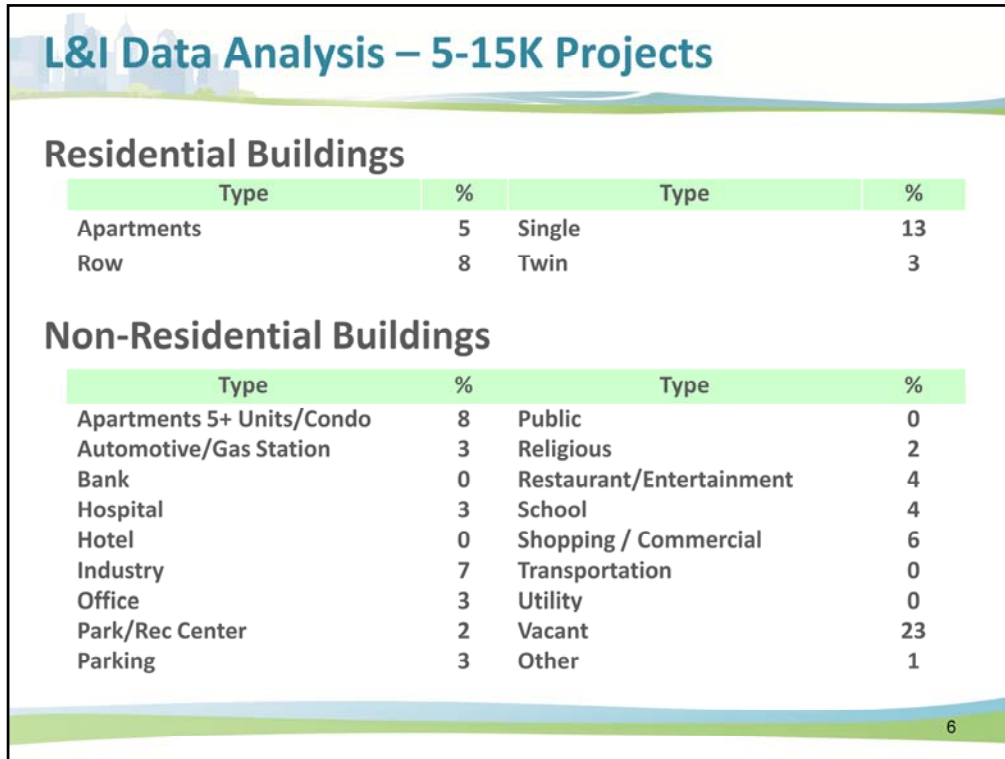
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The purpose of the impact analysis is to take the change in policy from the macro (or City-wide level) down to the site/project specific level. The L&I Analysis helped to identify what types of projects would likely be impacted and provide a general sense of where these projects might be found throughout the City. The analysis so far has shown that residential may need special consideration. In addition, there may be differences between projects that are 5,000 square feet in size and those that are 10,000 square feet. – this might also be recognized in the final adopted stormwater management requirements.

With this analysis, PWD is looking at how stormwater management might be achieved on these smaller sites. In addition, PWD wants to understand the impacts in the broader context of development such as

- How do these changes interact with the new zoning requirements,
- What is the impact to construction costs, and
- How do they potentially influence site design and ultimately developed space within the project footprint.

The next slides outline the proposed methodology/approach. PWD is looking for feedback on the case study/site selection and some of the impact metrics that will be assessed as part of this effort. This intended to help PWD make a formal policy decision about what Stormwater Management Requirements will be adopted for projects of this size, and what circumstances may need additional programs or incentivize to allow projects to comply with the new requirements, while minimizing the impact and offering flexibility where practical.

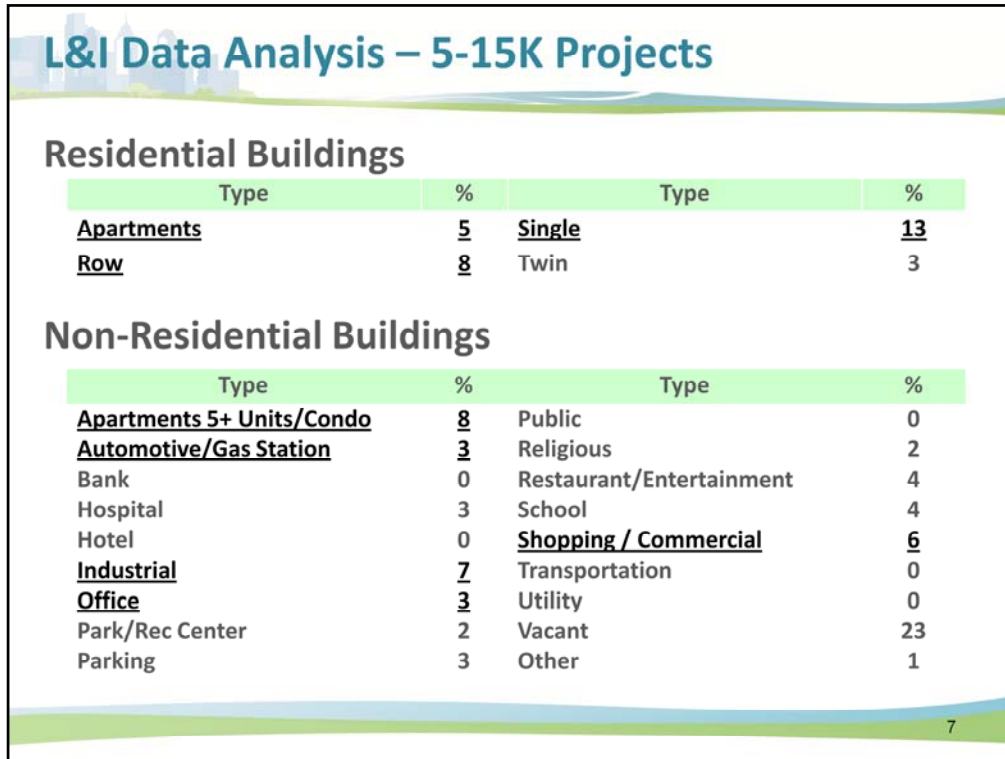


Recall from the previous meeting that the L&I Data suggests that between 5-15k square feet of estimated earth disturbance – roughly 30% of the projects were residential and 70% non-residential. For comparison, for sites with estimated earth disturbance of 15,000 square feet and above approximately 9% were residential.

Of the 27 different building types identified as part of the L&I Analysis, only 22 had projects with estimated earth disturbance between 5-15k square feet. This tables presents the percentage of the roughly 500 projects identified that each building type represents.

The vacant designation is based upon the Office of Property Assessment’s classification and is more of a catch all. If these properties undergo redevelopment then they’re reclassified. PWD will be taking a closer look at this category – based upon preliminary review – many of these properties are likely residential.

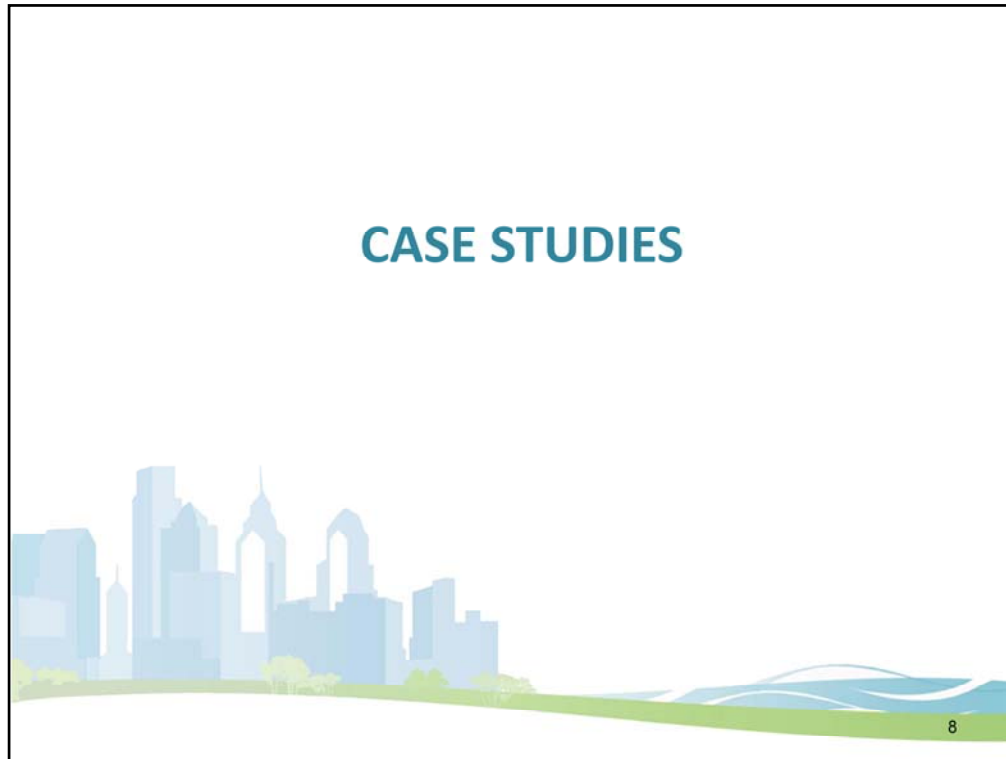
Note: The date range for this analysis is from 2007 to 2012. PWD anticipates updating the analysis with the 2013 data once it is available.



PWD is using a data driven approach and utilizing the L&I analysis to identify common types of projects in order to evaluate compliance situations. This will help PWD anticipate the types of projects they can expect to see if the new earth disturbance requirement is implemented. PWD will also help to identify which project types might need further investigation, which ones may involve special circumstances or considerations (e.g. gas stations), and which ones capture similar land uses or cover different types of development.

PWD Identified the following project types for the initial set of evaluations, using the L&I data and the PWD’s plan review staff’s knowledge and experience.

PWD is interested in the DSC’s feedback on the types of development projects to be evaluated and if the DSC thinks any projects are missed or under-represented.



The following slides present several specific sites that have been identified for further evaluation. To get started, PWD is utilizing projects that have been submitted for review via PWD's online application website as PWD has more detailed information available and basic understanding of these projects. PWD is also looking to L&I analysis to identify additional projects for further case studies.

Note this is not the full suite of case studies. Rather, PWD wanted to provide the DSC with a examples of the types of projects that will be evaluated. These will be revisited at future DSC meetings.





**Project Name:** 200-206 N. 21<sup>ST</sup> Street

**Location:** Intersection of Race and 21<sup>st</sup>; Center City

**Proposed Development:** 8 townhouses with one way entrance drive off 21<sup>st</sup> St.

**Sewershed:** Combined

**Earth Disturbance:** 14,690 SF

This image shows the pre-development condition with the existing parcel boundary shown in blue.



**Project Name:** 200-206 N. 21<sup>ST</sup> Street

**Location:** Intersection of Race and 21<sup>st</sup>; Center City

**Proposed Development:** 8 townhouses with one way entrance drive off 21<sup>st</sup> St.

**Sewershed:** Combined

**Earth Disturbance:** 14,690 SF

The image above shows the proposed site development with the limit of disturbance shown in red. The layout for the 8 townhomes can be seen along with the proposed driveway located at the rear of the property. In this case the entire parcel would be disturbed. In addition, areas of the public right of way would be disturbed to install utility laterals and the driveway entrance at N. 21st Street and the exit onto Van Pelt Street.



**Project Name:** Westminster Place SIL

**Location:** 4501 Westminister Ave; West Philadelphia

**Proposed Development:** 7 unit single-story residential building with concrete patios located in the rear

**Sewershed:** Combined

**Earth Disturbance:** 7,500 SF

This image shows the pre-development condition with the existing parcel boundary shown in blue.





**Project Name:** Westminster Place SIL

**Location:** 4501 Westminister Ave; West Philadelphia

**Proposed Development:** 7 unit single-story residential building with concrete patios located in the rear

**Sewershed:** Combined

**Earth Disturbance:** 7,500 SF

The image above shows the proposed site development detailing the 7 residential units with the limit of disturbance is shown in red. With this proposed site development – rear patios are proposed but the site is generally more constrained than the previous example as there is no access from the public streets to the rear of the property. Again, the entire parcel would be disturbed. In addition, areas of the public right of way would be disturbed to install utility laterals and to replace the existing sidewalk in front of the residential units.

With the Guidance Manual changes planned for February 2014, PWD intends to no longer count sidewalk replacement toward the earth disturbance calculation for the stormwater management threshold trigger. PWD recognizes that sidewalks often need to be replaced as part of a redevelopment/development project regardless of whether or not the developer initially intends on replacement.

In the future, PWD may consider extending this rule to include any right-of-way disturbance. The property owner would still be responsible for providing erosion and sediment controls for disturbance within the right-of-way.



**Project Name:** Proposed Bottom Dollar Foods

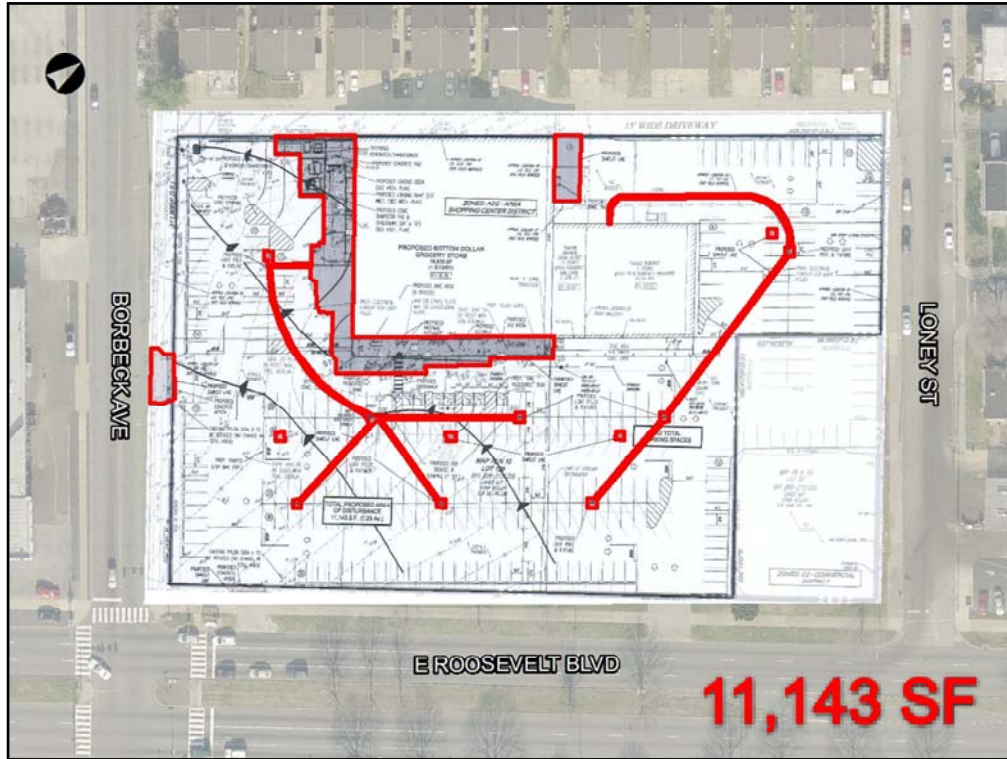
**Location:** 7900 E Roosevelt Blvd; North Philadelphia

**Proposed Development:** Demolition of existing catering facility which will be retrofitted to accommodate a proposed supermarket; includes mill/overlay of existing parking lot; it appears that part of the original building was turned into the Bottom Dollar Foods, which expanded to include the dumpster area and electrical housing.

**Sewershed:** Separate

**Earth Disturbance:** 11,143 SF

This image shows the pre-development condition with the existing parcel boundary shown in blue.



**Project Name:** Proposed Bottom Dollar Foods

**Location:** 7900 E Roosevelt Blvd; North Philadelphia

**Proposed Development:** Demolition of existing catering facility which will be retrofitted to accommodate a proposed supermarket; includes mill/overlay of existing parking lot; it appears that part of the original building was turned into the Bottom Dollar Foods, which expanded to include the dumpster area and electrical housing.

**Sewershed:** Separate

**Earth Disturbance:** 11,143 SF

The image above shows the proposed site development with the limit of disturbance, which includes trenching for electrical conduits needed to install site lighting, is shown in red. This project involved small scale additions to the existing building and changes to the parking lot area.

PWD anticipates that these types of project will be typical of both commercial and industrial projects where small additions and site reconfiguration are needed but full scale redevelopment is not required.





**Project Name:** Proposed Bottom Dollar Foods

**Location:** 7900 E Roosevelt Blvd; North Philadelphia

**Proposed Development:** Demolition of existing catering facility which will be retrofitted to accommodate a proposed supermarket; includes mill/overlay of existing parking lot; it appears that part of the original building was turned into the Bottom Dollar Foods, which expanded to include the dumpster area and electrical housing.

**Sewershed:** Separate

**Earth Disturbance:** 11,143 SF

The image above shows the completed project site. It's important to note that the entire parking lot was milled and repaved – this activity is not considered earth disturbance and therefore not counted toward the earth disturbance for this project.



**Project Name:** Sunoco A-Plus Convenience Store

**Location:** 8239 Stenton Ave; Northwest Philadelphia

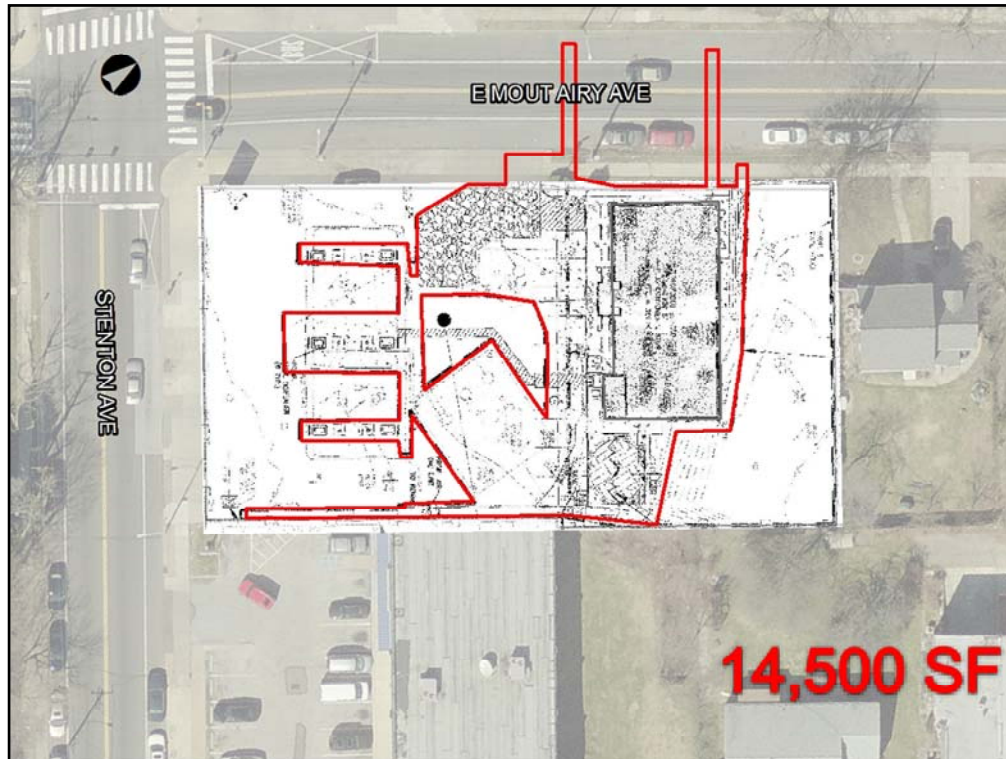
**Proposed Development:** Demolition of existing kiosk and addition of two fueling islands; construction of A-Plus Convenience Store

**Sewershed:** Combined

**Earth Disturbance:** 14,500 SF

This image shows the pre-development condition with the existing parcel boundary shown in blue.





**Project Name:** Sunoco A-Plus Convenience Store

**Location:** 8239 Stenton Ave; Northwest Philadelphia

**Proposed Development:** Demolition of existing kiosk and addition of two fueling islands; construction of A-Plus Convenience Store

**Sewershed:** Combined

**Earth Disturbance:** 14,500 SF

The image above shows the proposed site development with the limit of disturbance shown in red.



**Project Name:** Sunoco A-Plus Convenience Store

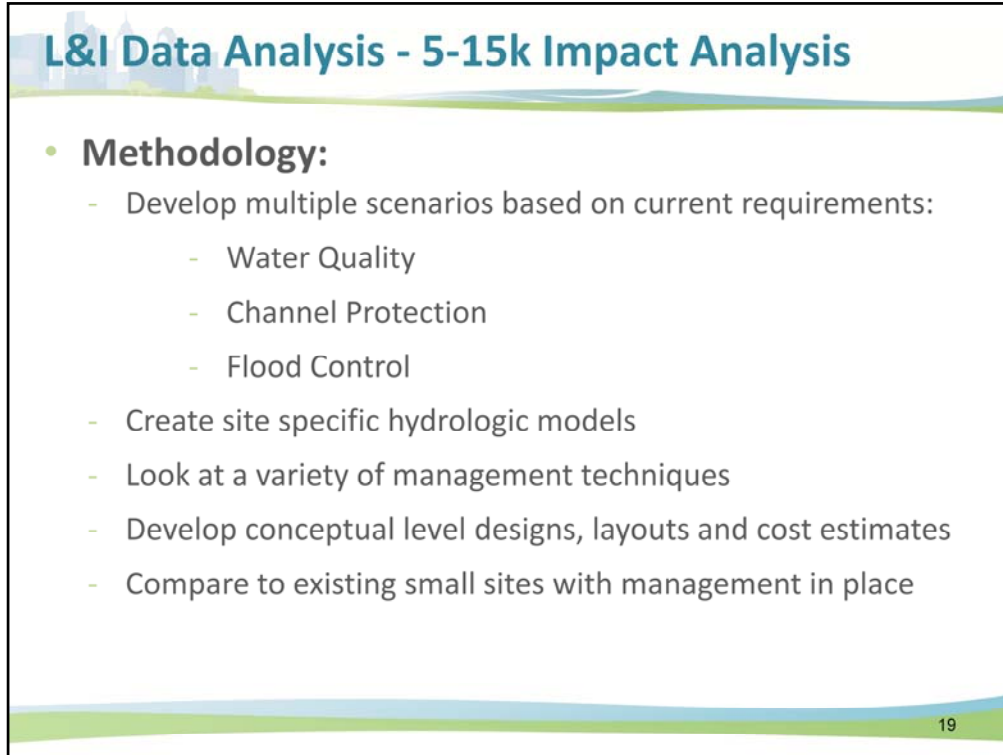
**Location:** 8239 Stenton Ave; Northwest Philadelphia

**Proposed Development:** Demolition of existing kiosk and addition of two fueling islands; construction of A-Plus Convenience Store

**Sewershed:** Combined

**Earth Disturbance:** 14,500 SF

The image above shows the completed project site. Stormwater management must still be implemented on sites such as gas stations, where environmental concerns are present. This site in particular may be able to accommodate stormwater management behind the convenience store – in the grassed/vegetated portions of the site. Even though the site is considered a hotspot, stormwater management is required.



## L&I Data Analysis - 5-15k Impact Analysis

- **Methodology:**
  - Develop multiple scenarios based on current requirements:
    - Water Quality
    - Channel Protection
    - Flood Control
  - Create site specific hydrologic models
  - Look at a variety of management techniques
  - Develop conceptual level designs, layouts and cost estimates
  - Compare to existing small sites with management in place

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For each case study, multiple compliance scenarios will be analyzed to understand the impact and interaction of the various stormwater management requirements including water quality, channel protection, and flood control. The differences between development and redevelopment projects will be considered in context of existing exemptions available for channel protection and flood control requirements, if a 20% reduction in directly connected impervious area is achieved.

A variety of SMPs (stormwater management practices) will be evaluated not just pervious pavement and greenroofs – surface practices such as bioretention systems, detention and slow release systems as well as pollutant removing SMPs will be considered.

Engineering models along with conceptual level design and layouts will be developed to understand the impact of the stormwater management requirements on site layout and the overall project.

Understanding that projects of this size did not previously have to provide stormwater management, PWD will be investigating the cost of SMPs for these sites including design, permitting, construction, and long-term maintenance costs.

PWD will compare the results of this analysis against other smaller sites, such as some of the examples presented at the last DSC meeting, located in the Wissahickon watershed that were required to install stormwater management practices.

**L&I Data Analysis - 5-15k Impact Analysis**

- **Impact Metrics:**
  - Timing / Review Period
  - Zoning Compliance
  - Construction Costs
  - Surface Level Impervious
  - Building Footprint

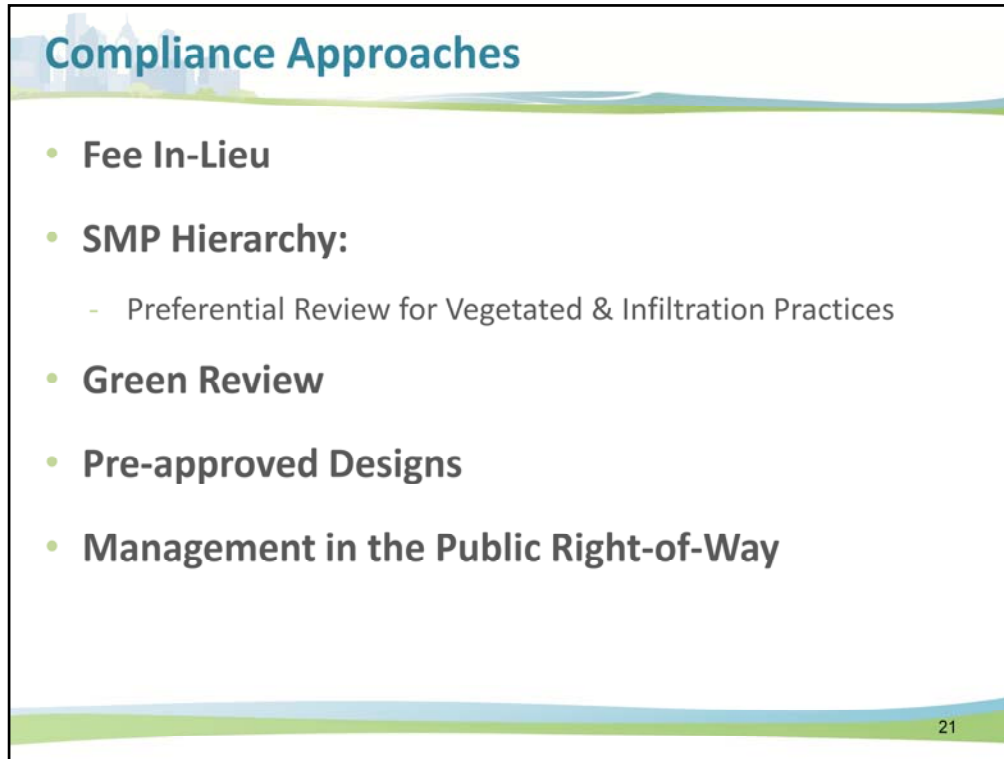
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Beyond stormwater management requirements, PWD wants to understand the broader impact of these changes. This will help to guide the final policy and program decisions and inform how to target incentivize policies and alternate paths to compliance.

PWD is aware that these changes have the potential to impact a project in a variety a ways; therefore, PWD will be evaluating the impact metrics listed above to understand the overall impact on:

- Timing /Review Period – PWD understands that projects of this size did not typically require PWD stormwater plan approval and this has the potential to impact the overall project schedule. PWD is looking to manage and minimize this impact for both the development community as well as the Department.
- Zoning Compliance – PWD is aware of the new zoning code and doesn't want to implement a stormwater management policy that conflicts with these requirements. Rather PWD wants the stormwater management and zoning requirements to work together and complement one another when possible.
- Construction Costs – As previously discussed, PWD understands that this is an additional project cost and will evaluate costs associated with engineering design, permitting, construction and maintenance. If possible PWD would like to understand the impact of stormwater management as an overall percentage of total project costs.
- Surface Level Impervious and Building Footprint – Stormwater management requirements may impact the overall site layout and size of both surface level impervious as well as building footprint. PWD understands this may impact projects beyond site layout and may influence developer decisions from a financial perspective.

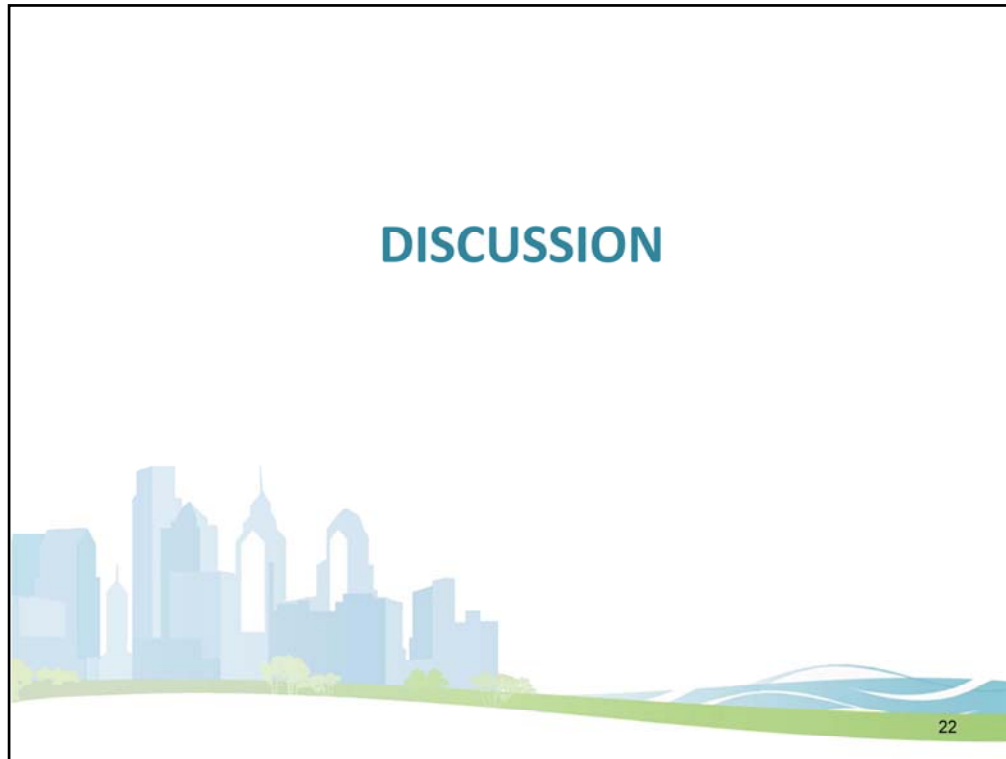
PWD will provide the DSC with progress updates and plans to provide the DSC with summary results at future meetings. PWD may reach out to the DSC to provide input on the overall timeframe for project approval beyond PWD's plan review process, cost estimates, and input on potential impacts to site layouts.



PWD has considered a variety of compliance approaches as they apply to smaller sites.

- **Fee In-Lieu** – PWD has contracted with local economic consulting firm, Econsult to help in evaluating and updating the fee in lieu policy. While rarely used, and only as an option of last resort, for larger development projects, it is anticipated that fee in-lieu might be more frequently used as a tool for 5-15k sites. As such, a policy specifically for sites of this size will be evaluated. PWD will provide the DSC with updates at future meetings.
- **SMP Hierarchy** – PWD would like to recognize SMPs which best meet Department stormwater management goals by offering a quick path through the review process. Surface practices which utilize vegetation and infiltration best meet PWD’s goals and are often less maintenance intensive in the long-term for the property owner.
- **Green Review** – This would extend the existing policy to include 5-15k sites. Projects are eligible for green review when 95% or more of the impervious area is disconnected from the sewer. This typically requires the site design to utilize green roofs and pervious pavement for what would typically be impervious areas.
- **Pre-Approved Designs** – PWD is looking to create pre-approved SMPs designs to help reduce the amount of engineering need for smaller sites and assist with streamlining PWD approvals.
- **Management of the Public Right of Way** – This would allow developers to build stormwater management within the ROW if it cannot be managed on-site.

It is possible that PWD will extend these compliance approaches to larger sites (i.e. 15k or greater) as well.



PWD requested the DSC's feedback on:

- The types of projects selected for further technical analysis.
- The overall impact metric PWD will be evaluating and if there are any additional metrics PWD should be considering.

## FEBRUARY 2014 CHANGES





**February 3, 2014 Changes**

- **Flood Control: Flood Management Districts**
- **Record Drawing Requirements**
- **Operation and Maintenance Agreement Updates**
- **Review Fees**

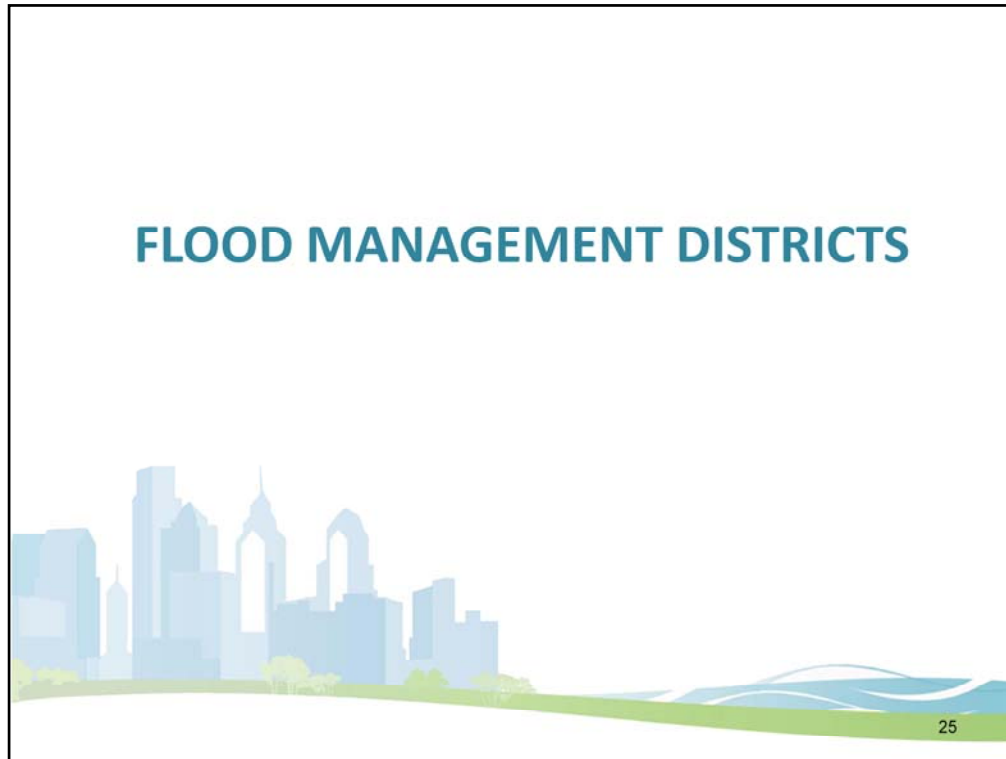
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PWD plans to implement the changes listed above on February 3, 2014.

The DSC has already discussed Record Drawings and Operation and Maintenance Agreements during previous meetings. Flood Control and Review Fees have not been discussed at great length – PWD wants to alert the DSC and members of the development community to these upcoming changes.

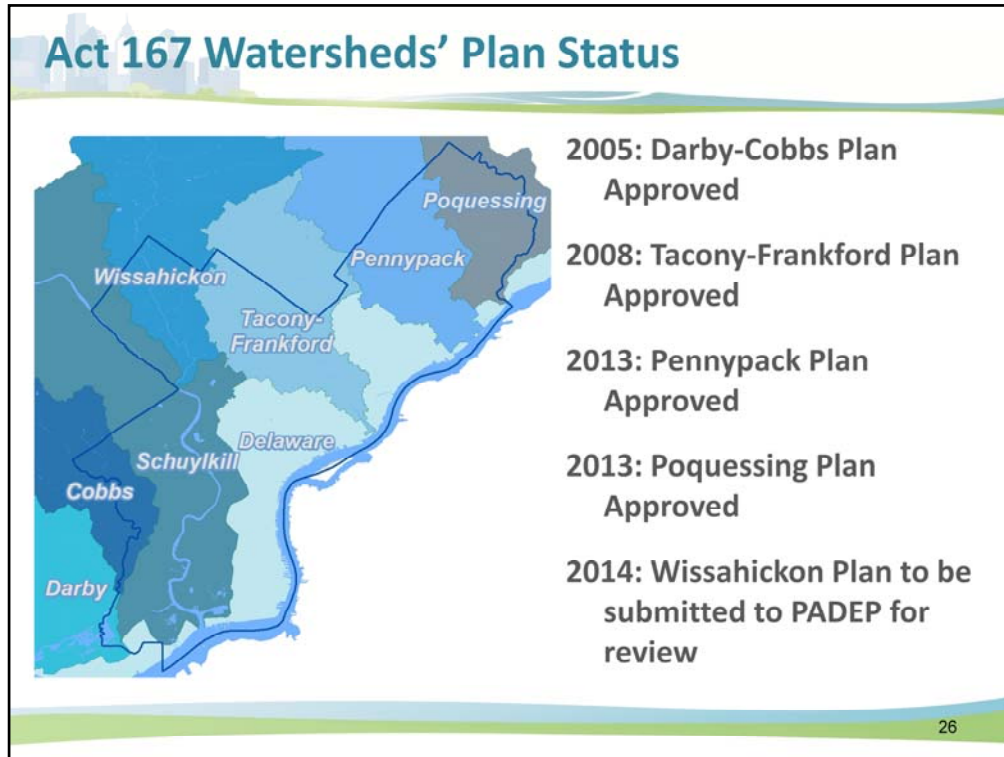
The following slides provide additional background information and details on these changes.





The DSC has primarily discussed the Act 167 Plans as they relate to the earth disturbance threshold requirement. Another important aspect of the Act 167 Plan process is the establishment of updated flood management districts and associated release rate for larger storm events (2-yr to 100-yr).

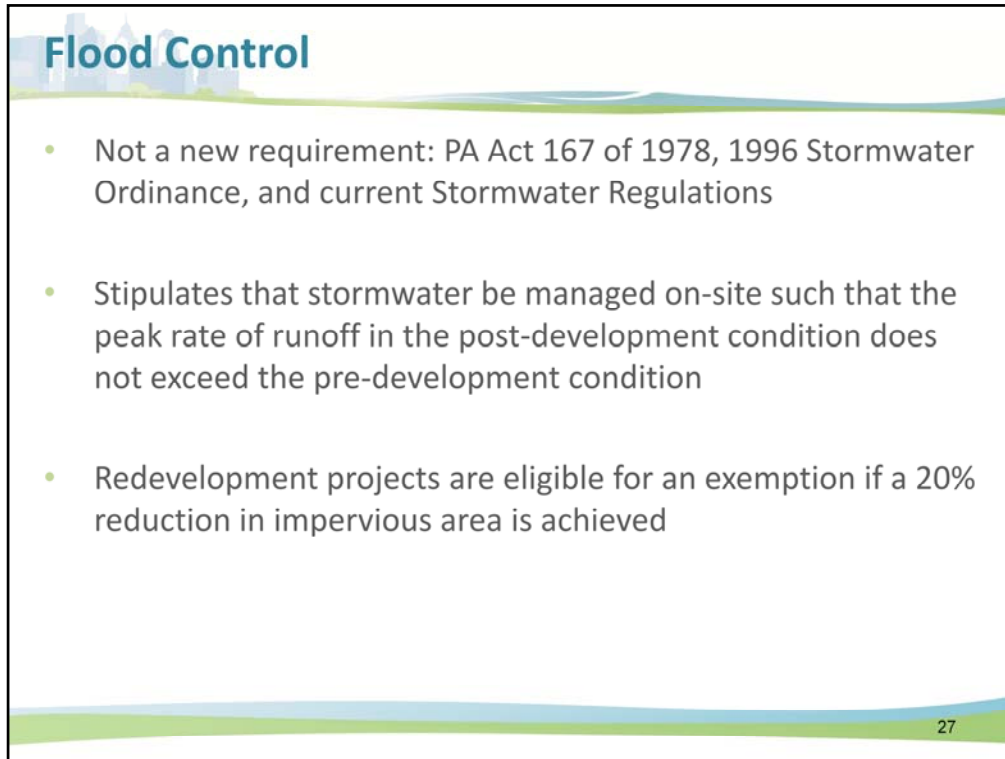
With the February 2014 updates, PWD will implement updated flood management districts and release rate requirements for the Pennypack, Poquessing and Tacony-Frankford Watersheds.



Over the past decade, Philadelphia has assisted in the development of many Act 167 plans throughout the region as the activities of Philadelphia and upstream communities can significantly impact local water resources. PWD has sponsored watershed-wide partnerships, that held stakeholder meetings to facilitate watershed-wide planning across the region, such as those listed here. Note – the plans are developed to be watershed specific .

PWD has held off on implementing the changes associated with Tacony-Frankford plan until the Pennypack and the Poquessing Plans were in place and could be implemented at the same time.

A plan for the Wissahickon is currently under development and will be submitted to PADEP for review in 2014.



**Flood Control**

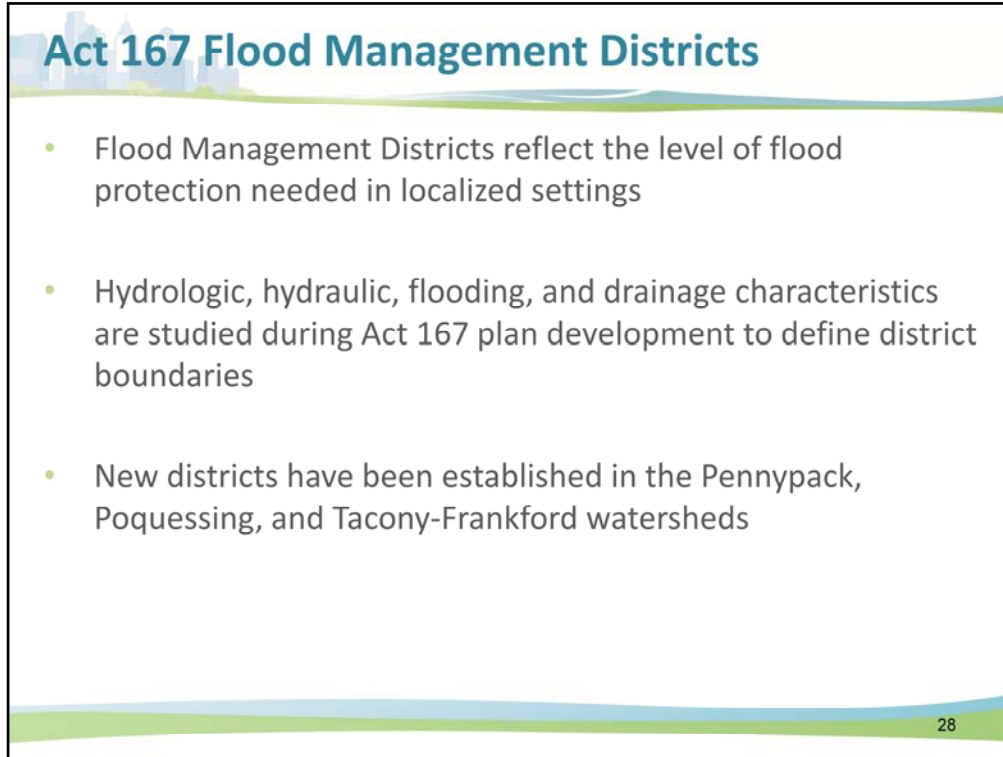
- Not a new requirement: PA Act 167 of 1978, 1996 Stormwater Ordinance, and current Stormwater Regulations
- Stipulates that stormwater be managed on-site such that the peak rate of runoff in the post-development condition does not exceed the pre-development condition
- Redevelopment projects are eligible for an exemption if a 20% reduction in impervious area is achieved

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Flood Control is not a new requirement. Act 167 was enacted in 1978 requiring the implementation of watershed-based stormwater management plans. The need for better flood control across the State was an initial driver behind the legislation and flood control is a critical component of these plans. The individual Act 167 plans stipulate on-site manage requirements for peak rate controls (i.e. major/flood level storm events) .

Flood Control has been a requirement in Philadelphia since 1996 and is included in the current version of the stormwater management regulations.

For redevelopment projects that reduce impervious area by 20%, these projects are eligible for an exemption from flood control requirements.



### Act 167 Flood Management Districts

- Flood Management Districts reflect the level of flood protection needed in localized settings
- Hydrologic, hydraulic, flooding, and drainage characteristics are studied during Act 167 plan development to define district boundaries
- New districts have been established in the Pennypack, Poquessing, and Tacony-Frankford watersheds

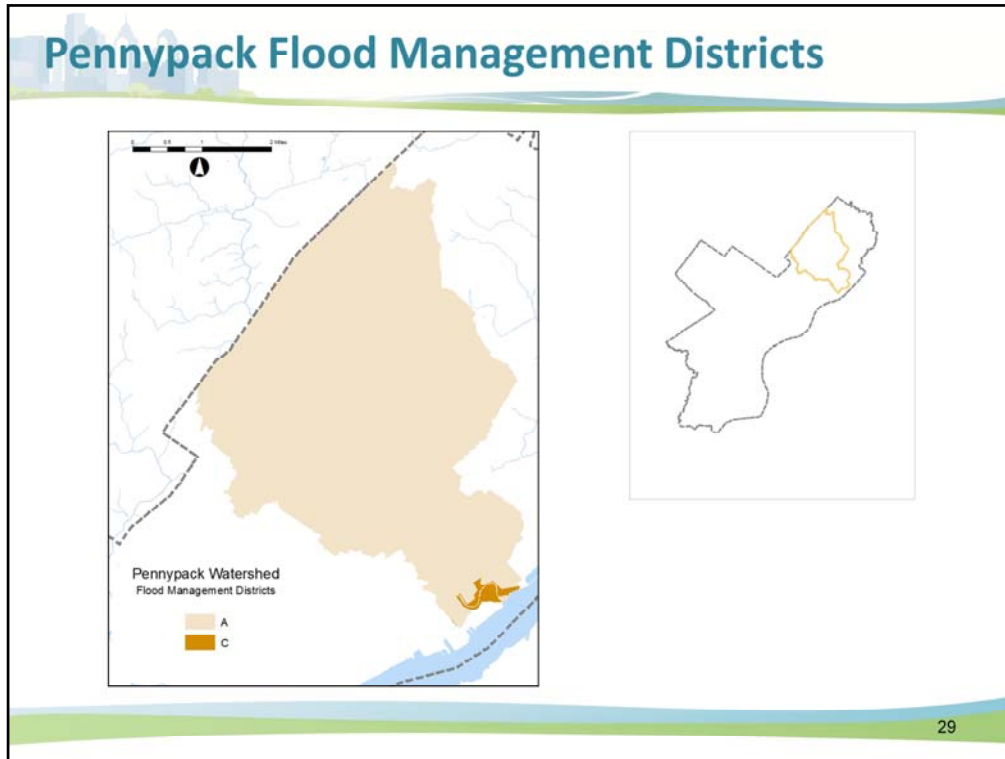
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The Act 167 plans establish watershed specific management districts, setting release rate requirements to address both localized and watershed-wide flooding issues.

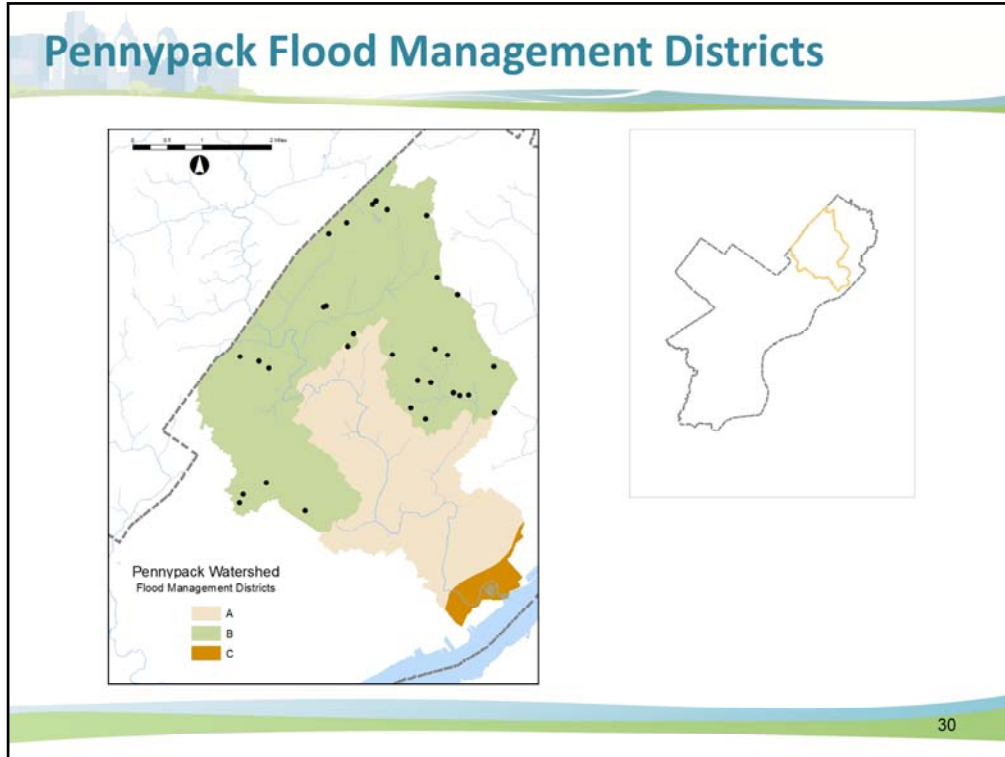
It's important to note that the Flood Management Districts extend beyond the City limit, requiring upstream municipalities to also comply with stormwater management requirements including the release rate requirements.

New flood management districts have been established for the Pennypack, Poquessing, and Tacony-Frankford Watersheds. New B Management Districts and more stringent release rate control requirements are being put in to place to better managed flooding level events within each of these watersheds. As such, these changes may affect stormwater management design requirements for individual projects and impact development projects.

PWD provided the DSC with a handout detailing the updated flood management districts and release rate requirements for each watershed. The following slides highlight the changes in management districts. Under the updated plans, there are three management districts – A, B and C. In District C or “Conditional Direct Discharge” Districts, development sites that can discharge directly without the use of City infrastructure may do so without control of the proposed condition’s peak rate of runoff. If a development site will utilize City infrastructure, then Flood Control will apply and District A release rates must be met. Further clarification regarding the new Flood Management Districts will be provided by PWD in the Guidance Manual.



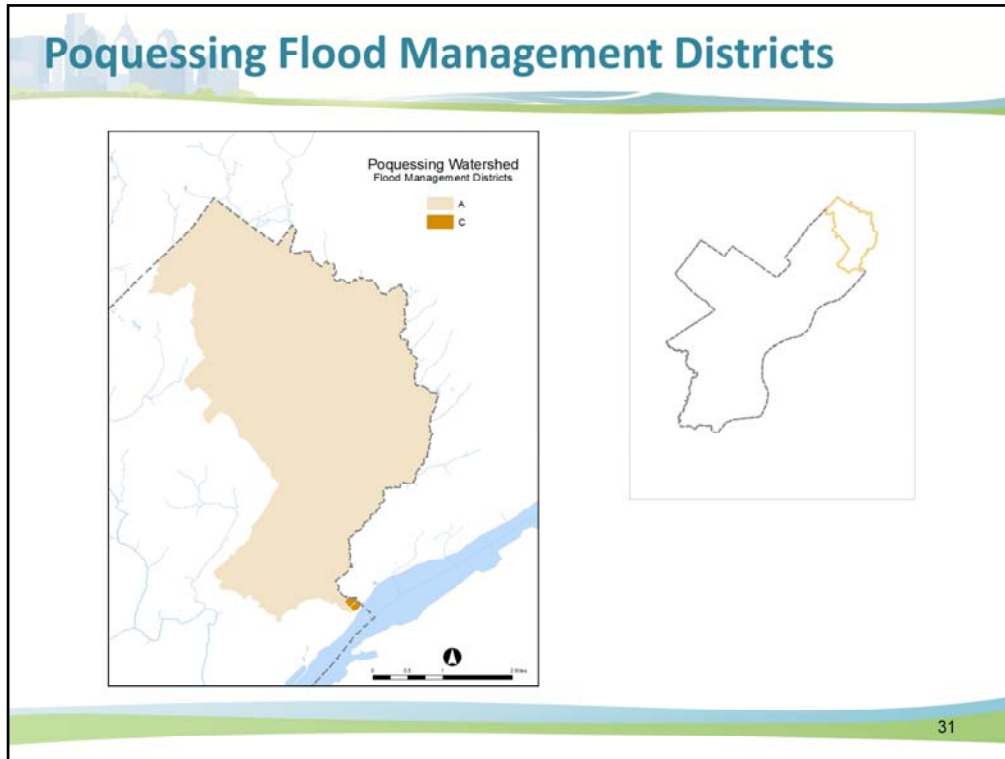
This slides presents the current flood management districts for the Pennypack Watershed.



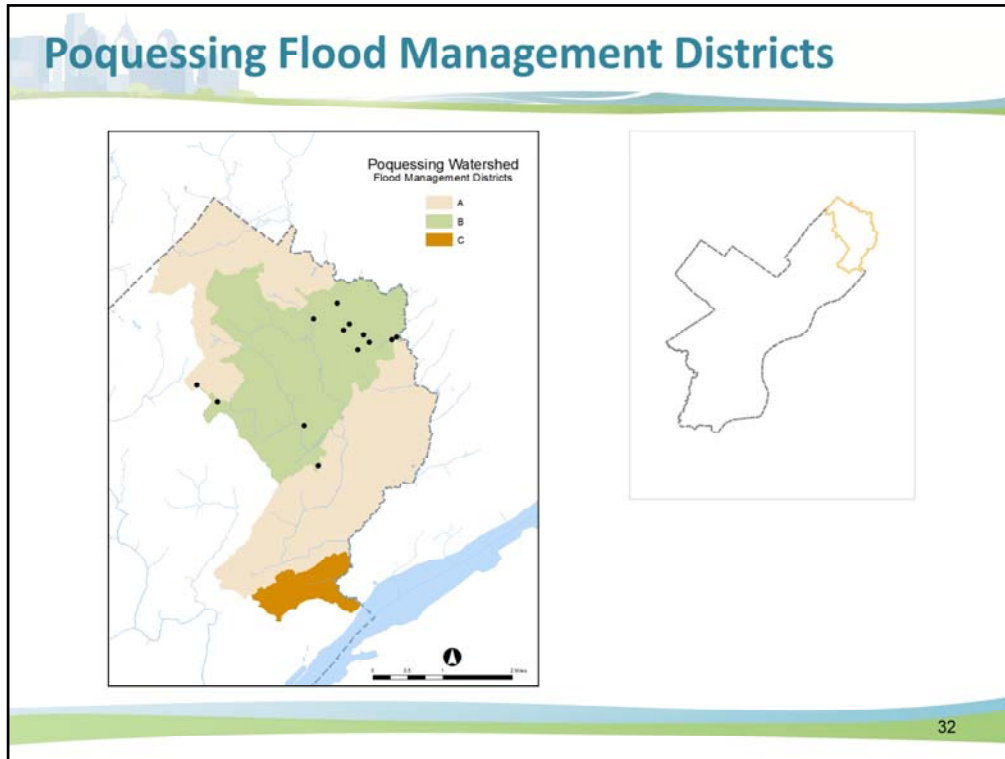
This slides presents the updated flood management districts for the Pennypack Watershed, which will be implemented in February 2014.

The dots shown on the map represent existing development projects located in the new Management District B that would be subject to more stringent Flood Control requirements. If these projects were developed under the updated Act 167 Plans, they may require additional management/larger SMPs to manage stormwater.

A comparison of the current and new release requirements for the Pennypack Watershed is provided in the handout.



This slides presents the current flood management districts for the Poquessing Watershed.

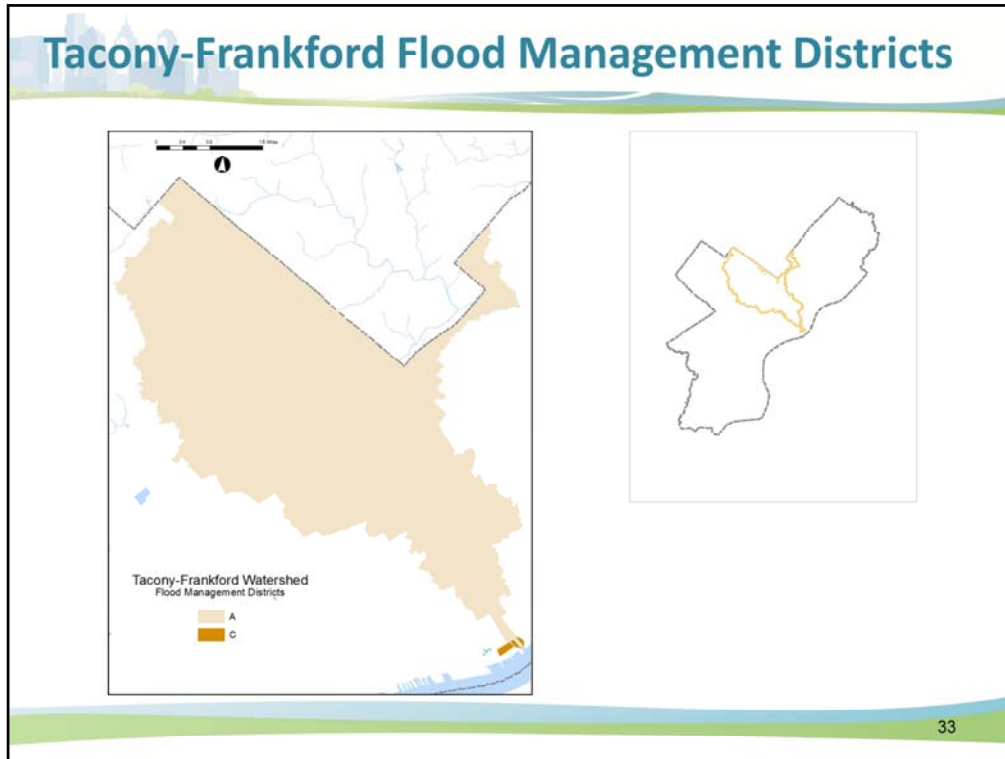


This slides presents the updated flood management districts for the Poquessing Watershed, which will be implemented in February 2014.

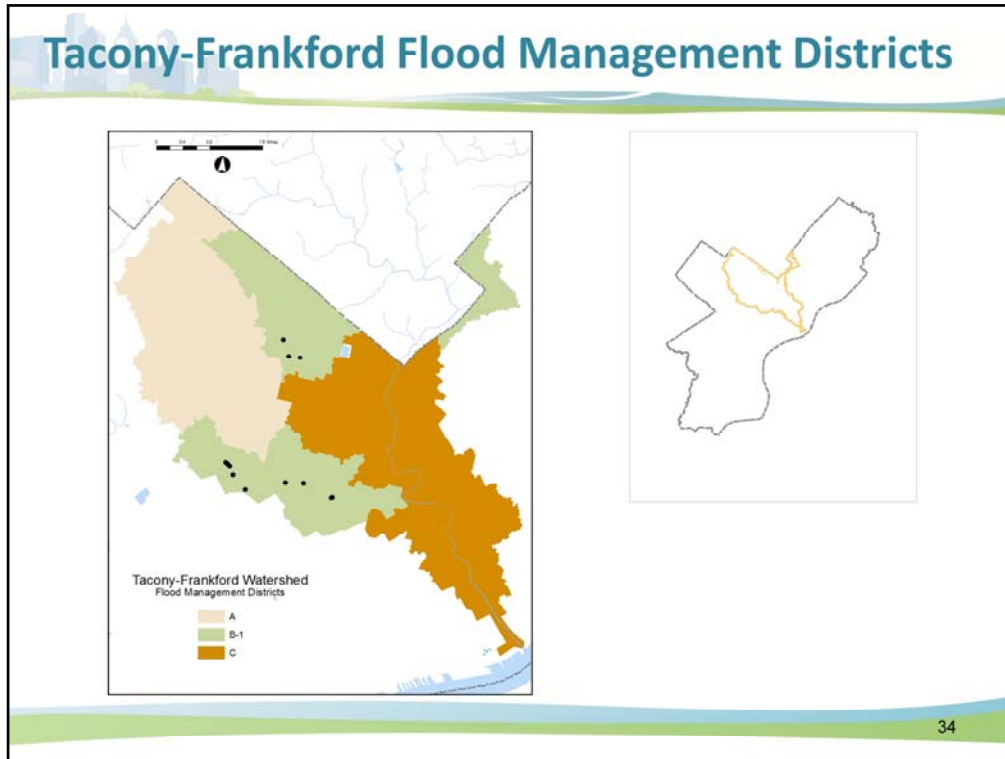
The dots shown on the map represent existing development projects located in the new Management District B that would be subject to more stringent Flood Control requirements. If these projects were developed under the updated Act 167 Plans, they may require additional management/larger SMPs to manage stormwater.

A comparison of the current and new release requirements for the Poquessing Watershed is provided in the handout.





This slides presents the current flood management districts for the Tacony-Frankford Watershed.



This slides presents the updated flood management districts for the Tacony-Frankford Watershed, which will be implemented in February 2014.

The dots shown on the map represent existing development projects located in the new Management District B that would be subject to more stringent Flood Control requirements. If these projects were developed under the updated Act 167 Plans, they may require additional management/larger SMPs to manage stormwater.

A comparison of the current and new release requirements for the Tacony-Frankford Watershed is provided in the handout.

### Flood Control: Flood Management Districts

- 60 Projects approved in new B-Districts
- 90% of Projects were required to meet Flood Control
- Applicability determined by date of initial submittal
- PWD will confirm district at time of Concept Approval

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Based upon PWD Plan Review Records, 60 previously approved projects would now fall into the new B-Districts for all three sheds. Of these projects, 90% were required to meet flood control requirements. Of that 90%, 40% were new development and 60% were redevelopment. The B-district requires more stringent peak flow controls, which could mean larger stormwater basins may be required to manage larger storms.

PWD will confirm the stormwater management requirements including the Flood Management District and release rate requirements at the time of Conceptual Approval.



Changes to the Record Drawing requirements and process are slated for February 2014.

## Record Drawings

**What we heard**

- Design engineer is not always on-site during construction
- Costly for owner/developer to obtain as-built survey
- Disconnect between owner, design engineer, contractor, and PWD

**What we investigated**

- PADEP NPDES construction permit requirements
- L&I special inspection form
- PADEP's requirements of PWD

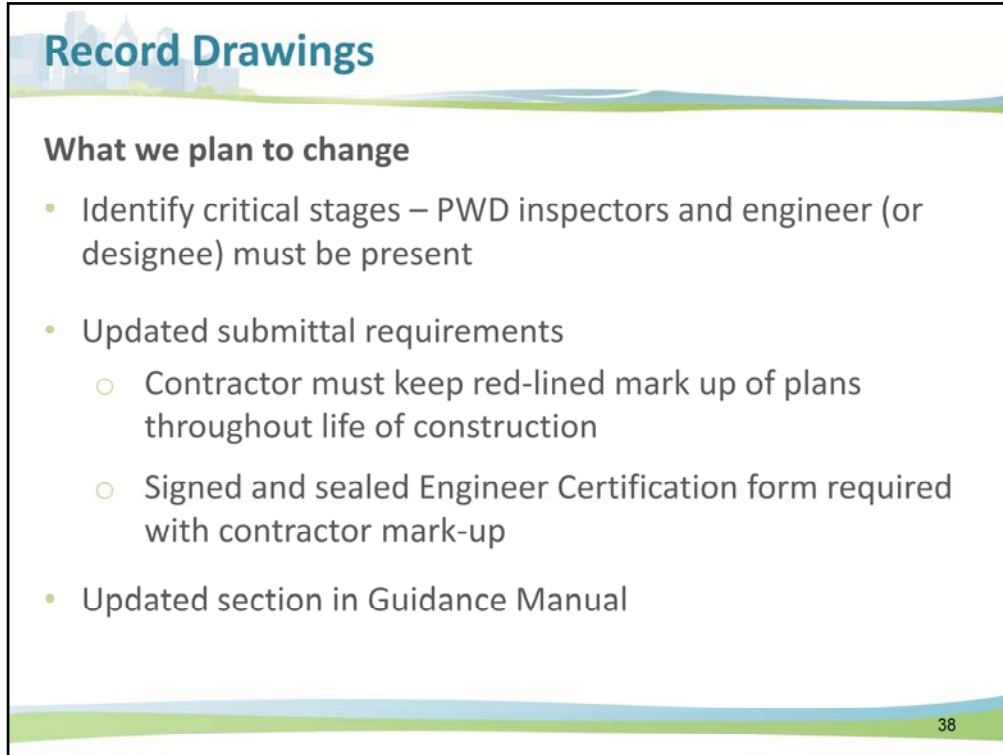
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As discussed at previous meetings, PWD has been evaluating ways to streamline the record drawing requirements and process. Overall, PWD is aware of concerns from the various entities involved in the process understanding that

- The engineer may not always be on-site during construction;
- There is a significant cost associated with obtaining signed and sealed as-built surveys; and
- Additional communication and better understanding of the requirements is needed between all parties involved.

In response to the DSC's feedback from the June meeting, PWD has investigated the following:

- PADEP's requirements as they relate to NPDES construction permits. Record Drawings are a required step in obtaining a Notice of Termination from PADEP for active NPDES permits.
- The Department of Licenses and Inspection Special Inspection Form, which allows the engineer to sign off on specific components of construction.
- PWD also reviewed their compliance requirements as administered by PADEP. These are the requirements that the City is held to as part of the Consent Order and Agreement and Municipal Separate Storm Sewer System (MS4) Permit.

A presentation slide titled "Record Drawings" with a blue header and a green and blue decorative border. The slide contains a section titled "What we plan to change" followed by a bulleted list of three items. The first item is "Identify critical stages – PWD inspectors and engineer (or designee) must be present". The second item is "Updated submittal requirements", which includes two sub-bullets: "Contractor must keep red-lined mark up of plans throughout life of construction" and "Signed and sealed Engineer Certification form required with contractor mark-up". The third item is "Updated section in Guidance Manual". The number "38" is visible in the bottom right corner of the slide.

## Record Drawings

### What we plan to change

- Identify critical stages – PWD inspectors and engineer (or designee) must be present
- Updated submittal requirements
  - Contractor must keep red-lined mark up of plans throughout life of construction
  - Signed and sealed Engineer Certification form required with contractor mark-up
- Updated section in Guidance Manual

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In February 2014, PWD plans on implementing the following changes:

Critical stages of SMP construction and installation will be identified and called out at which both PWD's inspectors and the engineer (or their designee) will need to be present. This is similar to PADEP's current NPDES permitting process, where critical stages are called out and the associated requirements identified in construction sequence.

PWD will allow the contractor to maintain redline mark-ups through-out construction. With this approach, a post construction as-built survey can be avoided when the contractors and the design engineers are able to coordinate and document changes as construction progresses. This partnership would need to be included and established as part of the construction bidding process. PWD wants to add some flexibility to these requirements. Developers still have the option of utilizing an engineer to maintain redline drawings or develop the Record Drawing.

To ensure record keeping, PWD inspectors will confirm that redlines are being kept up to date during site inspections. The Engineer will be responsible for submitting a signed and sealed certification form verifying that they (or their designee) were present during all critical stages of construction and that the SMPs were constructed in accordance with approved PCSM plan. This will need to accompany the red-line drawings.

PWD will also update the appropriate sections of the Guidance Manual and provide additional background and detail on the Record Drawing requirements.

PWD recognizes that increased enforcement may be necessary. PWD has begun discussions with Licenses and Inspections (L&I) regarding holding Certificates of Occupancy until appropriate Record Drawing and close-out information is received. It should be noted that Record Drawings are also a pre-requisite to obtain Stormwater Billing Credit .



Changes to the Operation and Maintenance Agreement requirements and process are slated for February 2014.

## Operation and Maintenance Agreement

**What we heard**

- Process is time consuming and can hold up approval
- Agreement must be amended for changes during construction
- Ensure ultimate property owner is engaged

**What we investigated**

- PADEP NPDES construction permit requirements
- Agreement revisions to shorten compilation step

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PWD currently requires a formal Operation & Maintenance (O&M) Agreement be prepared and executed prior to commencing earth disturbance activities. This is a legal agreement which establishes long-term maintenance requirements to ensure functionality of stormwater management practices and must be recorded with the City's Department of Records.

The current process requires that the applicant submit ownership and property information to PWD. PWD then drafts the O&M agreement and issues it to the applicant for execution. The O&M agreement includes site specific requirements as well as a figure detailing the location of each individual SMP. The applicant must then submit the executed agreement along with the recording fee before PWD can issue PCSMP approval. PWD then records the O&M agreement with the Department of Records and issues a copy to the property owner.

Based upon prior DSC feedback, the current process is time consuming and can hold up the approval process. In addition, because the O&M agreement includes site specific SMP locations and O&M requirements, the agreement often needs to be amended during construction including when a property is either consolidated or subdivided. PWD also wants to ensure that the final property owner is engaged and aware of the O&M requirements they will ultimately be responsible for implementing.

PWD investigated PADEP requirements as they relate to NPDES construction permits. A recorded O&M is a required step in obtaining a Notice of Termination (NOT) from PADEP for active NPDES permits. PWD also looked into ways to shorten the compilation steps associated with the O&M agreement process.



**Operation and Maintenance Agreement**

**What we plan to change**

- Less prescriptive and more standardized agreement
- Inventory of onsite SMPs rather than location map
- PWD will notify property owner of responsibilities at the time of technical submittal
- Updated section in Guidance Manual
- Individual SMP sections with maintenance recommendations

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Based upon this feedback, PWD plans to create less prescriptive and more standardized agreements. To do so, PWD plans to remove site specific requirements and maintenance schedules. Instead, PWD will direct the property owner to recommendations in the Guidance Manual and to obtain specific maintenance measures from their design engineer. The agreement will also include an inventory of the onsite SMPs rather than a detailed location map. These changes will allow for the agreement to be compiled in parallel with plan review and should reduce the overall review timeline.

PWD will notify the property owner of their responsibilities at the time of technical submittal and will direct them to additional information on operation and maintenance recommendations. PWD will also recommend that property owners engage/seek advice from the engineer when developing their O&M Plan.

PWD's Stormwater Guidance Manual will be updated to reflect these changes and O&M processing and procedures.

The above changes will be implemented in February 2014.

Overall, PWD would like to move this step to a later stage in the overall process. In the future, this may occur prior to the issuance of the L&I Certificate of Occupancy (C.O.). Discussions about this will continue with L&I.

A presentation slide titled "Review Fees" with a decorative header and footer. The header features a stylized city skyline in blue and green. The footer contains the number "42". The main content lists current and new fees for Conceptual Approval, Technical Submittal, and Technical Hourly services.

**Review Fees**

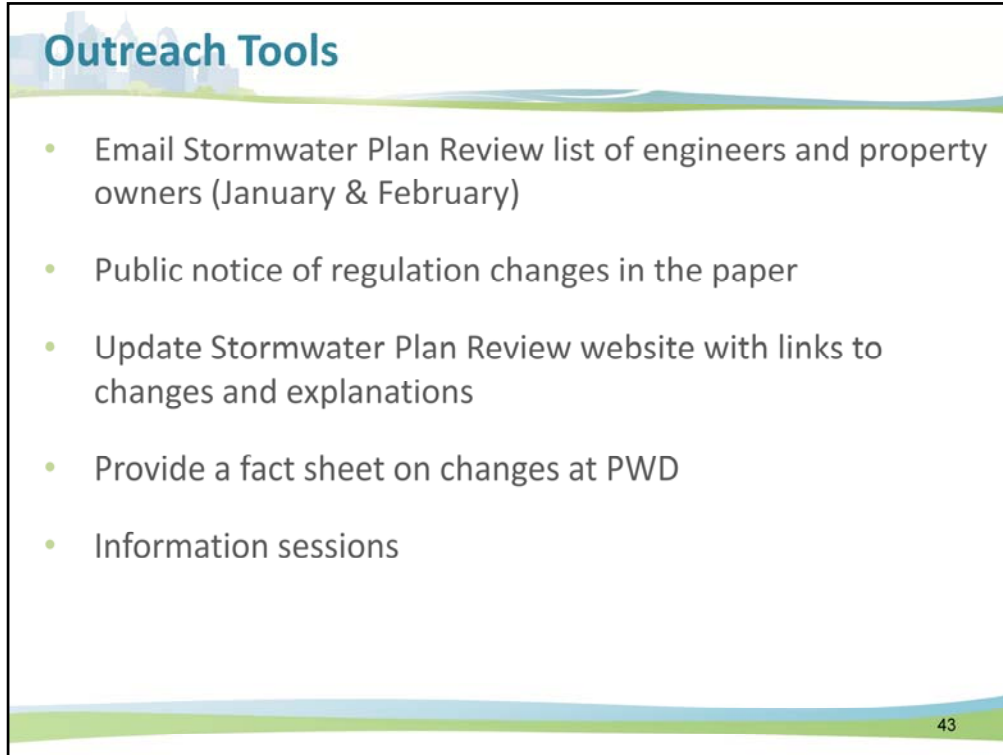
Current Conceptual Approval Fee: \$500  
**New Conceptual Approval Fee: \$600**

Current Technical Submittal Fee: \$500  
**New PCSMP Submittal Fee: \$600**

Current Technical Hourly Fee: \$75/hour  
**New PCSMP Hourly Fee: \$90/hour**

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PWD is updating review fees associated with Conceptual and Technical stormwater plan reviews. The updated fees will go into effect on February 3<sup>rd</sup> 2014.



## Outreach Tools

- Email Stormwater Plan Review list of engineers and property owners (January & February)
- Public notice of regulation changes in the paper
- Update Stormwater Plan Review website with links to changes and explanations
- Provide a fact sheet on changes at PWD
- Information sessions

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PWD has identified a series of outreach tools to help communicate the upcoming February 2014 changes. These may include:

- Email notifications to engineers, property owners, and developers that have previously submitted to PWD.
- Public Notice of the regulations changes in local papers. PWD is required to provide public notice of regulatory changes a minimum of 30 days prior to enactment to allow for public comment.
- Updates to PWD's Stormwater Plan Review website with links to additional background information and more in depth explanation of the changes
- Factsheet summarizing the changes to key regulations as well as associated policy and procedures – available on-line or at PWD's offices.
- Targeted information sessions to communicate the changes to the Development Community.

PWD would like the DSC's support in helping to communicate the changes to the various groups and interests individual members represent. When possible and appropriate, PWD would like the DSC to share any communications with their constituents.

PWD is interested in the DSC's feedback on the following:

- Are there other means of outreach that the DSC feel would be effective in helping to communicate the upcoming changes?
- Are there other e-mail distribution lists PWD could utilize to message the development community?
- Based on the changes discussed with DSC, are information sessions necessary or helpful?

**2013 Recap**

- Banking and Trading ✓
- Act 167 Updates ✓
- Stormwater Management Practices (SMPs) ➡
- Design Criteria Updates ➡
- Incentives ➡
- Operation and Maintenance Agreement ✓
- Design Toolbox ➡
- Project Close-out ✓
- Public-Private Partnerships ➡

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The DSC has discussed a number of topics throughout 2013, such as Banking and Trading, Act 167 Updates, Operation and Maintenance Agreements, Project Close-Out (aka Record Drawings). These topics will be continued to be discussed as further refinements are made and policy decisions reached. PWD also anticipates discussing the following with the DSC in 2014:

**Act 167 Updates** – The flood management components of the Act 167 plans (as discussed earlier) will be implemented in February 2014. The changes related to the 5,000 square foot earth disturbance threshold for stormwater management are anticipated to occur in July 2015, the specifics of which will be further discussed.

**Stormwater Management Practices** – This is an item that was briefly touched upon in 2013. PWD wants to promote the types of SMPs that best meet the Department’s overall goals and compliance requirements. PWD hopes to use the refined Guidance Manual to integrate this hierarchy into the design and review process.

**Design Criteria Updates** – PWD’s regulations are nearly 10 years old and in that time PWD has finalized the Consent Order and Agreement with EPA and PADEP. Further, what is required of PWD by State and Federal permits is not the same as what’s required of the development community. Consistency is needed between the public and private programs and as such, changes to the Water Quality requirements are being considered, including adjustments to the slow release and volume capture requirements, and an emphasis on vegetated practices.

**Incentives** - PWD recognizes that there is a need to create more incentives in the review process. Some early ideas have been discussed and will be pursued further with the committee in 2014.

**Design Toolbox** - As mentioned earlier, PWD would like to develop a suite of pre-determined details and easy to use sizing charts to aid the design engineer.

**Public-Private Partnerships** - The idea of utilizing the ROW in various ways to meet private development regulatory compliance was discussed during the September meeting. PWD further explore this policy internally and with the Committee in 2014.

**Housekeeping**

**Next Meeting**

- Green City, Clean Waters Background and Design Criteria
- March 6<sup>th</sup> at 8:30 AM

Thank you!

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The next DSC Meeting is tentatively scheduled for March 6<sup>th</sup>, 2014 at 8:30 AM. Topics to be discussed include:

- PWD's Green City, Clean Waters Program
- Design Criteria Updates

PWD will continue to provide progress updates on various activities including the ongoing Technical Analysis and the Fee In-Lieu program research.