

TOWNSHIP OF ABINGTON

(1) PUBLIC WORKS COMMITTEE

**September 28, 2015
7:00 P.M.**

CALL TO ORDER

**ROLL CALL: BOWMAN – KALINOSKI – SPIEGELMAN – ZAPPONE –
HECKER**

**Township Manager LEFEVRE
Assistant Township Manager WEHMEYER
Township Solicitor CLARKE
Township Engineer POWERS
Director of Code Enforcement MATTEO
Director of Public Works MICCIOLO
Director of W.W.T.P. WRIGLEY**

MINUTES:

Motion to approve the minutes of the August 31, 2015 Public Works Committee Meeting.

**PW1. Delaware Valley Regional Planning Commission (DVRPC)
Transportation & Community Development Initiative (TCDI)
Grant Program and Simone-Collins Landscape Architects**

DISCUSSION ONLY.

Presentation of Draft Township Master Bicycle Plan by Simone-Collins Landscape Architecture. Call on Commissioner Steven Kline.

**PW2. Settlement Agreement – Delaware River Basin Commission –
Total Dissolved Solids Penalty**

Motion to authorize the acceptance of DRBC’s “Settlement by Agreement” including authorizing the payment of \$875.00.

PW3.

**Edge Hill Road/Tyson Avenue – Flood Control/Street
Reconstruction Project – Ardsley Wildlife Sanctuary Use for
Drainage**

FOR DISCUSSION ONLY

**Call on Commissioner Dennis Zappone, Township Engineer
Michael Powers and Abington Township Shade Tree Commission
Chairperson Rita W. Stevens.**

PUBLIC WORKS

BOARD ACTION REQUEST

September 28, 2015

DATE

PW1

AGENDA ITEM NUMBER

**DEPARTMENT
MANAGER**

AGENDA ITEM

**TOWNSHIP
MANAGER**

Engineering

Delaware Valley Regional Planning
Commission (DVRPC) Transportation & Community
Development Initiative (TCDI) Grant Program
and Simone-Collins Landscape Architects

Michael LeFevre

M.E.P.

[Signature]

PREVIOUS ACTIONS

February 2, 2015 – Board approved to enter into contract with Simone Collins Landscape Architecture (in association with Traffic, Planning & Design) in an amount not to exceed \$75,000.00 (\$60,000 to be reimbursed by the Transportation & Community Development Initiative (TCDI) Master Bicycle Plan Grant and \$15,000 from contingency fund) to develop and provide the Abington Township Master Bicycle Plan; to be funded from account #06-07-301-5305.

May 8, 2014 - Board approved the attached Resolution No. 14-010, authorizing the Board of Commissioners to submit an application to the Delaware Valley Regional Planning Commission (DVRPC) Transportation & Community Development Initiative (TCDI) Grant Program.

November 13, 2014 – Board approved to authorize Township officials to accept a grant award from the Delaware Valley Regional Planning Commission (DVRPC); a Transportation & Community Development Initiative (TCDI) Grant, in the amount of \$60,000, with the Township’s matching portion of \$15,000; to be funded from Contingency.

RECOMMENDED BOARD ACTION

Discussion only. Presentation of Draft Township Master Bicycle Plan by Simone-Collins Landscape Architecture. Call on Commissioner Steven Kline.

COMMENTS

Simone-Collins has prepared a Draft Plan after fielding concerns and questions during two (2) public meetings and several committee meetings with various township personnel. This Draft Plan will be available for public viewing in the Engineer’s Office and on-line. This will allow the Commissioners and the public to review the plan for a 60-day plan review period before the plan is adopted. Simone-Collins is scheduled to present their final plan in February 2016.

PUBLIC WORKS COMMITTEE

BOARD ACTION REQUEST

September 28, 2015
DATE

PW2
AGENDA ITEM NUMBER

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Wastewater Utilities

SRW

Settlement Agreement -
Delaware River Basin Commission
Total Dissolved Solids Penalty

Michael LeFevre

ML

PREVIOUS ACTIONS

The existing Delaware River Basin Commission (DRBC) Docket No. D-1973-191 CP-4 details the effluent discharge criteria from our treatment plant into the Sandy Run Creek. A condition of this Docket (or agreement) is that the Total Dissolved Solids (TDS) concentration in our effluent discharged to the Sandy Run Creek, as measured quarterly, will not exceed 1,000 part per million (ppm). In January 2014 the test analysis result was 1,082 ppm, to which the DRBC has issued a penalty in the amount of \$875.00.

RECOMMENDED BOARD ACTION

Motion to authorize the acceptance of DRBC's "Settlement by Agreement" including authorizing the payment of \$875.00.

COMMENTS

The DRBC stated that they generally would impose a penalty of \$1,000.00 for this single violation, however,...

"WHEREAS, in the view of the Executive Director, ABINGTON has not willfully violated Commission requirements, has derived minor economic benefit from such non-willful violations, has caused limited or no known adverse impacts to water quality in connection therewith; and has cooperated in good faith with the Commission to ensure ABINGTON's future compliance with all conditions of its Docket;

WHEREAS, in accordance with Section 2.7.8 of the RPP, ABINGTON has requested settlement by agreement in lieu of any penalty proceeding; "

[PLEASE SEE FULL AGREEMENT ATTACHED along with a copy of the penalty letter.]

AGREEMENT

This Agreement entered into as of this ____ day of _____, 2015 by and between the Delaware River Basin Commission ("the Commission") and Abington Township ("ABINGTON") (collectively, "the Parties").

DELAWARE RIVER BASIN COMMISSION

WHEREAS, the Commission is a federal interstate compact agency created by concurrent legislation in the United States and the states of New York, New Jersey, Pennsylvania and Delaware (the "Delaware River Basin Compact" or "Compact");

WHEREAS, the Compact grants the Commission authority to manage the water resources of the Delaware River Basin ("Basin") and to adopt a Comprehensive Plan for the immediate and long range development and uses of the water resources of the Basin;

WHEREAS, pursuant to Section 3.8 of the Compact, no project having a substantial effect on the water resources of the Basin shall be undertaken by any person, corporation or government authority unless it shall have been first submitted to and approved by the Commission;

WHEREAS, after public notice and hearing, the Commission has adopted a Comprehensive Plan that includes Rules of Practice and Procedure ("RPP") and regulations that among other things regulate the withdrawal of groundwater and surface water within the Basin and the discharge of wastewater within the Basin;

WHEREAS the Commission approves water withdrawal and wastewater discharge projects by means of "docket" approvals and, within the Southeastern Pennsylvania Groundwater Protected Area, "protected area permits".

ABINGTON TOWNSHIP

WHEREAS, ABINGTON owns and operates a wastewater treatment plant in Upper Dublin Township, Montgomery County, Pennsylvania;

THE DOCKET

WHEREAS, on September 15, 2010 after public notice and a hearing, the Commission approved Docket No. D-1973-191 CP-4 ("the Docket") for the renewal of the existing 3.91 million gallons per day (mgd) ABINGTON wastewater treatment plant ("the WWTP");

WHEREAS, the Docket approved the WWTP's discharge to Sandy Run, a tributary of the Wissahickon Creek, a tributary of the Schuylkill River, a tributary of the Delaware River;

WHEREAS, Condition "d" of Section C.II. in the "DECISION" section of the Docket requires ABINGTON to monitor its effluent to demonstrate compliance with Commission limitations;

WHEREAS, by letter dated July 30th, 2015 (copy attached as Exhibit 1) the Commission's Executive Director provided written notice to ABINGTON that on the basis of documents submitted by ABINGTON, the Commission believed ABINGTON to be in violation of Condition "d" of the Docket;

WHEREAS, the Executive Director's July 30th, 2015 letter specified the maximum penalty that the Commission could seek from ABINGTON in accordance with Section 14.17 of the Compact and Article 7 of the Commission's RPP;

WHEREAS, in the view of the Executive Director, ABINGTON has not willfully violated Commission requirements, has derived minor economic benefit from such non-willful violations, has caused limited or no known adverse impacts to water quality in connection therewith; and has cooperated in good faith with the Commission to ensure ABINGTON's future compliance with all conditions of its Docket;

WHEREAS, in accordance with Section 2.7.8 of the RPP, ABINGTON has requested settlement by agreement in lieu of any penalty proceeding;

WHEREAS, the Executive Director has determined that settlement by agreement in lieu of a penalty is in the best interests of the Commission;

WHEREAS, in accordance with Section 2.7.8 of the RPP, ABINGTON has indicated to the Commission acceptance of the terms of this Agreement and its intention to comply with such terms, including without limitation remittance of the sum set forth herein; and

WHEREAS, ABINGTON and the Commission wish to resolve all civil penalties that the Commission has sought or could seek for ABINGTON's failure to monitor its effluent as required by Condition "d" as set forth in Exhibit 1;

NOW THEREFORE, in consideration of the mutual promises contained herein, the receipt and adequacy of which are acknowledged, and intending to be legally bound, the Commission and ABINGTON agree as follows:

1. ABINGTON agrees to pay the settlement amount of eight hundred seventy five dollars (\$875) to the Commission on or before October 30, 2015.
2. The Commission agrees to accept the sum of eight hundred seventy five dollars (\$875) as described in paragraph 1 in complete satisfaction of any and all civil penalties that the Commission could seek on account of ABINGTON's failure

between January 2014 and December 2014 to meet effluent limitations as required by Condition "d" of the Docket, as specified in Exhibit 1 hereto.

3. ABINGTON acknowledges its obligation to fully comply with all conditions of the Docket.
4. Nothing in this Agreement affects (a) the claims, if any, of any government agency other than the Commission; (b) claims for damages or natural resource damages, if any, or for injunctive relief, by any person, agency or entity; (c) claims by the Commission including without limitation claims for penalties, based on ABINGTON's past, present or future conduct other than ABINGTON's failure to comply with Condition "d" of its Docket as provided in paragraph 3 above; (d) actions or measures by the Commission to achieve compliance with applicable law; or (e) claims based on ABINGTON's failure to comply strictly with this Agreement.
5. In the event ABINGTON fails to comply strictly with this Agreement, then ABINGTON hereby consents without necessity of further proof to the entry of a judgment in the settlement amount set forth in paragraph 1, plus interest on that amount calculated in accordance with 28 U.S.C. § 1961 (calculated from October 30, 2015 for the cash payment), plus any and all attorney fees incurred by the Commission to collect such judgment. In addition, ABINGTON will pay a stipulated penalty in the amount of \$500 for each day beyond October 30, 2015 that the cash payment remains unpaid; and the Commission may seek further penalties for ABINGTON's past, present or future conduct, including without limitation its failure to adhere to effluent limitations in accordance with Condition "d" of the Docket, notwithstanding any other provisions of this Agreement.
6. The person executing this Agreement for ABINGTON represents and warrants that he/she is authorized to do so.
7. This Agreement constitutes the entire integrated agreement of the parties. No prior or contemporaneous communication or prior drafts are relevant or admissible for purposes of determining the meaning or intent of any provisions herein.
8. Modifications of this Agreement must be in writing and signed by both parties and are subject to approval by the Commission.
9. The parties agree to bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter arising prior to the date of this Agreement.
10. In accordance with Section 2.7.8 of the Rules of Practice and Procedure (18 C.F.R. § 401.98) the Executive Director hereby finds this settlement agreement to be in

the best interest of the Commission, and having consulted with the host state Commissioner, is exercising the authority delegated to him by Resolution No. 2015-3 to approve it without further process.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date and year written above:

DELAWARE RIVER BASIN COMMISSION

BY: _____

Steven J. Tambini, P.E.

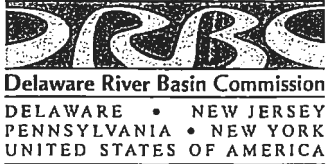
ITS: Executive Director

ABINGTON TOWNSHIP

BY: _____

Print Name: _____

ITS: _____



Delaware River Basin Commission

25 State Police Drive
PO Box 7360

West Trenton, New Jersey
08628-0360

Phone: (609) 883-9500 Fax: (609) 883-9522
Web Site: <http://www.drbc.net>

Steven J. Tambini, P.E.
Executive Director

NOTICE OF VIOLATION AND TO SHOW CAUSE

July 30, 2015

Certified Mail, Return Receipt Requested

Mr. Robert Leber
Abington Township
1000 Fitzwater Road
Roslyn, PA 19001

RE: Abington Township, D-1973-191 CP-4

Dear Mr. Leber:

This Notice is to inform you that on the basis of documentation submitted by Abington Township ("Abington") via email on March 4, 2015, the Delaware River Basin Commission ("DRBC" or "Commission") believes Abington has violated Condition "d" of Section C.II. of Docket No. D-1973-191 CP-4 ("the docket") by exceeding the effluent limitation for Total Dissolved Solids (TDS), as indicated in the table below:

Monitoring and Reporting Results Due to DRBC

Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2014	X			

X = Effluent Limit Exceedence for TDS

In accordance with the above table, Abington exceeded the effluent limitation once during the period from January through December 2014. Each exceedance is deemed to be a separate offense for which Abington may be subject to a penalty of up to \$1,000 in accordance with Section 14.17 of the *Delaware River Basin Compact* ("Compact"). The maximum penalty for the cited violation is thus \$1,000.

As explained in a similar notice issued to Abington in October 2013, the Commission generally views failure to meet the Commission monitoring and reporting conditions as required in the docket's Effluent Table A-2 in Section A.4.d, as serious docket violations because they have the potential to result in violations of stream quality objectives. First-time docket condition violations for effluent monitoring that have limited adverse environmental impact and where other mitigating factors are present generally carry a recommended settlement amount of \$251 per occurrence – the lower limit of the "Moderate" range in the Commission's Civil Penalty Matrix (see Resolution No. 2009-13 attached). However, the documented exceedance in 2014 is not Abington's first failure to meet docket conditions. To resolve previous alleged

Mr. Robert Leber
Abington Township
July 30, 2015
Page 2

violations of DRBC for monitoring, Abington entered into a settlement agreement with the Commission in March 2014, in connection with which it paid the sum of \$1,757. This history has the effect of elevating the recommended settlement amount to the "Severe" classification for the exceedance in the first quarter in 2014.

Accordingly, in this instance I am recommending to the Commission a settlement sum of \$875 per occurrence, or a total of \$875. Procedurally, two alternatives are available for resolving this matter: (1) additional process, including a hearing before the Commission; and (2) resolution by means of settlement in lieu of a penalty. Each is described below.

Hearing to Show Cause. Absent resolution of this matter by means of a settlement, consistent with Section 2.7.2 of Article 7 of the Commission's *Rules of Practice and Procedure* ("RPP") discussed below, I am hereby requiring Abington to show cause before the Commission why a penalty should not be assessed in accordance with the provisions of Article 7 of the RPP and Section 14.17 of the Compact. Should no settlement be reached beforehand, you are required to appear and respond on September 15, 2015 at the Commission's public hearing scheduled for that date. If you believe this notice has been issued in error, you may so explain, either by writing in advance of the hearing date, or by addressing the Commission during the public hearing.

In addition, as provided in Section 2.7.3 of the RPP, Abington may submit in writing at its appearance on September 15, 2015 or at any earlier time information that it desires to make available to the Commission before the Commission acts. Abington is required to be prepared during its appearance to respond to questions by the Commission or its staff or to any statements submitted by persons affected by the alleged violations. Your advance submissions and remarks offered during the hearing will be among the information considered in determining whether violations have occurred that justify imposition of a penalty and, if so, the amount of any penalty.

Please submit all information to the attention of Chad Pindar, Supervisor, Watershed Planning & Compliance Section, Planning & Information Technology Branch, Delaware River Basin Commission, 25 State Police Drive, P.O. Box 7360, West Trenton, New Jersey 08628-0360 or chad.pindar@drbc.state.nj.us, and reference Docket No. D-1973-191 CP-4. For purposes of coordination, or in the event you have questions about this process, Mr. Pindar can be reached at 609-883-9500, ext. 268.

Alternative Approach – Settlement in Lieu of Penalty. Section 2.7.8 of the RPP provides for settlement by agreement in lieu of penalty. The maximum penalty for the cited violation is \$1,000. If Abington wishes to settle this matter promptly without further submissions or proceedings and assures the Commission of its future compliance, I will recommend to the Commissioners that they accept the sum of \$875 set forth above as a settlement in lieu of a penalty.

Mr. Robert Leber
Abington Township
July 30, 2015
Page 3

Abington may submit to the Commission and/or the staff in advance of the September 15, 2015 hearing date statements or evidence that it believes warrant settlement for a smaller sum. However, I will not recommend a smaller amount in the absence of extenuating circumstances that can fairly be characterized as extraordinary.

If you wish to proceed with settlement, please inform Mr. Pindar of this preference, and Commission counsel will draft appropriate settlement documents. I note that any settlement agreement will be subject to the review and approval of the Commissioners. Unless settlement is reached, or in the event of unforeseen circumstances I or the Commission has issued to Abington a written notice of postponement of the scheduled hearing, Abington will be expected to appear on September 15, 2015 or face a determination by the Commission in its absence.

Thank you for your continued cooperation and partnership in protecting the shared water resources of the Delaware River Basin.

Sincerely,

A handwritten signature in cursive script, appearing to read "Stambini".

Steven J. Tambini, P.E.
Executive Director

c: DRBC Commissioners
Kenneth J. Warren, Esquire, Warren Glass LLP, DRBC General Counsel

Enclosure

A RESOLUTION to establish guidance to aid DRBC and the regulated community in determining the appropriate financial penalty or settlement in lieu of penalty for proven or suspected violations, respectively, of the *Delaware River Basin Compact* or rules, regulations or orders of the Commission.

WHEREAS, Section 14.17 of the *Delaware River Basin Compact* (“the *Compact*”) provides that a person, association or corporation who violates or attempts or conspires to violate a provision of the *Compact* or a rule, regulation or order of the Commission may be liable for a penalty of as much as \$1,000 for each offense and \$1,000 per day for a continuing violation, attempt or conspiracy to be fixed by a court of competent jurisdiction; and

WHEREAS, Section 2.7.8 of Article 7 of the Commission’s *Rules of Practice and Procedure* (RPP) provides that a possible violator may request settlement of a penalty proceeding by agreement and further provides that if the Executive Director determines that settlement in lieu of a penalty is in the best interest of the Commission the Executive Director may submit to the Commission a proposed settlement agreement in lieu of a penalty; and

WHEREAS, Section 2.7.6 of the RPP provides a list of factors that the Commission will consider in determining the amount of any penalty that the Commission could ask a court to impose or that the Commission might seek through settlement; and

WHEREAS, these factors include (but are not limited to): whether previous violations have occurred, whether the violation was willful and deliberate; whether the violation caused adverse environmental consequences and the extent of any harm; and whether the failure to comply was economically beneficial to the violator; and

WHEREAS, since 1996, DRBC’s sister agency the Susquehanna River Basin Commission (SRBC), which operates under a compact that is nearly identical to DRBC’s and contains an identical “Penal Sanction” clause, has effectively applied an “SRBC Civil Penalty Matrix” that correlates penalty or settlement ranges of \$50-\$250 for violations deemed minor, \$251-\$750 for violations deemed moderate, and \$751-\$1,000 for violations deemed severe, with five factors – namely, previous violations, intent, adverse environmental impacts, cooperation and economic benefit – as guidance in determining a recommended penalty or settlement amount; and

WHEREAS, in late November of 2009, the Commission published notice that it would consider adopting a “DRBC Civil Penalty Matrix” modeled after the SRBC matrix as guidance for the Commission and the basin community in determining the amount of the penalty or settlement in lieu of penalty that the Commission deems appropriate based upon consideration of the five factors listed above; and

WHEREAS, the Commission held a public hearing on the proposed “DRBC Civil Penalty Matrix” on December 9, 2009; and

WHEREAS, the Commission has determined that the proposed “DRBC Civil Penalty Matrix” constitutes useful guidance in determining the appropriate amount of a penalty or settlement in lieu of penalty; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission that:

1. The attached “DRBC Civil Penalty Matrix” is hereby adopted as guidance to aid the Commission and the basin community in determining the appropriate amount of a penalty or settlement in lieu of penalty in accordance with Section 14.17 of the *Delaware River Basin Compact* and Article 7 of the *Rules of Practice and Procedure*.
2. The attached document is intended to supplement existing requirements; it does not constitute an adjudication or a regulation and shall not affect regulatory requirements. The attached document is a policy statement which establishes a framework within which the Commission will exercise administrative discretion in the future; however the Commission reserves the discretion to deviate from this policy statement if circumstances warrant.

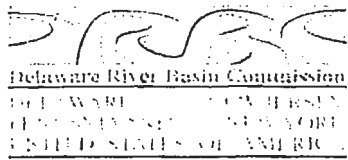
/s/ Katherine E. Bunting-Howarth

Katherine E. Bunting-Howarth
Acting Chairwoman *pro tem*

/s/ Pamela M. Bush

Pamela M. Bush, Esquire, Commission Secretary

ADOPTED: December 9, 2009



Delaware River Basin Commission
25 State Police Drive
PO Box 7360
West Trenton, New Jersey
08628-0360
Phone: (609) 883-9500 Fax: (609) 883-9522
Web Site: <http://www.drbc.net>

Carol R. Collier
Executive Director

Robert Tudor
Deputy Executive Director

DRBC CIVIL PENALTY MATRIX

Penalties per Day per Violation*

In accordance with the Section 2.7.8 of the *Rules of Practice and Procedure*, the Commission may enter into a settlement with a suspected violator in lieu of seeking a judge-imposed penalty. The Penalty Matrix is intended to guide the DRBC staff in recommending a settlement amount to the Commissioners and if necessary, a penalty amount to the court.

	Minor: \$50-\$250	Moderate: \$251-\$750**	Severe: \$751-\$1,000**
Previous Violations	No previous violations	One previous violation	Multiple previous violations
Intent	Non-willful, non-negligent	Non-willful, negligent	Willful
Adverse Environmental Impacts	No adverse environmental impacts	Limited adverse environmental impacts	Major adverse environmental impacts
Cooperation	Excellent cooperation/quick response	General cooperation and some delay in compliance	Little or no cooperation/slow response
Economic Benefit	No economic benefit	Minor economic benefit	Substantial economic benefit relative to cost of compliance

* §14.17 of the *Compact* provides that "... in the event of a continuing offense each day of such violation, attempt, or conspiracy shall constitute a separate offense." Section 14.17 provides that violators "shall be liable to a penalty of not less than \$50 nor more than \$1,000 to be fixed by the court."

** Satisfying any single criterion in either the "Moderate" or "Severe" category places a violation in the higher category.

ADDITIONAL GUIDANCE

The phrase “**limited adverse environmental impact**” means that the injury to flora and fauna and/or the impairment of habitat is small and/or temporary; and that the risk or actual harm to public health, safety or welfare is small.

The phrase “**major adverse environmental impact**” means that the injury to flora and fauna is substantial, such as a large fish kill or widespread or long-term impairment of habitat; or that the risk or harm to public health, safety or welfare is widespread, long-term, or severe.

PUBLIC WORKS

BOARD ACTION REQUEST

September 28, 2015
DATE

PW3
AGENDA ITEM NUMBER

DEPARTMENT

AGENDA ITEM

TOWNSHIP MANAGER

Engineering

M. E. P.

Edge Hill Road/Tyson Avenue
Flood Control/Street Reconstruction Project
Ardsley Wildlife Sanctuary use for drainage

Michael LeFevre

[Signature]

PREVIOUS ACTIONS

December 11, 2014 - Board approved Pennoni Associates price proposal for Supplement 'C' of the above reference agreement in the amount of \$684,451.67 which includes services for Part II Final Design. A time extension is required until May 31, 2018 to complete this work.

February 12, 2015 -

1. Board approved Rudolph Clarke, LLC price proposal in the amount of \$769,660, for Supplement "C" of the Edge Hill Road/ Tyson Avenue Street Reconstruction Project right-of-way acquisitions.
2. Board approved Resolution No. 15-011, to add Rudolph Clarke, LLC for legal, appraisal and title services relating to the Edge Hill Road / Tyson Avenue Flood Control/Street Reconstruction Project

March 12, 2015 – Board approved South East Realty Transfer, LLC to perform the required title reports; approved Coyle, Lynch & Co. to prepare the damage estimates and appraisal reports; approved Rudolph Clarke, LLC to include all of the other remaining services, including the negotiations with property owners and preparation of all settlement packages and approved Resolution No. 15-017 for right-of-way acquisitions

RECOMMENDED BOARD ACTION

For discussion – Call on Commissioner Dennis Zappone, Township Engineer Michael Powers and Abington Township Shade Tree Commission Chairperson Rita W. Stevens

COMMENTS

The Shade Tree Commission is concerned with the use of Ardsley Wildlife Sanctuary for drainage purposes. Their concern is the loss of trees for the construction of a new swale through the property. Their position is represented in the attached document.

The consensus of the Committee is not to delay the project, therefore; the design swale through the Sanctuary should be allowed by the Board. In addition, there would be additional costs to the Township to change the design and further delay of the project.

From: Rita Stevens <abingtontrees@gmail.com>
Sent: Wednesday, September 23, 2015 9:41 PM
To: Michael Powers
Cc: Glen Stevens
Subject: Edgehill Tyson Reconstruction Drainage Design/ Ardsley Wildlife Sanctuary- September 16 Discussion Highlights

Hi, Michael,

I thought it helpful to summarize our September 16 discussion concerning stormwater management design for the Edgehill Tyson (EHT) project as it concerns the Ardsley Wildlife Sanctuary (AWS) property.

SUMMARY:

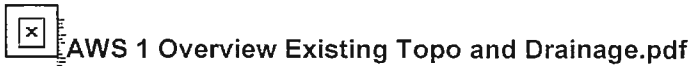
Based on analysis discussed below, the Abington Shade Tree Commission in conjunction with the Abington EAC, Wissahickon Watershed Association, foresters from Penn State Extension, and biologists from PA Game Commission and Western Conservancy concluded that the best course of action for drainage storm water sourced from the center ~24 acres of the EHT reconstruction project is to direct it around AWS through the Ardsley Cemetery area containing the existing channel.

Clarifying Note: It is understood that waters ponding along the West Drive levee may enter AWS and exit through existing culverts. However all conveyance channels, BMPs and supporting construction must be outside of AWS to protect sensitive and special value areas.

As you explained, this will require funds to establish right-of-way with the Ardsley Cemetery. This will require requesting necessary funding from the state as well as required 20% match from the township. It is sufficiently early in the project that this can be accomplished in parallel with other right-of-way acquisitions.

BACKGROUND: 4 MAPS THAT GLEN PRESENTED TO SUPPORT OUR DISCUSSION. (AWS1, AWS2, AWS5, AWS7)

AWS1: OVERVIEW OF EXISTING TOPOGRAPHY AND DRAINAGE FEATURES



This map provides and orientation to the project area. Map features are:

1. the area topography (light orange lines)
2. estimated size of drainage areas associated with the Edgehill Tyson reconstruction project ; 3 sections- 15, 24 and 56 acres. (pink shaded areas)
3. current storm sewer overlay (dark orange lines)
4. existing watercourses (blue lines)

AWS2: DETAILED EXISTING CONDITIONS BMP 5.1 PROTECT SENSITIVE AND SPECIAL VALUE AREAS



This map provides a detailed view of environmentally sensitive areas. These areas include:

1. riparian areas in need of protection (orange shading)
2. high quality forest (dark green shading)
3. existing and proposed wetland areas as mapped by PNHP professional Betsy Leppo in June 2015 (bright green shading)

Also shown on this map are the proposed piping and culvert locations for the EHT reconstruction project (dark orange lines)

We did not identify any issues associated with two of the project areas:

- the former dam area near West Drive, or
- the existing detention feature near East Drive


We did identify issues with any plans to introduce stormwater into the high quality forested area from the middle EHT drainage area:

- the shallow fragipan soil will not infiltrate water well

Betsy Leppo suggested the following BMP's for which we can get credits

- do not disrupt the existing forested areas
- extend and enhance the wetland areas within the high quality forest, and offer this as an educational feature as part of the AWS nature trails

AWS5: DETAILED PROPOSED PROJECT CONDITIONS

 AWS 5 Detailed Proposed Stormwater Features.pdf

This map shows details of the proposed EHT reconstruction project conditions. It includes

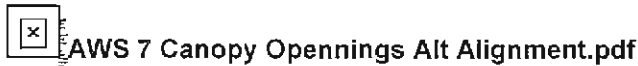
1. the originally proposed grass swale to drain approximately 24 acres
2. the pipe to be constructed underneath West Drive and the associated spreader
3. drainage feature associated with the existing retention feature to drain approximately 56 acres
4. existing storm drain layout

We concluded that it is not feasible to introduce stormwater from the 24-acre drainage area into the forested area of the Ardsley Wildlife Sanctuary

- Per appendix G of the PA Soil and Erosion BMP manual, the maximum flow that a level spreader can handle in a forest (1 cfs/ 64ft) is 20 times less than the 100 yr flow.

- The fragipan nature of the underlying soil will not sufficiently infiltrate
- Sheet flow distance in a forest (25 to 50 ft) is much less than in a flat field (150 ft) necessitating 10 -12 check dams across the basin which would be an unacceptable disturbance to the basin.
- the forest simply cannot handle this volume of water
- there is an opportunity to get credit for BMPs as listed above

AWS7: CANOPY OPENINGS FOR ALTERNATE STORMWATER ALIGNMENT



This map shows the limited canopy openings within the Ardsley Wildlife Sanctuary

We concluded that any design to introduce of stormwater from the 26-acre drainage area into the forest is not acceptable.

- it would require either an inordinate number of check dams or a hard channel of 20 foot wide or greater,
- there would be severe compaction associated with construction
- it would essentially destroy high quality forested area
- it would essentially convey, but not infiltrate stormwater

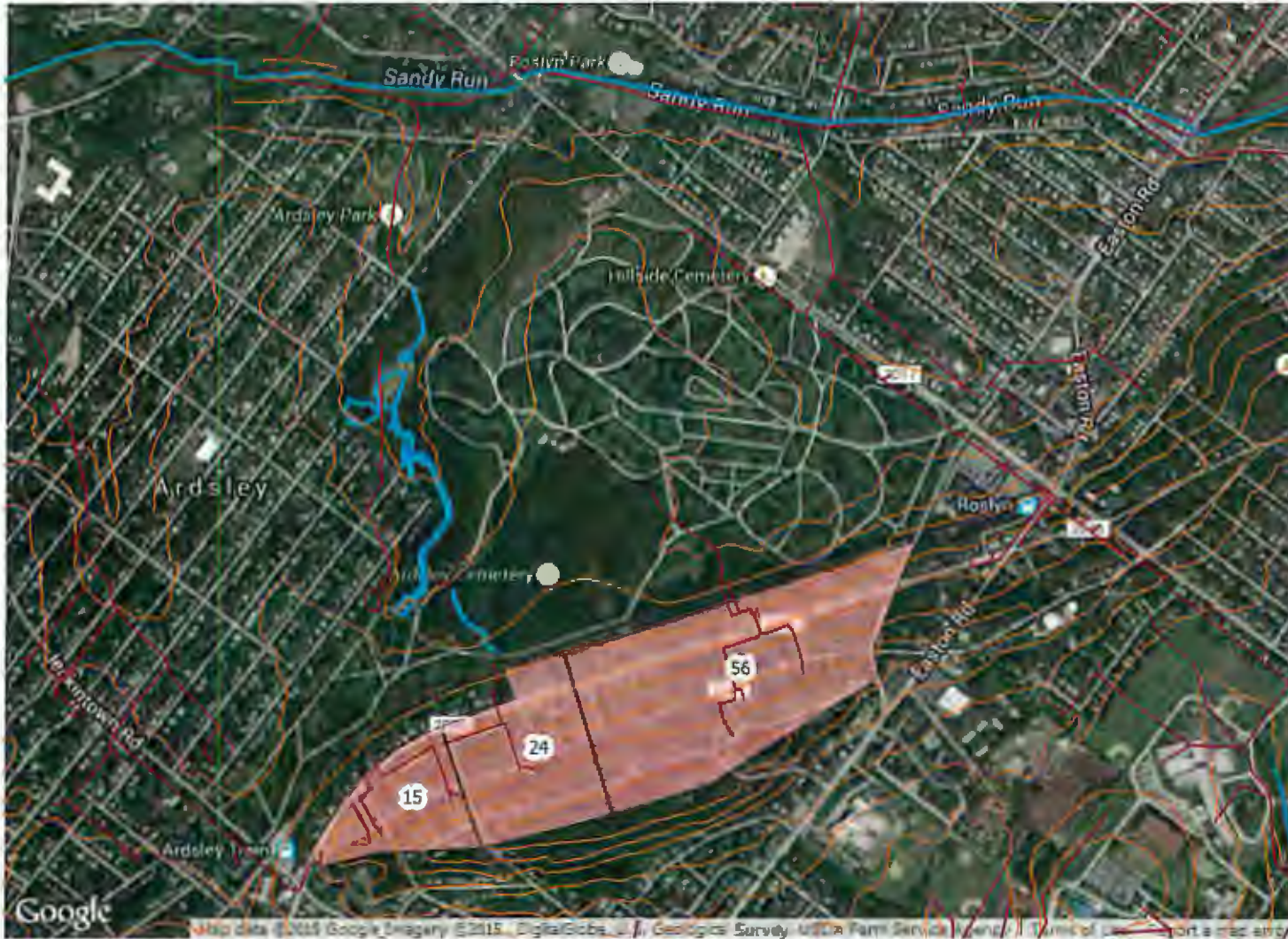
We concluded that the desired course of action is to pursue a right-of-way with the Ardsley Burial Park

Thank you for a thoughtful and collaborative discussion. Regards, Rita

--
 Rita W. Stevens, Chair
Abington Township Shade Tree Commission
 a volunteer group commissioned by Abington Township

education and outreach to plant and preserve trees
<http://www.facebook.com/AbingtonTrees>

AWS 1 Overview of Existing Topography and Drainage Features



Note:
Map presents an overview of existing site topography and drainage features.

Legend

- contours
- streams
- stormsw
- AWS Existing Stream Channel
- New drainage area

Data Sources:

Aerial Photo from Google Maps 2015

Storm Sewer, streams and topo contour GIS locations provided by Abington Township



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AWS 2 Detailed Existing Conditions BMP 5.1 Protect Sensitive and Special Value Areas



Notes:
This map shows detailed existing conditions along with Primary and Secondary Conservation Areas.

Legend

- Ardsley_ponds_pools
- stormsw
- Primary Conservation Area
- AWS Existing Stream Channel

Data Sources:

Drainage Divides and Flow Paths from AWS Land Management Plan 2007

Stormwater GIS coverage from Abington Township

Ardsley Ponds and Pools from Betsy Leppo site visit



100 0 100 200 300 400 ft



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AWS 5 Detailed Proposed Project Conditions



Notes:
 This map show details proposed stormwater project conditions for the three proposed projects within AWS.

Legend

- Ardsley_ponds_pools
- stormsw
- Primary Conservation Area
- AWS Existing Stream Channel
- GrassSwalePerm
- GrassSwaleTemp
- New drainage area

Data Sources:

Land Use, Drainage Divides, Flow Paths from AWS Land Management Plan 2007

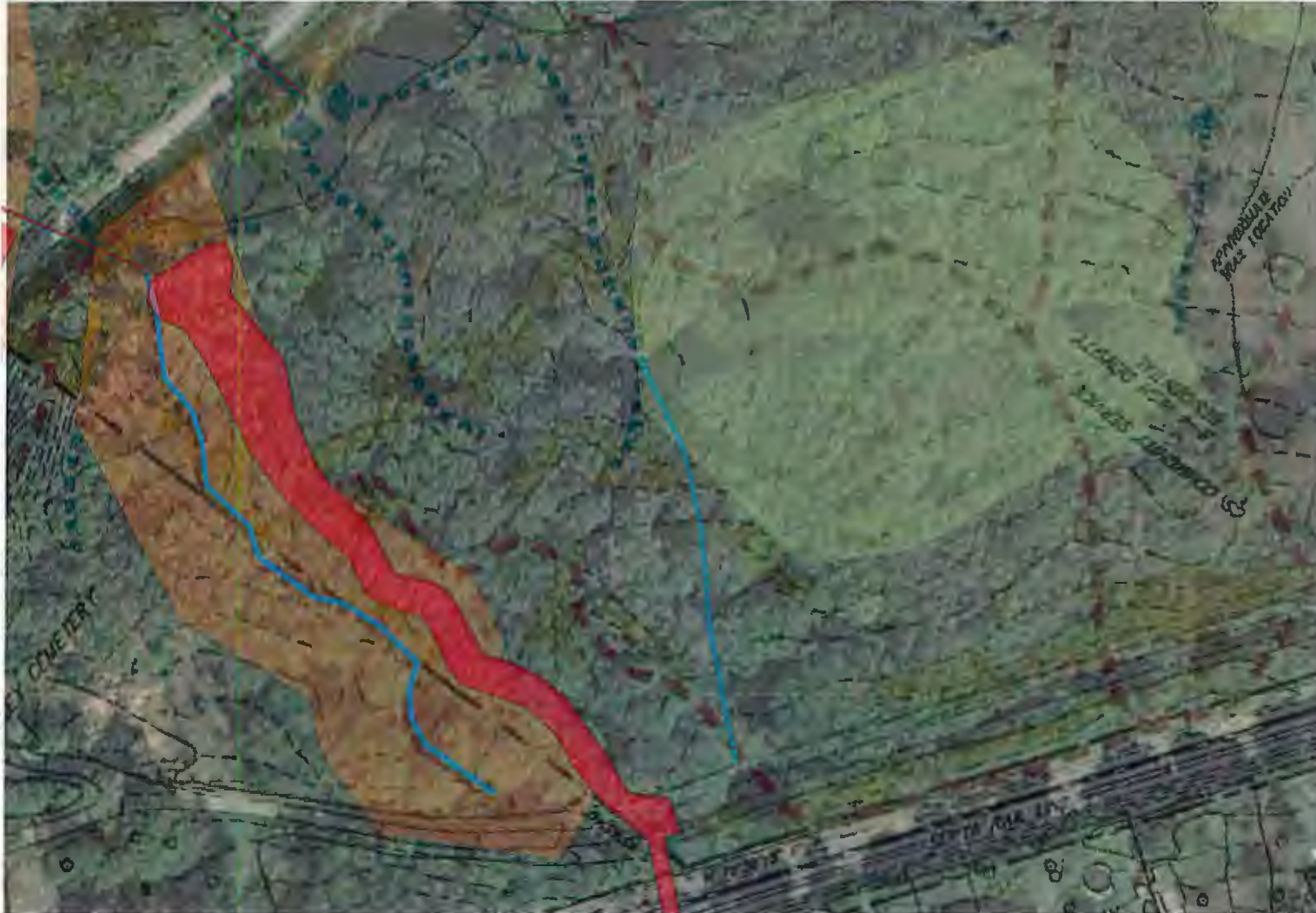
Stormwater GIS coverage from Abington Township

Proposed Projects estimated from available



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AWS 7 Canopy Openings for Alternate Stormwater Channel Alignment



Notes:
This map show canopy openings which represent large treeless areas within the forest. Utilization of these areas along flowpaths minimizes impacts to the the forest for alternate stormwater channel alignments

Legend

- stormsw
- Ardsley_ponds_pools
- Riparian Area 100ft/side
- AWS Existing Stream Channel
- GrassSwalePerm
- Alternate Channel alignment

Red Dashes are drainage divides

Blue Dashes are flow paths

Data Sources:
Google Maps 2015 Aerial

Drainage Divides and Flow Paths from AWS
Land Management Plan 2007

Stormwater GIS coverage from Abington
Township



100 0 100 200 ft



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