# East Goshen Township Pipeline Task Force Meeting Agenda

Thursday, June 10, 2021 6:30 PM – Tele Conference Dial in Number: (929) 205-6099 Access code: 890 8477 4350 # #

During this tele-conference Pipeline Task Force Meeting, public comment will be handled as follows:

- The public will be muted during the meeting when the Task Force is talking.
- The public will be given an opportunity to comment and ask questions during the Public Comment period.
- Participants wishing to comment can hit \*9 to raise their hand.
- Participants must state their name and must speak one at a time.
- 1. Call to Order
- 2. Pledge of Allegiance / Moment of Silence
- 3. Ask if anyone is recording the meeting.
- 4. Approval of Minutes May 13, 2021
- 5. Public Comment
- 6. Chairperson's Report
- 7. Reports
  - a. Legislative Update
- 8. Old Business
  - a. Discuss Planning Commission Pipeline Awareness Ordinance
- 9. New Business
  - a. Boot Road Pumping Station leak
  - b. Discuss Noise/Construction draft ordinances as they pertain to pipeline nuisances
  - c. Chester County Vulnerability Assessment of Hazardous Liquid and Gas pipelines
- 10. Liaison Reports
- 11. Any Other Matter
- 12. Correspondence
- 13. Adjournment

1 2		PIPELINE TASK FORCE WORKSHOP THURSDAY, May 13, 2021			
3	TELE CONFERENCE				
4		DRAFT MINUTES			
5					
6	Members	s Present:			
7	254 1.44	oline Hughes, Vice Chair Bill Wegemann; Members: Jim Christenson, Jeannine			
8 9		vo, Judi DiFonzo, Christina Morley, Gerry Sexton			
10	Others P	resent			
11	(A)	ney, Township Supervisor; Rick Smith, Township Manager; Lauren McGrath			
12		n Conservation			
13	***********				
14	COMMON	ACRONYMS:			
	ACOE	Army Core of Engineers			
	BI&E	Bureau of Investigation and Enforcement			
	BOS	Board of Supervisors			
	CCATO	Chester County Association of Township Officials			
	CCPC	Chester County Planning Commission			
	DCNR DEP	Department of Conservation and Natural Resources Department of Environmental Protection			
	EGT	East Goshen Township			
	EGSEA	East Goshen Safety and Environmental Advocates			
	EGSEA East Gosnen Sajety and Environmental Advocates  ET Energy Transfer Company				
	FOI	Freedom of Information			
	HDD	Horizontal Directional Drilling			
	IR	Inadvertent Return			
	ME1	Mariner East 1			
	ME2	Mariner East 2			
	PHMSA	Pipeline Hazard Materials and Safety Administration			
	PUC	Public Utility Commission			
4 -	TF	Task Force			
15	Call to On	Jan C Diadaa af Allaniaa a			
16		der & Pledge of Allegiance			
17	Caroline C	called the meeting to order at 6:30 p.m. and led the Pledge of Allegiance.			
18	N/	- f Cil			
19		of Silence			
20		called for a moment of silence for those who lost their lives for our country, those			
21	serving in	the U.S. Armed Forces, those battling the pandemic.			
22					
23	Recordin				
24	Caroline a	announced that the meeting is recorded to the cloud via Zoom meeting settings.			
25					
26		l of Minutes			
27	The minutes from April 8, 2021, were unanimously approved as amended.				

#### **Public Comment - None**

## <u>Chairperson's Report - None</u>

#### **Old Business**

David announced that the Chester County Planning Commission comments on the Planning Commission's Pipeline Awareness Ordinance were distributed. Caroline will forward to the TF and will discuss at the next meeting.

### **New Business**

## **Chester County District Attorney**

Caroline explained that the Chester County District Attorney's Office filed a civil complaint on behalf of the Commonwealth of Pennsylvania against Energy Transfer. The complaint is seeking to stop or reduce the number of nuisances that risk the health, safety and welfare of Chester County residents regarding activities connected with the ME Pipeline.

Christina explained that she previously pursued a public nuisance ordinance in EGT.

Caroline made the motion that in light of the recent consent decree by the Chester County District Attorney, Deb Ryan, and given the proposed pipeline and other infrastructure projects underway and proposed in East Goshen Township, the PTF asks the BOS to revisit the current public nuisance ordinance as it relates to pipeline construction, maintenance and operations and furthermore to identify any gaps in the current ordinance that would need to be addressed so the Township can utilize any and all municipal enforcement and/or mitigation powers in order to protect the health, welfare and safety of our citizens. Bill seconded. The motion passed unanimously.

## Willistown Conservation Trust Water Sampling Program

Lauren McGrath, Director of the Watershed Protection program at the Willistown Conversation Trust, introduced herself. Locally, the program monitors the quality and health of the waterways using different parameters. There are 3 locations in East Goshen Township that collect samples; 2 in Historic Goshenville and 1 in Ashbridge Preserve.

Lauren explained that data has been collected since 2018 (with a 9-month data gap due to COVID). The program's goal is to gather an understanding of what is happening in sensitive water ways. Noting the proximity of the pipeline to Ridley creek, she offered to help or collaborate with the TF.

Bill asked if there are noticeable differences in the water that could be attributed to the pipeline. Lauren responded that a report on the general wellness of the waterway will be complete by this summer. The report may show degradation of the water wellness, but the cause will not be clearly determined.

Christina stated that a monitor station at the Paoli Pike site would be beneficial. The importance to protect the headwater within the water shed was stressed.

1 Gerry added that water sampling could indirectly assist in finding problems caused from 2 the pipeline by examining the effects on the geology. 3 4 Christina queried the TF for interest in attending a workshop and/or building a monitor so 5 that it can be placed near the Adelphia site. 6 7 Liaison Reports 8 Jim reminded the TF to take the survey from the Futurist Committee. 9 10 **Any Other Matter** The Pipeline TF agreed to meet virtually for June, July and August. The TF will reevaluate in 11 12 person vs. virtual meetings in August for the fall of 2021. 13 **Adjournment** 14 The meeting was adjourned at 7:55 p.m. 15 16 17 The next meeting is Thursday, June 10, 2021, at 6:30 pm via Zoom. 18 19 Respectfully submitted, 20 Susan D'Amore 21

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#### **EAST GOSHEN TOWNSHIP**

### **CHESTER COUNTY, PENNSYLVANIA**

ORDII	NANCE	NO. 202	21		

AN ORDINANCE AMENDING THE EAST GOSHEN TOWNSHIP CODE, CHAPTER 205 TITLED "SUBDIVISION AND LAND DEVELOPMENT" SECTION 205-7 TITLED "DEFINITIONS" TO ADD A DEFINITION FOR HAZARDOUS LIQUID PIPELINE AND NATURAL GAS TRANSMISSION PIPELINE AND TO ADD A NEW SECTION 205-40.1 TITLED "PIPELINE AWARENESS STUDY"; AMENDING CHAPTER 240 OF THE EAST GOSHEN TOWNSHIP CODE, TITLED "ZONING" SECTION 240-31.B(3) AND (7) TO REQUIRE A PIPELINE AWARENESS STUDY TO BE SUBMITTED AS PART OF CERTAIN CONDITIONAL USE APPLICATIONS.

BE IT ENACTED AND ORDAINED by the Board of Supervisors of East Goshen Township pursuant to the Board's power to adopt ordinances necessary to secure the health, safety and welfare of the citizens of the Township pursuant to Section 1506 of the Second-Class Township Code, 53 P.S. §66506, and pursuant to the authority in the Pennsylvania Municipalities Planning Code, 53 P.S. § 10101 *et seq.*, the Board enacts and ordains as follows:

**SECTION 1.** Chapter 205 of the East Goshen Township Code, titled, "Subdivision and Land Development", Section 205-7 titled "Definitions" shall be amended by adding the following new definitions:

**Hazardous Liquid Pipeline** - any pipeline designed for transmission of a hazardous liquid as regulated by CFR Title 49, Section 195.2.

**Natural Gas Transmission Pipeline** – any transmission pipeline regulated by CFR Title 49, Section 192.3.

<u>SECTION 2.</u> Chapter 205 of the East Goshen Township Code, titled, "Subdivision and Land Development" shall be amended to add a new Section 205-40.1 titled "Pipeline Awareness Study" which shall provide as follows:

#### "§ 205-40.1 Pipeline Awareness Study.

A. Applicability. A Pipeline Awareness Study ("Pipeline Study), prepared by and sealed by a professional engineer licensed in the Commonwealth of Pennsylvania shall be submitted to the Township, with the following submissions:

- (1) As part of a preliminary plan submission for any land development application where the tract proposed to be developed is located within 660 feet of the centerline of any Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline.
- (2) As part of a tentative plan submission for any application for a planned residential development (PRD) where the tract proposed to be developed is located within 660 feet of the centerline of any Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline.
- (3) As part of a conditional use application for a principal use of property where the tract proposed for the principal use is located within 660 feet of the centerline of any Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline:
  - (a) Any residential development.
  - (b) Township park.
  - (c) Place of worship or religious institution, excluding hospitals, sanitariums, penal or corrective institutions.
  - (d) Public or private primary or secondary school.
  - (e) Publicly owned recreation.
  - (f) Public utility facility.
  - (g) Private recreation facility.
  - (h) Church or place of worship.
  - (i) Nursing home or personal-care center.
  - (j) Life-care center.
  - (k) Business and professional offices.
  - (I) Gasoline service station, which may include the sale of gasoline as an accessory use.
  - (m) Shopping center.
  - (n) Day care, child or adult.
  - (o) Hotel or motel.
  - (p) Mobile/manufactured home park in accordance with § 205-64B of this Chapter 205.
  - (q) Medical facility for patient care that is supplementary to normal hospital services, but not including a hospital.
  - (r) Hospital.
  - (s) Cyber charter school campus
  - (t) Conference center.
  - (u)Treatment center.
  - (v) Exercise/health/tennis clubs.
  - (x) Fire or ambulance station.

- B. Contents. The Pipeline Study shall contain the following information:
  - (1) Background information.
    - (a) A general description of the tract subject to the application, including lot area, topography, watercourses, vegetation, landscaping, existing improvements including buildings, structures, driveways, parking, loading areas, fire hydrants, surrounding uses, etc.
    - (b) A specific description of the Hazardous Liquid Pipelines and Natural Gas Transmission Pipelines located within 660 feet of the tract which is the subject of the proposed land development, PRD or conditional use which shall include:
      - [1] Size of pipeline.
      - [2] Number of pipelines.
      - [3] Width of easement.
      - [4] Materials transported through the pipeline.
  - (2) Applicant's engineer shall prepare an assessment of the potential impacts to health, safety and welfare of the occupants and buildings associated with the proposed land development, PRD or conditional use due to the proximity of the Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline.
  - (3) Measures that the Applicant may implement to mitigate the potential impacts to the health, safety and welfare of the occupants and buildings associated with the proposed land development, PRD or conditional use, including but not limited to: design alternatives, reconfiguration of buildings, access driveways, interior driveways and parking lots, additional means of access, additional and/or enhanced fire protection measures and devices, enhanced emergency communication systems, use of specific building materials, increased setbacks, buffering, landscaping, conservation of existing vegetation, and any other appropriate measures permitted under the terms of this chapter and other Township ordinances.
- C. As part of the review of the preliminary plan submission, tentative PRD plan submission or conditional use submission for the uses specified in §205-40.1.A(3) above, the Planning Commission and Board shall consider the contents of the Pipeline Study and evaluate if the respective plans appropriately address the potential impacts to the health, safety and welfare of the occupants and buildings associated with the Hazardous Liquid Pipelines and Natural Gas Transmission Pipelines located within 660 feet of the tract which is the subject of the proposed land development, PRD or conditional use. The Planning Commission and Board may seek input from the Emergency Management Coordinator, Fire Marshall, Fire Chief, utility providers, Township Authorities, Boards and Commissions or any other person or entity with experience or knowledge of Hazardous Liquid Pipelines and Natural Gas Transmission Pipelines. As a result of such review, the Planning Commission and Board may require the

Applicant to revise its plans to mitigate potential impacts to the health, safety and welfare of the occupants and buildings caused by the proximity of the Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline to the proposed development, PRD or use.

D. In addition to submitting the Pipeline Study, in cases where there is a Hazardous Liquid Pipeline or Natural Gas Transmission Pipeline on or under the tract to be developed for the applications referred to in §205-40.1A(1), (2) or (3), the applicant shall provide to the operator of the Hazardous Liquid Pipeline and Natural Gas Transmission Pipeline a copy of the plans and applications filed with the Township. The applicant shall request the pipeline operator(s) to review the proposed development plans and submit written verification that the pipeline operator(s) has received and reviewed the development plans and provided comments concerning the impact the development will have upon the integrity of the pipeline(s). The applicant shall submit to the Township all comments received from the operator or a notice from the operator indicating that the operator has no comments. If the operator does not respond within 30 days after being contacted and provided information by the applicant, the Township may waive the requirement for written verification.

<u>SECTION 3.</u> Chapter 240 of the East Goshen Township Code, titled, "Zoning" shall be amended by amending Section 240-31.B(3) to add the following sentence at the end of the existing language:

"In addition to the development plans, an applicant shall submit a Pipeline Awareness Study for the following uses when such uses are the principal use of a tract and are permitted as a conditional use:

- (a) Any residential development.
- (b) Township park.
- (c) Place of worship or religious institution, excluding hospitals, sanitariums, penal or corrective institutions.
- (d) Public or private primary or secondary school.
- (e) Publicly owned recreation.
- (f) Public utility facility.
- (g) Private recreation facility.
- (h) Church or place of worship.
- (i) Nursing home or personal-care center.
- (j) Life-care center.
- (k) Business and professional offices.
- (I) Gasoline service station, which may include the sale of gasoline as an accessory use.
- (m) Shopping center.
- (n) Day care, child or adult.
- (o) Hotel or motel.
- (p) Mobile/manufactured home park in accordance with § 205-64B.

- (q) Medical facility for patient care that is supplementary to normal hospital services, but not including a hospital.
- (r) Hospital.
- (s) Cyber charter school campus
- (t) Conference center.
- (u) Treatment center.
- (v) Exercise/health/tennis clubs.
- (w) Fire or ambulance station.

<u>SECTION 4.</u> Chapter 240 of the East Goshen Township Code, titled, "Zoning" shall be amended by amending Section 240-31.B(7) to add the following sentence at the end of the existing language:

"The Board shall require an applicant to submit a Pipeline Awareness Study for the uses specified in Section 240-31.B(3) above."

**SECTION 5.** Severability. If any sentence, clause, section, or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal, or invalid sentence, clause, section, or part thereof not been included herein.

<u>SECTION 6. Repealer</u>. All ordinances or parts of ordinances conflicting with any provision of this Ordinance are hereby repealed insofar as the same affects this Ordinance.

**SECTION 7. Effective Date.** This Ordinance shall become effective five days from the date of adoption.

ENACTED AND ORDAINED this	sday of	_, 2021.
ATTEST:	EAST GOSHEN TOWNSHIP BOARD OF SUPERVISORS	
Louis F. Smith, Secretary	David E. Shuey, Chair	· · · · · · · · · · · · · · · · · · ·
	Michael P. Lunch, Vice-Chair	
	John Hertzog, Member	
	E. Martin Shane, Member	-
į.	Michele Truitt, Member	

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# Memo

# **East Goshen Township**

Date: June 3, 2021

To: Board of Supervisors, Pipeline Task Force, and Planning Commission

From: Rick Smith, Township Manager Re: Noise Ordinance Amendment

Attached is the third draft of the revised Noise Ordinance for your review.

We cleaned up the definitions. We eliminated the requirement for noise level measurements on any construction activity between 10 pm and 7 am. We prohibit any construction activity between 10 pm and 7 am that results in noise that is clearly audible. We defined "clearly audible". We added a time limit on the submission of noise permits.

Additionally, the township does not have a true "Public Nuisance" ordinance so these changes are looking to improve noise nuisance issues through existing ordinances.

If the Board wants move this forward the next step would be have the Solicitor put it in the appropriate form for adoption and advertise the public hearing. This ordinance does not have to go to the County Planning Commission for their review.

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2	online. This tool is only meant for editing.
3	<b>DRAFT 1-17-2020</b>
4	Chapter 156
5	Noise
6 7 8	[HISTORY: Adopted by the Board of Supervisors of the Township of East Goshen 3-18-1986 by Ord. No. 74. Amendments noted where applicable.] § 156-1 Short title.
9 10	The Board of Supervisors, East Goshen Township, Commonwealth of Pennsylvania hereby ordains and enacts the "Noise Control Ordinance No. 74."
11 12 13	§ 156-2 <b>Scope.</b> This chapter shall apply to the control of all sound originating within the limits of East Goshen Township.
14 15	§ 156-3 <b>Definitions.</b> As used in this chapter, the following terms shall have the meanings indicated:
16	A-WEIGHTED SOUND LEVEL
17 18	The sound pressure level in decibels as measured on a sound level meter using the A-weighting network. The level so read is designated "dB(A)" or "dBA."
19	BACKGROUND SOUND LEVEL
20 21	The measured sound level in an area, exclusive of extraneous sounds and the sound contribution of the specific source in question.
22	[Added 8 21 2018 by Ord. No. 129 C 2018]
23	CONSTRUCTION
24	Any site of the following activities;
25 26	1) Site preparation, including but not limited to clearing, grubbing, earthmoving, excavation or grading.
27 28	2) The installation of any type of pipe or appurtenances, including but not limited to storm sewer, sanitary sewer, water main, inlets, or manholes.
29 30 31	3) The construction, assembly, erection, substantial repair, alteration or similar action, but excluding demolition, for or of public or private rights of way, structures, utilities of any building or similar property structure or part thereof.

The following Code does not display images or complicated formatting. Codes should be viewed

32	CONTIGUOUS USE
33	Any land use bordering or abutting, whether divided by real property boundary or by real
34	property boundary and public street.
35	CONTINUOUS SOUND
36	Any sound which is steady state, fluctuating or intermittent with a total duration greater
37	than two minutes in any half-hour interval.
38	DAY-NIGHT AVERAGE SOUND LEVEL (Ldn)
39	The twenty-four-hour energy average of the A-weighted sound-pressure-level, with the
40	levels during the period 10:00 p.m. to 7:00 a.m. the following day increased by 10 dBA
41	before averaging.
42	DECIBEL (DB)
43	A unit for measuring the volume of a sound, equal to 20 times the logarithm to the base 10
44	of the ratio of the pressure of the sound measured to the reference pressure, which is 20
45	micropascals (20 micronewtons per square meter).
46	DEMOLITION
47	Any dismantling, intentional destruction or removal of structures, utilities, public or private
48	right-of-way surfaces or similar property.
49	EMERGENCY
50	Any occurrence or set of circumstances involving actual or imminent physical trauma or
51	property damage which demands immediate action.
52	EMERGENCY WORK
53	Any work performed for the purpose of preventing or alleviating the physical trauma or
54	property damage threatened or caused by an emergency.
55	EQUIVALENT A-WEIGHTED SOUND LEVEL (LEQ)
56	The constant sound level that, in a given situation and time period, conveys the same sound
57	energy as the actual time-varying A-weighted sound. (For the purposes of this chapter, a
58	time period of 24 hours shall be used, unless otherwise specified.)
59	EXTRANEOUS SOUND
60	A sound which is neither part of the background sound level nor comes from the source
61	under investigation.
62	[Added 8-21-2018 by Ord. No. 129-C-2018]
63	GROSS VEHICLE WEIGHT RATING (GVWR)

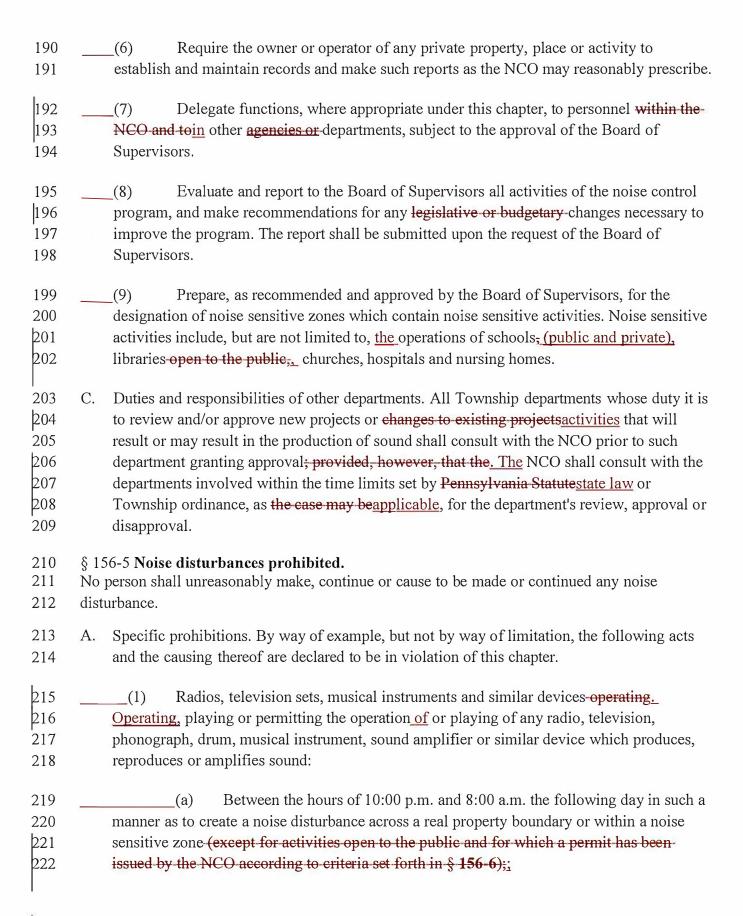
64	The value specified by the manufacturer as the recommended maximum loaded weight of a
65	single motor vehicle. In cases where trailers and tractors are separable, the gross-
66	combination weight rating (GVWR), which is the value specified by the manufacturer as the
67	recommended maximum loaded weight of the combination vehicle, shall be used.
68	IMPULSIVE SOUND
69	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
70	Examples of sources of impulsive sound include explosions, drop forge impacts and the
71	discharge of firearms.
72	LAND USE
73	The actual real use of land and buildings thereon situated regardless of the zoning or other
74	classification attributed to such land and buildings.
75	MOTOR CARRIER VEHICLE ENGAGED IN INTERSTATE COMMERCE
76	Any vehicle for which regulations apply pursuant to Section 18 of the Federal Noise
77	Control Act of 1972 (P.L. 92-574), as amended, pertaining to motor carriers engaged in-
78	interstate commerce.
79	<u>LEQ</u>
80	See "EQUIVALENT A-WEIGHTED SOUND LEVEL"
81	MOTORCYCLE
82	An unenclosed motor vehicle having a saddle for the use of the operator and two or three
83	wheels in contact with the ground, including but not limited to motor scooters and
84	minibikes.
85	MOTOR VEHICLE
86	Any vehicle which is propelled or drawn on land by a motor, including but not limited to
87	passenger cars, trucks, truck trailers, semitrailers, campers, go-carts, snowmobiles,
88	amphibious craft on land, dune buggies or racing vehicles, but not including motorcycles.
00	amphiolous clair on land, danc ouggles of facing venicles, out not morating motorcycles.
89	MUFFLER OR SOUND DISSIPATIVE DEVICE
90	A noise control device. A device for abating the sound of escaping gases of an internal
91	combustion engine.
92	NOISE
93	Any sound which annoys or disturbs humans or which causes or tends to cause an adverse
94	psychological or physiological effect on humans.

NOISE CONTROL OFFICER

96	The East Goshen Township official having lead responsibility for this chapter.
97 98 99 100	NOISE DISTURBANCE  Any sound which endangers or injures the safety or health of humans or animals; annoys or disturbs a reasonable person of normal sensitivities; or endangers or injures personal or real property.
101 102	NOISE SENSITIVE ZONE  Any area designated pursuant to § 156-4B(9) for the purpose of ensuring exceptional quiet.
103 104 105	PERSON  Any individual, association, partnership or corporation, including any officer, employee, department or agency.
106	PLANLY AUDIBLE
107 108 109	Any sound that can be detected by a person using his or her unaided hearing faculties. The NCO or police officer need not require the use of a sound level meter to determine plainly audible
110  111  112  113	POWERED MODEL VEHICLE  Any self-propelled airborne, waterborne or <u>landborneland borne</u> plane, vessel or vehicle which is not designed to carry persons, including but not limited to any model airplane, boat, car or rocket.
114 115 116	PUBLIC RIGHT-OF-WAY  Any street, avenue, boulevard, highway, sidewalk, alley or similar place which is owned or controlled by a governmental entity.
117 118 119	PUBLIC SPACE  Any real property or structures thereon which are owned or controlled by a governmental entity.
120 121 122  123 124 125 126	PURE TONE  Any sound which can be distinctly heard as a single pitch or a set of single pitches. For the purposes of this chapter, a pure tone shall exist if the 1/3 octave band sound pressure level in the band with the tone exceeds the arithmetricarithmetic average of the sound pressure levels of the two contiguous 1/3 octave bands by 5 dB for center frequencies of 500 Hz and above, by 8 dB for center frequencies between 160 Hz and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

128 An imaginary line along the ground surface and its vertical extension which separates the 129 real property owned by one person from that owned by another person, but not including 130 intrabuilding intra-building real property divisions. 131 RECEIVING LAND USE 132 The land use which is a contiguous use to the noise source. 133 RMS SOUND PRESSURE 134 The square root of the time averaged square of the sound pressure, denoted Prms. 135 **SOUND** 136 An oscillation in pressure, particle displacement, particle velocity or other physical 137 parameter in a medium with internal forces that causes compression and rarefaction of that 138 medium. The description of sound may include any characteristic of such sound, including 139 duration, intensity and frequency. 140 SOUND LEVEL 141 The weighted sound pressure level obtained by the use of a sound level meter and frequency 142 weighting network, such as A, B or C as specified in American National Standards Institute 143 specifications for sound level meters (ANSI SI.4-19711983, or the latest approved revision 144 thereof). If the frequency weighting employed is not indicated, the A-weighting shall apply. 145 SOUND LEVEL METER 146 An instrument which includes a microphone, amplifier, RMS detector, integrator or time 147 averager, output meter and weighting networks used to measure sound pressure levels. The 148 sound level meter used for testing purposes in accordance with this chapter shall meet the 149 current American National Standard Institute specifications. 150 SOUND PRESSURE 151 The instantaneous difference between the actual pressure and the average or barometric 152 pressure at a given point in space, as produced by sound energy. SOUND PRESSURE LEVEL 153 154 Twenty times the logarithm to the base 10 of the ratio of the RMS sound pressure to the 155 reference pressure of 20 micropascals [20 times (10 to the negative sixth power) times N 156 over (m squared)]. The sound pressure level is denoted Lp or SPL and is expressed in 157 decibels. 158 **ZONING AREASZONES** 159 As defined by Chapter 240, Zoning, and the following shall apply:

160	A.—Commercial Zones: C-1, C-2, C-4, C-5 inclusive.
161	BIndustrial Zones: I-1, I-2, BP inclusive.
162	CResidential Zones: R-1, R-2, R-3, R-4, R-5 inclusive.
163 164	§ 156-4 Powers and duties of Township; Noise Control Officer.  A. Administration and enforcement.
165 166 167 168	(1) Administration. The noise control program established by this chapter shall be administered by the Noise Control Office(r), hereafter referred to as the "NCO." The <a href="NCOZoning Officer">NCOZoning Officer</a> shall be appointed by serve as the Board of Supervisors for a one-year term NCO.
169 170 171	(2) Enforcement. The NCO and/or the Westtown-East Goshen_Regional Police will have full powers to investigate complaints and prosecute violations in accordance with this chapter.
172 173	B. Powers and duties of the NCO. In order to implement this chapter and for the general purpose of noise abatement and control, the NCO shall have the power and duty to:
174  175	(1) Make recommendations to the Board of Supervisors and other Township boards and <u>agencies</u> commissions (as needed) regarding potential noise <u>problems</u> issues.
176 177	(2) Conduct, or cause to be conducted, research, <u>monitoring</u> , the <u>measurement of sound levels and/or</u> other studies related to noise.
178 179  180 181  182	(3) Enter and inspect any private property or place, and inspect any report or records at any reasonable time when granted permission by the owner or by some other person with apparent authority to act for the owner. When permission is refused or cannot be obtained, a search warrant may be obtained. Such inspection may include administration of any necessary testsmonitoring or measurement of sound levels.
183 184 185  186 187 188	——(4) Require the measurement of the sound level of any source in accordance with the methods, procedures and equipment, and at such locations and times, as the NCO may reasonably prescribe. The NCO may require the measurements to be conducted by, or in the presence of, its enforcement officials—or Township Engineer. The NCO may also require the owner or operator of the source to furnish reports of the results of any such measurements to the NCO.
189	(5) Develop and promulgate standards, testing methods and procedures.



	Time of Day  Time of Day
	Table A
252	of public service utilities or by special permit issued pursuant to § 156-7:
251	exceeds the noise levels specified in Table A, below, except for emergency work-
250	(a) At any time such that the sound level at or across a real property boundary
<b>2</b> 49	1999 by Ord. No. 129-B-99; 8-21-2018 by Ord. No. 129-C-2018] .
248	any tools or equipment used in construction, drilling or demolition work. [Amended 4-20-
247	(6)—Construction/demolitionDemolition. Operating or permitting the operation of
246	[Amended 4-20-1999 by Ord. No. 129-B-99]
245	sensitive zone, except for the Township-approved municipal waste and recycling contractor.
243 244	as to cause a noise disturbance across a residential real property boundary, or within a noise
242 243	of boxes, crates, containers, building materials, garbage cans, trash dumpsters or similar objects between the hours of 10:00 p.m. and 7:00 a.m. the following day in such a manner
241	(5)Loading and unloading. Loading, unloading, opening, closing or other handling
L	
240	noise sensitive zone.
239	which create a noise disturbance across a residential real property boundary or within a
237 238	(4)—Animals and birds. Owning, possessing or harboring any animal or bird which frequently or for continued duration howls, barks, meows, squawks or makes other sounds
727	(4) Animala and hirda Oyming pagagaing or harbaring any animal or hird which
236	by permit issued by the NCO according to criteria set forth in § 156-7.
235	(3)—Street sales. Offering for sale or selling anything by shouting or outcry except-
234	sensitive zone or on a public right-of-way or public space.
233	therefrom creates a noise disturbance across a real property boundary, within a noise
232	between the hours of 10:00 p.m. and 8:00 a.m. the following day such that the sound
231	or noncommercial purpose any loudspeaker, public address system or similar device
230	(2)—Loudspeakers/public address systems. Using or operating for any commercial
229	under Subsection A(2).
228	(d) This section shall not apply to noncommercial spoken language covered
227	the operator of the device, when operated by any passenger on a common carrier.
226	(c) In such a manner as to create a noise disturbance to any person other than
225	in a boat on public waters; or
224	device, when operated in or on a motor vehicle on a public right-of-way or public space, or
223	(b) In such a manner as to create a noise disturbance at 50 feet from such

#### Table A

Time of Day

Time of Day

### Daytime An LEQ of 65 dBA for the daytime period or 5 dBA above background sound level, whichever is greater (7:00 a.m. —to 10:00 p.m-.) Nighttime An LEO of 55 dBA for the nighttime period or 5 dBA above background sound level, whichever is greaterNo person shall operate or permit the outdoor operation of (10:00 p.m. - to 7:00 a.m.)any tools, equipment or machinery used for construction in such a manner as to be plainly audible across a real property boundary. (b) 253 This section shall not apply to the use of domestic power tools subject to 254 Subsection A(15). 14). 255 If authorized by the NCO the pouring of large concrete slabs for non-256 residential construction projects may commence at 6:00 am provided abutting 257 residents have been notified at the day before. 258 (7) Vehicle or motorboat repairs and testing. Repairing, rebuilding, modifying or testing any 259 motor vehicle, motorcycle or motorboat in such a manner as to cause a noise disturbance 260 across a residential real property boundary or within a noise sensitive zone. 261 (8) Motor vehicle idling. Idling of motor vehicles (in such a manner as to cause a noise 262 disturbance across a residential real property boundary or within a noise sensitive zone) at 2.63 any time in excess of 10 minutes in a two-hour period. 264 (9) Airport and aircraft operations. 265 (a) The NCO shall consult with the airport proprietor to recommend changes in airport operations to minimize any noise disturbance which the airport owner may have authority to 266 267 control in its capacity as proprietor. 268 (b) Nothing in this section shall be construed to prohibit, restrict, penalize, enjoin or in any 269 manner regulate the movement of aircraft which are in all respects conducted in accordance 270 with, or pursuant to, applicable federal laws or regulations. 271 (10) Places of public entertainment. Operating, playing or permitting the operation or playing of 272 any radio, television, phonograph, drum, musical instrument, sound amplifier or similar 273 device which produces, reproduces or amplifies sound in any place of public entertainment 274 at a sound level greater than 90 dBA as read by the slow response on a sound level meter at

275 276 277	any point that is normally occupied by a customer, unless a conspicuous and legible sign is located outside such place, near each public entrance, stating "WARNING: SOUND LEVELS WITHIN MAY CAUSE PERMANENT HEARING IMPAIRMENT."
278 279 280 281 282 283 284	(1110) Powered model vehicles. Operating or permitting the operation of powered model vehicles so as to create a noise disturbance across a residential real property boundary, in a public space or within a noise sensitive zone between the hours of 10:00 p.m. and 8:00 a.m. the following day. Maximum sound levels in a public space during the permitted period of operation shall conform to those set forth for residential land-usezones in Table I of Subsection B and shall be measured at a distance of 50 feet from any point on the path of the vehicle.
285	(1211) Stationary nonemergency signaling devices.
286 287 288 289	(a) Sounding or permitting the sounding of any signal from any stationarybell, chime, siren, whistle or similar device, intended for nonemergency purposeswhich do not conform to the regulations set forth for residential land usezone in Table I ofSubsection B.
290 291	(b) Devices used in conjunction with places of religious worship shall beexempt from this provision.
292	(43 <u>12</u> ) Emergency signaling devices.
293 294 295 296	(a) The intentional sounding or permitting the sounding outdoors of any fire,burglar or civil defense alarm, siren, whistle or similar stationary emergency signaling device, except for emergency purposes or for testing, as provided in Subsection A(1312)(b).
1 297	(b) Testing.
298 299 300 301 302	[1] Testing of a stationary emergency signaling device and equipment shall occur at the same time of day each time such a test is performed, but not before 8:00 a.m. or after 10:00 p.m. Any such testing shall use only the minimum cycle test time. In no case shall such test time of a signaling device exceed 30 seconds.
303 304 305 306 307	[2] Testing of the complete emergency signaling system, including the functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall not occur before 8:00 a.m. or after 10:00 p.m. The time limit specified in Subsection A(1312)(b)[1] shall not apply to such

308		complete	sy	stem testing.		
309		(c)	All outdoor burgl	lar alarms, siren	s, whistles or similar sta	ationary
310		emer	gency signaling dev	vices (with the e	xception of civil defens	e and fire alarms
311					nust have an automatic s	
312					10- <u>15</u> minutes.	_
313	(14	13) Noise sensit	ive zones. Creating	or causing the c	reation of any sound wi	thin any noise
314		sensitive zone	designated pursuant	t to § 156-4B(9)	, so as to disrupt the act	ivities normally
315		conducted with	in the zone, provide	ed that conspicu	ous signs are displayed	indicating the
316		presence of the	_ <del>_</del>	•		
317	(15	(14) Domestic po	wer tools. Operating	g <del>or permitting</del> (	the operation of any me	chanically
318		powered saw, s	sander, drill, grinder	r, lawn mower, 🤉	chain saw, string trimme	er, leaf blower,
319		chipper, garder	n tool or similar dev	rice <del>used</del> outdoo	rs <u>in residential areas</u> be	etween the hours
320		of 10:00 p.m. a	and 7:00 a.m. the fol	llowing day so a	s to cause a noise distur	rbance across a
321		residential-real	property boundary.	Exception: pub	lic and/or private golf c	courses can
322		commence mo	wing operations at 6	5:00 a.m. prevai	ling time, provided that	their mowing
323		equipment utilizes the latest available technology in sound reduction. [Amended 4-20-1999]				
324		by Ord. No. 12	29-B-99]			
325	(16	15) Tampering.	The following acts o	or the causing th	ereof are prohibited:	
1 326		(a)	The removal or re	endering inopera	ative by any person othe	er than for
327		purpo	ses of maintenance	e, repair or replace	cement of any noise cor	ntrol device. The
328		NCO	may, by regulation	, list those acts v	which constitute violation	on of this
329		provi				
330		(b)	The (intentional)	moving or rende	ering inaccurate or inop	erative of any
331		sound	l monitoring instrun	nent or device p	ositioned by or for the l	NCO, provided _
332		that s	uch device or the in	nmediate area is	clearly labeled.	
333	В.	Maximum per	missible sound leve	els by receiving l	and use. No person sha	ll operate or cause
334		to be operated	on private property	any source of so	ound in such a manner a	s to create a sound
335		level which exc	ceeds the limits set f	forth for the rece	eiving land use category	in Table I when
336					receiving land use. All	
337		following table	are to prevailing tin	me. <del>[Amended</del> -	4-20-1999 by Ord. No.	129-B-99]
		Тя	ıble I - Continuous	Sound Levels	by Receiving Land Us	e

#### Sound Level Limit

			Sound Level Limit		
			(dBA)		
Receiving Land Use Category		Time			
Residential zones, public space,	Day	7:00 a.m10:00	6065		
open-space		p.m.			
	Night	10:00 p.m7:00	<del>50</del> 55		
		a.m.	A)		
Commercial zones	Day	7:00 a.m10:00	65		
		p.m.			
	Night	10:00 p.m7:00	60		
		a.m.			
Industrial zones		_At all times	70		
(NOTE: Nonconforming uses as	_	oter 240, Zoning, shal	l apply to the zoning		
district in which they are located.)					
(NOTE: If the background sound	levels exceed the	limits set forth in Ta	ble I the Sound Level		
Limit shall be increased to 5 dBA	above the backgro	ound sound level.)			
C. Correction for character of so	und. For any sour	ce of sound which emi	ts a pure tone, the		
maximum sound level limits set forth in the above Table I of Subsection B shall be reduced					
by 5 dBA. For any source of sound which emits an impulsive sound, the excursions of					
·					
sound pressure level shall not exceed 20 dBA over the maximum sound level limits set forth					

by 5 dBA. For any source of sound which emits an impulsive sound, the excursions of sound pressure level shall not exceed 20 dBA over the maximum sound level limits set forth in Table I of Subsection **B**, provided that in no case shall they exceed 80 dBA, regardless of time of day or night or receiving land use, using the fast meter characteristic of a Type II meter, meeting the American National Standard Institute specifications SL.4-1971.

### 345 § 156-6 Exceptions.

- The maximum permissible sound levels by receiving land use established in Subsection <u>A and B</u> shall not apply to any of the following noise sources:
- A. The emission of soundBlasting, only if performed in accordance with a permit issued by the Pennsylvania Department of Environmental Protection. Such blasting may occur only between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, unless specifically authorized at different times by the DEP permit.
- B. Alarms or other devices used for the purpose of alerting personspeople to the existence of an actual emergency or devices such as a horn or siren installed in a motor vehicle and used to warn persons of an imminent danger.
- 355 <u>B. WorkC. Emergency work</u> to provide electricity, water or other public utilities or services-356 <u>whenrestore essential</u> public health or safety are involved.

357 358	C. Normal residential and agricultural services, including construction activities operating within any zoning areadirectly related to the abatement of an emergency.
359	D.—D. Authorized emergency vehicles responding to an emergency.
360	E. A snowplow, snow blower or other similar device in operation used to remove snow or ice.
361 362	F. Work or activities performed or sponsored by governmental agencies or their contractors in the performance of public service.
363 364 365	G. Noises made by bells, chimes, carillons used for religious purposes or in conjunction with national celebrations or public holidays; existing bells, chimes and carillons and clock strike mechanisms that are currently in use for any purpose.
366 367 368	H. Motor vehicle operations which are covered in Pennsylvania Department of Transportation Regulations, Title 67, Chapter 450 governingshall not exceed the noise levels established sound levels, effective August 27, 1977, as amended in 67 Pa Code §157.11 et.
369	I. Public events authorized by the Township.
370	J. Agriculture.
371	§ 156-7 <b>Permits.</b>
372 373 374 375	A. The NCO, upon application from any person, shall have the authority to grant temporary permits permitting the operation or causation of sound in excess of the maximum permissible sound levels by receiving land use established in § 156-5 if the NCO determines that:
376 377 378	(1) The temporary operation or causation of such sound, under the circumstances, will notseverely jeopardize the health, welfare or safety of the citizens of East Goshen Township.
379 380	(2) The denial of such a permit will impose excess hardship on the applicant, the community or other persons.
381	(3)—The operation will not have an adverse effect on <u>a</u> contiguous <u>land</u> use.
382	(4)—The operation will not exceed 30 days.
383 384 385	B. The NCO shall have the right and authority to impose reasonable conditions and restrictions upon any applicant for a temporary permit. No more than six (6) temporary permits in order that the policy of this chapter a calendar year will be implemented, issue for a specific

386		property.
387 388 389	_C.	Any person seeking a <u>temporary</u> permit pursuant to this section shall file an application with the NCO at least <u>two 14</u> days prior to commencement of the noise source. <u>Said The</u> applicant shall include the following information:
390	_	(1) The name, address and telephone number of the applicant.
391		(2) The <del>proposed</del> -location of the <u>proposed</u> activity.
392 393		(3) The nature and purpose of the proposed activity-which-will-generate-sound.
394 395	-	(4) The <del>proposed (</del> estimated) levels of sound to be generated <del>and by</del> the <del>hours</del> of generation.
396 397 398	(5)	A statement demonstrating that bringing the source of sound or <u>proposed</u> activity for which the permit is sought into compliance with the standards set forth in this chapter would impose an unreasonable hardship on the applicant, the community or other persons.
399		(5) The date and time limits for the proposed activity.
400 401 402 403 404 405	D	Permits If the proposed activity is approved, the NCO shall be granted, by written notice, to to shall be applicant containing a temporary permit with any and all necessary applicable conditions, including a time limit on the permitted activity. The temporary permit shall not become effective until all conditions are agreed to by the applicant. Noncompliance with any conditions condition(s) of the permit shall terminate the permit and subject the person holding it to the provisions of this chapter §156-9.
406 407 408	E.	The NCO may issue guidelines, as approved by the Board of Supervisors, defining the procedures to be followed in applying for a <u>temporary</u> permit and the criteria to be considered in deciding whether to grant a permit.
409 410 411	F.	The issuance of any <u>temporary</u> permit by the NCO does not hold East Goshen Township and/or the Westtown-East Goshen Regional Police responsible in any way for death, injuries or damages resulting from the issuance of a permit.
412 413	<u>§-G.</u>	The NCO will provide written notification of the temporary permit to all property owners within 1,000 feet of the subject property.
  414 	§150	5-8 <u>Fees.</u>

415	A. Applicants for a temporary permit shall pay a filing fee to cover the administrative costs
416	required to process the application and send a letter to all property owners within 1,000 feet
417	of the subject property.
418	B. The Board of Supervisors shall by resolution establish a fee for issuance of the temporary
419	permits.
1,12	
420	§ 156-9 Violations and penalties
421	[Amended 5-7-1996 by Ord. No. 112; 3-4-1997 by Ord. No. 117]
422	Any person who violates or permits the violation of any provision of this chapter shall, upon
423	conviction thereof in a summary proceeding brought before a District Justice under the
424	Pennsylvania Rules of Criminal Procedure, be guilty of a summary offense, and shall be subject
425	to the payment of a fine of not less than \$100 and not more than \$1,000, plus the costs of
426	prosecution. In default of payment thereof, the defendant may be sentenced to imprisonment in
427	the county prison for a term of not more than 30 days. Each section of this chapter violated shall
428	constitute a separate offense, and each day or portion thereof in which a violation of this chapter
429	is found to exist shall constitute a separate offense, each of which violations shall be punishable
430	by a separate fine imposed by the District Justice of not less than \$100 and not more than \$1,000,
431 432	plus the costs of prosecution, or upon default of payment thereof, the defendant may be
432	sentenced to imprisonment in the county prison for a term of not more than 30 days. All fines and penalties collected for the violation of this chapter shall be paid to the Township Treasurer.
434	and penalties confected for the violation of this chapter shall be paid to the Township Treasurer.
435	§ 156-910 Appeals.
436	Appeals of an adverse decision of the NCO and Board of Supervisors of East Goshen Township
437	shall be made to the Court of Common Pleas of Chester County.
437	shall be made to the court of common reas of chester county.
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439	

# Memo

Date: June 3, 2021

To: Board of Supervisors, Pipeline Task Force, and Planning Commission

From: Rick Smith, Township Manager

Re: Construction Ordinance

The attached ordinance would prohibit construction and/or demolition between the hours of 10 PM and 7 AM. This would eliminate the need to have the Township Engineer take noise readings if a contractor was working after 10 PM.

Additionally, the township does not have a true "Public Nuisance" ordinance so these changes are looking to improve noise nuisance issues through existing ordinances.

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#### **EAST GOSHEN TOWNSHIP**

## CHESTER COUNTY, PENNSYLVANIA

ORDINANCE NO.	
---------------	--

AN ORDINANCE OF THE TOWNSHIP OF EAST GOSHEN, CHESTER COUNTY, PENNSYLVANIA, AMENDING THE EAST GOSHEN TOWNSHIP CODE, BY ADDING A NEW CHAPTER 122 ENTITLED "CONSTRUCTION & DEMOLITION" IN ORDER TO REGULATE SUCH ACTIVITIES WITHIN THE TOWNSHIP TO PROTECT THE PUBLIC HEALTH, SAFETY AND WELFARE.

**BE IT ENACTED AND ORDAINED** by the Board of Supervisors of East Goshen Township that the East Goshen Township Code shall be amended as follows:

<u>SECTION 1.</u> The East Goshen Township Code is hereby amended to include a new Chapter 122 which shall be entitled "Construction & Demolition" and read as follows:

# **Chapter 122 Construction and Demolition**

**§ 122-1. Definitions.** As used in this chapter, the following terms shall have the meanings indicated:

#### CONSTRUCTION

Any of the following activities;

- 1) Site preparation, including but not limited to clearing, grubbing, earthmoving, excavation or grading.
- 2) The installation of any type of pipe or appurtenances, including but not limited to storm sewer, sanitary sewer, water main, gas line, pipeline, inlets, valves, fire hydrants, service lines or manholes.
- 3) The erection, repair, alteration of any building or structure or part thereof.
- 4) The assembly, erection, repair, alteration of any, wire, cable, pole, conduit, fixture, light standard or cabinet or part thereof.
- 5) The repair, alteration or addition of any driveway, parking lot, curbing, paving, parking area, sidewalk, patio.

#### **DEMOLITION**

Any of the following activities;

- The dismantling, intentional destruction or removal of any type of pipe or appurtenances, including but not limited to storm sewer, sanitary sewer, water main, gas line, pipeline, inlets, valves, fire hydrants, service lines or manholes.
- 2) The dismantling, intentional destruction or removal of any building or structure or part thereof.
- 3) The dismantling, intentional destruction or removal of any wire, cable, pole, conduit, fixture, light standard or cabinet or part thereof.
- 4) The intentional destruction or removal of any type any driveway, parking lot, paving, parking area, sidewalk, patio,

#### **EMERGENCY**

Any occurrence or set of circumstances involving actual or imminent physical trauma or injury or property damage which demands immediate action.

#### **EMERGENCY WORK**

Any work performed for the purpose of preventing or alleviating the physical trauma or property damage threatened or caused by an emergency.

#### **GOVERNMENTAL AGENCIES**

An organization that is created to carry out the function of a municipal, county, state or federal government.

#### **PERSON**

Any individual, association, partnership or corporation, including any officer, employee, department or agency.

## **PUBLIC UTILITY**

A public utility as that term is defined in the Public Utility Code, 66 Pa.C.S.A. § 101 et seq., as may be amended from time to time.

### § 122-2. Prohibitions.

No person shall permit any construction and/or demolition to occur on any private or public property, easement, road or street within the boundaries of East Goshen Township, Chester County, Pennsylvania between the hours of 10:00 PM and 7:00 AM.

## § 122-3. Exemptions

The following activities are exempt from the provisions of this ordinance:

- A. Emergency work to provide or restore electricity, water or other public utilities.
- B. Work or activities performed or sponsored by governmental agencies or their contractors in the performance of public service.
- C. A snowplow, snow blower or other similar device, salt truck, or loader used to remove snow or ice.
- D. Construction or demolition for which a building permit has been issued that are completely contained within an existing building or in a new building or part thereof, which is complete with walls, windows and doors. The decision as to whether or not a new building or part thereof is complete shall be made by the Building Code Official.

## § 122-4. Violations and penalties.

Any person who violates or permits the violation of any provision of this chapter shall, upon conviction thereof in a summary proceeding brought before a District Justice under the Pennsylvania Rules of Criminal Procedure, be guilty of a summary offense, and shall be subject to the payment of a fine of not less than \$100 and not more than \$1,000, plus the costs of prosecution. In default of payment thereof, the defendant may be sentenced to imprisonment in the county prison for a term of not more than 30 days. Each section of this chapter violated shall constitute a separate offense, and each day or portion thereof in which a violation of this chapter is found to exist shall constitute a separate offense, each of which violations shall be punishable by a separate fine imposed by the District Justice of not less than \$100 and not more than \$1,000, plus the costs of prosecution, or upon default of payment thereof, the defendant may be sentenced to imprisonment in the county prison for a term of not more than 30 days. All fines and penalties collected for the violation of this chapter shall be paid to the Township Treasurer.

SECTION 2. Severability. If any sentence, clause, section, or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts hereof. It is hereby declared as the intent of the Board of Supervisors of East Goshen Township that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause,

section or part thereof not been included herein.

**SECTION 3. Repealer.** All Ordinances or parts of Ordinances conflicting with any provisions of this Ordinance are hereby repealed insofar as the same affects this Ordinance.

SECTION 4. Effective Date. This Ordinance shall be effective five (5) days following enactment as by law provided.								
ENACTED AND ORDAINED this day of, 2021.								
Louis F. Smith, Secretary	David E. Shuey, Chairman							
	Michael P. Lynch, Vice Chairman							
	E. Martin Shane, Member							
	John F. Hertzog, Member							
	Michele D. Truitt, Member							

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## 4.3.5 Environmental Hazards - Oil and Natural Gas Pipelines

This section provides a profile and vulnerability assessment of the oil and natural gas pipelines hazard profile for the Chester County Hazard Mitigation Plan (HMP).

Product release into the local environment can derive from a fixed facility or occur at any location along a pipeline route, and may be the result of carelessness, technical failure, external incidents, or an intentional act against the facility or container. Release of certain products considered hazardous materials (hazmat) can immediately and adversely impact the general population, causing effects ranging from inconvenient evacuations to personal injury and even death. Moreover, any release can compromise the local environment through contamination of soil, groundwater, or local flora and fauna.

#### 4.3.5.1 Location and Extent

Based on past occurrences, pipeline incidents within Chester County have been accidental and have not been considered terrorist or criminal acts. While past occurrences have not been deemed intentional, an intentional release of any of these products in large quantity would pose a threat to the local population, economy, and environment resulting in lost revenue, injuries, and deaths.

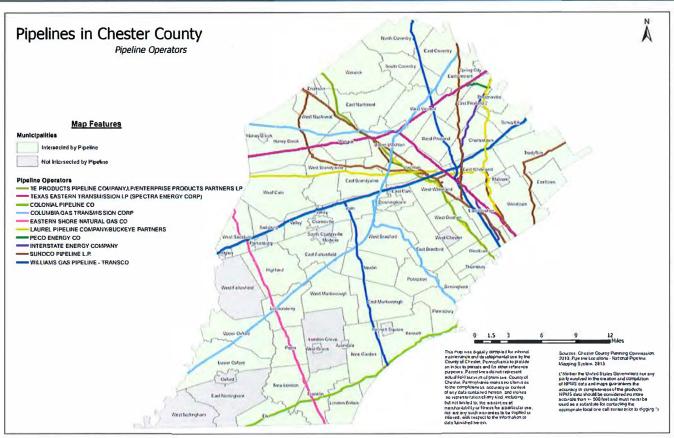
Chester County is home to nearly 600 linear miles of pipelines. Many of the pipelines have been in place for decades; more recently, the construction of new lines and upgrades to existing lines have increased. The county's large agricultural areas increase its vulnerability to pipeline accidents. In 2013, the Chester County Planning Commission created the Pipeline Information Center (PIC) to inform community members of all pipeline issues, pipeline safety, the new pipeline review process, and the latest information on pipeline project activity within the county (Chester County Planning Commission n.d.).

Active pipeline projects in the county include the Mariner East 2 project that carries natural gas, ethane, and propane; 2017 Expansion Project; Northeast Supply Enhancement Project; Greater Philadelphia Expansion Project; and Adelphia Gateway, all of which transport natural gas.

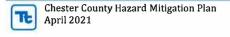
Figure 4.3.5-1 shows pipeline operators in Chester County. Mostly all of the municipalities in Chester County are intersected by pipelines besides Honey Brook Borough, West Fallowfield Township, Oxford Borough, East Nottingham Township, West Nottingham Township, London Grove Township, West Grove Borough, Avondale Borough, Kennett Square Borough, South Coatesville Borough, Modena Borough, West Chester Borough, and Malvern Borough.



Figure 4.3.5-1. Chester County Pipelines



Source: Chester County Planning Commission 2013





## 4.3.5.2 Range of Magnitude

The Pipeline and Hazardous Materials Safety Administration (PHMSA) classifies pipeline incidents into the following categories: Gas Distribution, Gas Gathering, Gas Transmission, and Liquefied Natural Gas (LNG). Pipeline incidents within Chester County could range from minor leaks to a large explosion that could lead to loss of life and damage to property, environment, and economy. Severity of an incident varies depending on the type of material released, and distance and related response time for emergency response teams. Areas closest to the release sites are generally at the greatest risk; however, depending on the material, a release can travel great distances or persist over a long period of time resulting in far-reaching effects on people and the environment.

The worst-case scenario would be a large, uncontrolled release of a toxic gas or liquid from a pipeline or pump station within a major urban area. Physical property damage to private wells and public water systems is likely from this type of event, the potential for injury and death to people up to 0.25 mile from the scene is significant. This type of event would likely overwhelm the medical care capacity within the county, and possibly the region. Businesses nearby could close, and households could potentially be displaced.

#### 4.3.5.3 Past Occurrence

The county has experienced pipeline accidents. For most incidents, municipal police departments and county emergency dispatchers are contacted for emergency response. The county's Hazardous Materials Response Team is contacted for technical advice about addressing the hazardous material. Between 2000 and 2019, a total of 311 pipeline incidents have occurred, resulting in 20 fatalities, 58 injuries, and \$210,050,876 in damages in the state of Pennsylvania (PHMSA 2020).

One significant incident occurred in West Goshen Township at a pump station on August 5, 2019. Pipeline experts state vapor buildup likely led to an explosion at a Sunoco Pipeline pump station. Independent pipeline experts say the explosion appeared to have been caused by relighting of a pilot in a flare for burning off excess gases at a time when vapor had accumulated. In a report developed for the township, responders concluded that Sunoco exceeded federal safety requirements in the plans for the pumping station. Local residents reported that the explosion shook their house (Hurdle 2019).

Another significant incident took place in West Whiteland and Uwchlan Townships in July 2017, where several households complained about access to their private well water being interrupted or being cloudy. Sunoco Pipeline LP suspended installation of its contentious Mariner East 2 underground pipeline near Exton. Some families had to stay in hotels for the rest of the week and several families were provided bottled water. Local officials suspected that non-toxic bentonite clay used as a lubricant during the horizontal-drilling process may have migrated into private wells (Maykuth 2017).

In June 2018, Sunoco pipeline spilled 33,500 gallons of gas into Darby Creek. Sunoco installed a new 12-inch line that would temporarily carry gas liquids, which was the same line that leaked gasoline in a creek near Philadelphia International Airport. The company said the stretch of pipeline that was converted runs between Wallace and Middletown Townships, a distance of about 25 miles (Hurdle 2018).

#### 4.3.5.4 Future Occurrence

Because of the wide scope of definition of pipeline incidents, ranging from a small spill to a large release of a highly volatile or toxic hazmat, incidents can happen at any time, and will occur in the future. Transportation of hazmats via pipelines cross streams within the watersheds that are part of the county's domestic water supply.

While pipeline incidents in Chester County have occurred in the past, future incidents are generally considered difficult to predict. Although the county does not anticipate severe releases on any regular basis, the possibility of a significant release should not be discounted. Based on Risk Factor Methodology Probability Criteria, the likelihood of future occurrences within Chester County remains *highly likely*.



### 4.3.5.5 Vulnerability Assessment

To understand risk, a community must evaluate assets exposed or vulnerable within the identified hazard area. Effects of and risk from pipelines are examined. The following sections evaluate and estimate potential impacts in Chester County:

- Overview of vulnerability
- Impacts on (1) life, health, and safety; (2) general building stock; (3) critical facilities, (4) the economy, and (5) the environment
- Cascading effect on other hazards
- Future growth and development

## Overview of Vulnerability

Pipelines within the Commonwealth of Pennsylvania are regulated by several different agencies. Although Chester County has no regulatory authority over pipeline operators, the county can be engaged in the environmental review of proposals and coordinating emergency services response. Some of the county-level departments involved include the Planning Commission, Water Resources Authority, Conservation District, Facility and Parks, and Department of Emergency Services. Federal and state agencies involved in pipeline safety and regulations include the following:

- Federal Emergency Regulatory Commission (FERC) is an independent agency of the United States government that regulates the interstate transmission of electricity, natural gas, and oil, and reviews proposals to build LNG terminals and interstate natural gas pipelines.
- U.S. Department of Transportation (USDOT) oversees the safety of pipelines and transportation infrastructure.
- Pipeline and Hazardous Materials Safety Administration (PHMSA) develops and enforces regulations for a safe, reliable, and environmentally sound pipeline transportation system.
- Public Utility Commission (PUC) enforces safety standards for pipeline facilities.
- Pennsylvania Department of Environmental Protection (PADEP) has regulatory authority over any crossing of a wetland or waterway by a pipeline. Pipeline projects located within Delaware River Basin may be subject to regulatory review by the Delaware River Basin Commission (DRBC).
- Many municipal governments are authorized to enact zoning and subdivision regulations to regulate the siting and environmental impact of pipelines (Chester County Planning Commission 2013).

#### Impact on Life, Health, and Safety

Pipeline hazards exert the greatest impact on the residential population in Chester County (Table 4.3.5-1 summarizes population vulnerable to pipeline hazards). Several incidents reported in the county are related to liquid and gas leaks from pump stations and pipelines. The Township of Uwchlan has the greatest number of residents in the pipeline hazard area, with a total of 17,797 people. First responders are also greatly impacted as well. Their safety may be at risk during on-scene operations and they may need to perform additional responsibilities such as traffic control. There is a potential for a higher than normal call volume/demand for first responders and they may have a difficult time responding to incidents due to limited access to roads and damaged infrastructure.

Table 4.3.5-1. Estimated Chester County Population Vulnerable to Pipeline Hazards

	Total	Within 0.5 Mile of a Pipeline		
Jurisdiction	Population	Number	Percent Total	
Atglen (B)	1,459	1,074	73.6%	
Avondale (B)	1,295	0	0.0%	
Birmingham (Twp)	4,207	551	13.1%	
Caln (Twp)	14,198	9,069	63.9%	



	Total	Within 0.5 Mile of a Pipeline		
Jurisdiction	Population 1	Number	Percent Total	
Charlestown (Twp)	5,813	4,209	72.4%	
Coatesville (C)	13,147	8	0.1%	
Downingtown (B)	7,929	2,012	25.4%	
East Bradford (Twp)	9,959	593	6.0%	
East Brandywine (Twp)	8,416	4,990	59.3%	
East Caln (Twp)	4,876	3,502	71.8%	
East Coventry (Twp)	6,770	1,511	22.3%	
East Fallowfield (Twp)	7,567	485	6.4%	
East Goshen (Twp)	18,199	16,361	89.9%	
East Marlborough (Twp)	7,326	455	6.2%	
East Nantmeal (Twp)	1,723	444	25.8%	
East Nottingham (Twp)	8,929	0	0.0%	
East Pikeland (Twp)	7,331	4,933	67.3%	
East Vincent (Twp)	10,603	6,570	62.0%	
East Whiteland (Twp)	7,062	5,204	73.7%	
Easttown (Twp)	11,415	1,675	14.7%	
Elk (Twp)	1,786	725	40.6%	
Elverson (B)	1,405	1,104	78.6%	
Franklin (Twp)	4,506	2,154	47.8%	
Highland (Twp)	1,370	264	19.3%	
Honey Brook (B)	1,865	0	0.0%	
Honey Brook (Twp)	8,205	3,956	48.2%	
Kennett (Twp)	8,177	1,929	23.6%	
Kennett (Twp)  Kennett Square (B)	6,159	0	0.0%	
London Britain (Twp)	3,241	1,012	31.2%	
London Grove (Twp)	2,450	0	0.0%	
Londonderry (Twp)	8,615	5,217	60.6%	
Lower Oxford (Twp)	5,058	712	14.1%	
Malvern (B)	3,440	218	6.3%	
Modena (B)	873	0	0.0%	
New Garden (Twp)	12,111	4,661	38.5%	
	1,312	221	16.8%	
New London (Twp) Newlin (Twp)	5,921	1,224	20.7%	
	7,996	2,844	35.6%	
North Coventry (Twp)	5,420	0	0.0%	
Oxford (B)	3,781	932	24.6%	
Parkesburg (B)	5,511	1,357	24.6%	
Penn (Twp)				
Pennsbury (Twp)	3,649	644	17.6%	
Phoenixville (B)	16,815	4,018	23.9%	
Pocopson (Twp)	4,838	1,351 1,934	27.9% 49.3%	
Sadsbury (Twp)	3,919			
Schuylkill (Twp)	8,639	3,767	43.6%	
South Coatesville (B)	1,276	255	0.0%	
South Coventry (Twp)	2,631		9.7%	
Spring City (B)	3,320	985	29.7%	
Thornbury (Twp)	3,181	301	9.5%	
Tredyffrin (Twp)	29,481	8,268	28.0%	
Upper Oxford (Twp)	2,518	646	25.7%	
Upper Uwchlan (Twp)	11,509	10,330	89.8%	
Uwchlan (Twp)	18,869	17,797	94.3%	
Valley (Twp)	7,661	4,271	55.7%	
Wallace (Twp)	3,678	2,664	72.4%	
Warwick (Twp)	2,543	203	8.0%	
West Bradford (Twp)	12,869	7,847	61.0%	
West Brandywine (Twp)	7,482	3,436	45.9%	
West Caln (Twp)	9,080	2,722	30.0%	



	Total	Within 0.5 Mile of a Pipeline		
Jurisdiction	Population	Number	Percent Total	
West Chester (B)	19,888	0	0.0%	
West Fallowfield (Twp)	2,596	28	1.1%	
West Goshen (Twp)	23,021	12,085	52.5%	
West Grove (B)	2,846	0	0.0%	
West Marlborough (Twp)	771	138	17.9%	
West Nantmeal (Twp)	1,999	1,167	58.4%	
West Nottingham (Twp)	2,718	0	0.0%	
West Pikeland (Twp)	4,069	2,064	50.7%	
West Sadsbury (Twp)	2,393	1,548	64.7%	
West Vincent (Twp)	5,257	2,577	49.0%	
West Whiteland (Twp)	18,403	11,598	63.0%	
Westtown (Twp)	10,916	5,170	47.4%	
Willistown (Twp)	10,895	4,536	41.6%	
Chester County (Total)	517,156	204,525	39.5%	

Sources: U.S. Census 2018; Chester County Geographic Information System (GIS) 2020; National Pipeline Mapping System 2017 Notes: % = Percent; B = Borough; C = City; Twp = Township

#### Impacts on General Building Stock

While buildings may be present within the hazard area, estimating direct damage to these structures and facilities would be difficult. Potential losses may include contamination and/or potential structural and content losses if an explosion occurs. To estimate the buildings exposed to a pipeline event, the half-mile buffer areas were overlaid upon the building level. The replacement cost value of the structures with their center in the buffer areas were totaled (Table 4.3.5-2). The Township of Uwchlan has the greatest number of buildings and the greatest replacement cost values that would be impacted by a pipeline event. However, if a pipeline release were to occur, the incident would not be located along all pipelines in the county, but instead only a section of the total pipeline exposure area. Therefore, the total exposure does not represent a complete vulnerability, should a hazard event occur.

Table 4.3.5-2. Total Building Exposed to a Pipeline Incident

			With 0.5 Mile of a Pipeline			
Jurisdiction	Total Number of Buildings	Total Replacement Cost Value	Number of Buildings	Percent of Total	RCV (Replacement Cost Value)	Percent Total
Atglen (B)	583	\$300,171,233	436	74.8%	\$232,623,618	77.5%
Avondale (B)	436	\$275,491,131	0	0.0%	\$0	0.0%
Birmingham (Twp)	1,774	\$1,521,752,088	235	13.2%	\$176,629,831	11.6%
Caln (Twp)	5,696	\$4,389,258,174	3,580	62.9%	\$2,587,525,346	59.0%
Charlestown (Twp)	2,655	\$2,334,124,537	1,949	73.4%	\$1,824,544,622	78.2%
Coatesville (C)	3,545	\$2,658,702,748	7	0.2%	\$28,492,994	1.1%
Downingtown (B)	2,619	\$2,678,308,815	624	23.8%	\$560,966,034	20.9%
East Bradford (Twp)	4,033	\$3,166,888,223	255	6.3%	\$186,210,606	5.9%
East Brandywine (Twp)	4,201	\$2,499,920,165	2,477	59.0%	\$1,304,802,700	52.2%
East Caln (Twp)	1,509	\$1,864,909,402	970	64.3%	\$659,800,023	35.4%
East Coventry (Twp)	3,832	\$2,200,926,728	935	24.4%	\$601,431,762	27.3%
East Fallowfield (Twp)	4,025	\$1,984,687,476	319	7.9%	\$182,408,390	9.2%
East Goshen (Twp)	6,498	\$5,680,635,001	5,836	89.8%	\$5,005,377,300	88.1%



			With 0.5 Mile of a Pipeline			
Jurisdiction	Total Number of Buildings	Total Replacement Cost Value	Number of Buildings	Percent of Total	RCV (Replacement Cost Value)	Percent Total
East Marlborough (Twp)	3,888	\$3,646,563,821	341	8.8%	\$242,133,936	6.6%
East Nantmeal (Twp)	1,509	\$1,131,945,456	341	22.6%	\$227,041,273	20.1%
East Nottingham (Twp)	4,960	\$3,185,167,607	0	0.0%	\$0	0.0%
East Pikeland (Twp)	3,959	\$2,751,413,608	2,671	67.5%	\$1,880,779,690	68.4%
East Vincent (Twp)	3,872	\$2,764,012,516	2,350	60.7%	\$1,482,457,302	53.6%
East Whiteland (Twp)	5,002	\$8,143,686,632	3,704	74.1%	\$5,194,240,730	63.8%
Easttown (Twp)	4,583	\$3,998,338,009	673	14.7%	\$606,903,373	15.2%
Elk (Twp)	1,361	\$754,193,647	559	41.1%	\$295,652,666	39.2%
Elverson (B)	716	\$516,332,051	556	77.7%	\$352,758,850	68.3%
Franklin (Twp)	2,468	\$1,537,535,450	1,156	46.8%	\$709,337,331	46.1%
Highland (Twp)	1,304	\$1,067,555,265	324	24.8%	\$281,585,711	26.4%
Honey Brook (B)	771	\$446,825,932	0	0.0%	\$0	0.0%
Honey Brook (Twp)	4,871	\$3,389,705,910	2,249	46.2%	\$1,379,154,898	40.7%
Kennett (Twp)	4,166	\$4,134,894,338	969	23.3%	\$839,029,482	20.3%
Kennett Square (B)	1,956	\$1,600,982,472	0	0.0%	\$0	0.0%
London Britain (Twp)	1,782	\$1,064,040,035	549	30.8%	\$284,588,930	26.7%
London Grove (Twp)	4,233	\$3,148,102,405	0	0.0%	\$0	0.0%
Londonderry (Twp)	1,755	\$1,034,199,367	1,016	57.9%	\$569,118,143	55.0%
Lower Oxford (Twp)	2,585	\$2,325,017,464	499	19.3%	\$414,593,211	17.8%
Malvern (B)	1,149	\$1,256,307,741	63	5.5%	\$73,382,681	5.8%
Modena (B)	226	\$143,886,459	0	0.0%	\$0	0.0%
New Garden (Twp)	5,418	\$5,996,313,471	1,839	33.9%	\$1,684,593,535	28.1%
New London (Twp)	2,955	\$1,850,994,293	542	18.3%	\$326,251,697	17.6%
Newlin (Twp)	1,188	\$767,919,221	272	22.9%	\$152,780,527	19.9%
North Coventry (Twp)	4,367	\$2,814,129,243	1,614	37.0%	\$1,419,825,344	50.5%
Oxford (B)	1,795	\$1,620,222,123	0	0.0%	\$0	0.0%
Parkesburg (B)	1,478	\$791,790,495	347	23.5%	\$185,561,765	23.4%
Penn (Twp)	2,962	\$3,335,917,017	952	32.1%	\$1,897,144,119	56.9%
Pennsbury (Twp)	1,793	\$1,741,030,601	359	20.0%	\$339,583,349	19.5%
Phoenixville (B)	6,031	\$4,404,373,172	1,383	22.9%	\$1,152,017,493	26.2%
Pocopson (Twp)	1,781	\$1,616,048,060	476	26.7%	\$480,587,472	29.7%
Sadsbury (Twp)	2,244	\$1,514,078,865	1,093	48.7%	\$939,693,219	62.1%
Schuylkill (Twp)	4,116	\$3,296,773,180	1,788	43.4%	\$1,358,411,568	41.2%
South Coatesville (B)	669	\$656,482,254	0	0.0%	\$0	0.0%
South Coventry (Twp)	1,655	\$1,175,837,157	144	8.7%	\$54,672,091	4.6%
Spring City (B)	1,282	\$913,935,869	384	30.0%	\$255,665,291	28.0%
Thornbury (Twp)	1,222	\$1,249,939,720	145	11.9%	\$335,876,666	26.9%



			With 0.5 Mile of a Pipeline			
Jurisdiction	Total Number of Buildings	Total Replacement Cost Value	Number of Buildings	Percent of Total	RCV (Replacement Cost Value)	Percent Total
Tredyffrin (Twp)	10,751	\$13,427,976,905	3,118	29.0%	\$5,257,635,098	39.2%
Upper Oxford (Twp)	2,098	\$1,327,197,078	512	24.4%	\$309,718,578	23.3%
Upper Uwchlan (Twp)	4,459	\$3,757,709,779	3,963	88.9%	\$3,282,538,070	87.4%
Uwchlan (Twp)	6,633	\$7,025,589,763	6,230	93.9%	\$6,281,759,021	89.4%
Valley (Twp)	3,430	\$2,597,377,442	1,901	55.4%	\$1,354,281,549	52.1%
Wallace (Twp)	2,069	\$1,322,743,721	1,506	72.8%	\$952,211,809	72.0%
Warwick (Twp)	2,175	\$1,133,542,100	176	8.1%	\$93,238,330	8.2%
West Bradford (Twp)	6,163	\$3,995,074,181	3,705	60.1%	\$2,098,488,191	52.5%
West Brandywine (Twp)	4,149	\$2,231,906,820	1,942	46.8%	\$1,182,598,337	53.0%
West Caln (Twp)	6,021	\$2,765,167,902	1,746	29.0%	\$722,804,248	26.1%
West Chester (B)	4,156	\$5,374,643,016	0	0.0%	\$0	0.0%
West Fallowfield (Twp)	2,171	\$1,743,066,295	32	1.5%	\$26,046,613	1.5%
West Goshen (Twp)	8,399	\$9,444,801,871	4,271	50.9%	\$3,873,467,194	41.0%
West Grove (B)	1,053	\$499,625,186	0	0.0%	\$0	0.0%
West Marlborough (Twp)	967	\$997,081,475	131	13.5%	\$87,099,079	8.7%
West Nantmeal (Twp)	1,830	\$1,139,858,316	1,095	59.8%	\$651,320,164	57.1%
West Nottingham (Twp)	1,989	\$1,196,217,005	0	0.0%	\$0	0.0%
West Pikeland (Twp)	2,120	\$1,506,034,830	1,082	51.0%	\$717,348,285	47.6%
West Sadsbury (Twp)	1,876	\$1,651,357,888	1,134	60.4%	\$854,961,633	51.8%
West Vincent (Twp)	3,532	\$2,587,356,437	1,738	49.2%	\$1,307,741,811	50.5%
West Whiteland (Twp)	7,022	\$7,660,221,171	4,460	63.5%	\$4,956,653,247	64.7%
Westtown (Twp)	4,175	\$3,282,102,771	1,989	47.6%	\$1,553,918,977	47.3%
Willistown (Twp)	6,043	\$4,727,817,226	2,446	40.5%	\$1,829,508,526	38.7%
Chester County (Total)	232,759	\$194,736,735,824	90,158	38.7%	\$76,159,574,329	39.1%

Sources: Chester County GIS 2020; RSMeans 2019; National Pipeline Mapping System 2017 Notes: % = Percent; B = Borough; C = City; Twp = Township

#### **Impacts on Critical Facilities**

Potential losses of critical facilities caused by a pipeline incident are difficult to quantify. Potential losses may include inaccessibility, loss of service, contamination, and/or potential structural and content losses if an explosion occurs. Table 4.3.5-3 summarizes critical facilities and lifelines located within the pipeline buffer area. A total of 4,202 critical facilities are located in Chester County. Overall, 1,564 critical facilities are exposed to a pipeline event, and 1,037 of those facilities are considered lifelines.

Table 4.3.5-3. Number of Critical Facilities in Pipeline Incident Exposure

	Jurisdictions	Number of Critical Facilities in Pipeline Incident Exposure (Lifelines)	Jurisdictions	Number of Critical Facilities in Pipeline Incident Exposure (Lifelines)
ſ	Atglen (B)	14 (11)	North Coventry (Twp)	33 (19)



Jurisdictions	Number of Critical Facilities in Pipeline Incident Exposure (Lifelines)	Jurisdictions	Number of Critical Facilities in Pipeline Incident Exposure (Lifelines)					
Avondale (B)	0 (0)	Oxford (B)	0 (0)					
Birmingham (Twp)	8 (8)	Parkesburg (B)	7 (3)					
Caln (Twp)	56 (45)	Penn (Twp)	14 (9)					
Charlestown (Twp)	53 (38)	Pennsbury (Twp)	12 (7)					
Coatesville (C)	6 (6)	Phoenixville (B)	13 (11)					
Downingtown (B)	13 (10)	Pocopson (Twp)	12 (9)					
East Bradford (Twp)	10 (8)	Sadsbury (Twp)	24 (10)					
East Brandywine (Twp)	26 (20)	Schuylkill (Twp)	24 (13)					
East Caln (Twp)	8 (5)	South Coatesville (B)	0 (0)					
East Coventry (Twp)	16 (13)	South Coventry (Twp)	3 (3)					
East Fallowfield (Twp)	13 (11)	Spring City (B)	1 (1)					
East Goshen (Twp)	59 (34)	Thombury (Twp)	8 (7)					
East Marlborough (Twp)	6 (5)	Tredyffrin (Twp)	119 (72)					
East Nantmeal (Twp)	6 (6)	Upper Oxford (Twp)	4 (2)					
East Nottingham (Twp)	0 (0)	Upper Uwchlan (Twp)	56 (42)					
East Pikeland (Twp)	29 (20)	Uwchlan (Twp)	98 (43)					
East Vincent (Twp)	39 (28)	Valley (Twp)	35 (24)					
East Whiteland (Twp)	136 (78)	Wallace (Twp)	24 (21)					
Easttown (Twp)	9 (4)	Warwick (Twp)	1 (1)					
Elk (Twp)	2 (2)	West Bradford (Twp)	26 (17)					
Elverson (B)	8 (4)	West Brandywine (Twp)	28 (24)					
Franklin (Twp)	12 (8)	West Caln (Twp)	6 (3)					
Highland (Twp)	6 (4)	West Chester (B)	0 (0)					
Honey Brook (B)	0 (0)	West Fallowfield (Twp)	1 (1)					
Honey Brook (Twp)	21 (11)	West Goshen (Twp)	69 (39)					
Kennett (Twp)	21 (17)	West Grove (B)	0 (0)					
Kennett Square (B)	0 (0)	West Marlborough (Twp)	7 (6)					
London Britain (Twp)	8 (8)	West Nantmeal (Twp)	17 (12)					
London Grove (Twp)	0 (0)	West Nottingham (Twp)	0 (0)					
Londonderry (Twp)	16 (11)	West Pikeland (Twp)	28 (25)					
Lower Oxford (Twp)	10 (9)	West Sadsbury (Twp)	24 (11)					
Malvern (B)	0 (0)	West Vincent (Twp)	30 (26)					
Modena (B)	0 (0)	West Whiteland (Twp)	145 (99)					
New Garden (Twp)	19 (10)	Westtown (Twp)	14 (8)					
New London (Twp)	9 (9)	Willistown (Twp)	33 (17)					
Newlin (Twp)	9 (9)	Chester County (Total)	1,564 (1,037)					



Sources: Chester County GIS 2020; National Pipeline Mapping 2017 Notes: % = Percent; B = Borough; C = City; Twp = Township

#### Impact on the Economy

Economic loss from pipeline incidents and explosion incidents ranges from non-recordable to losses exceeding millions of dollars. Impact on the local economy from a single incident is almost impossible to measure because of complexities of predicting losses of work, revenue, and future business. However, it is certain that a significant incident within an urban area would cause various economic losses. Pipeline incidents can lead to closures of major transportation routes. Waterway, railroad, airport, and highway closures caused by these incidents can hinder delivery of goods and services. Potential impacts may be local, regional, or statewide depending on the magnitude of the event and the extent of disruptions to services. In 2019, Pennsylvania experienced 19 pipeline incidents, causing \$13.4 million in damages (PHMSA 2019).

#### Impact on the Environment

As discussed above, pipeline incidents and explosion incidents can profoundly affect the surrounding environment. Contamination of soil, surface water, and groundwater can result in many direct impacts on surrounding populations and ecosystems. When a large volume of product is released, much of it remains unrecovered as product disperses into the environment (Belvederesi, et al 2018). This can have an immense and lasting impact on the local flora and fauna.

## Cascading Impacts to Other Hazards

Pipeline events can cause utility failure. If a spill or other release occurred, water quality and supply could stop or drastically decrease while the facility restored service. Pipeline incidents also have the potential to start fires. For instance, in 2019, there were 66 fires in the United States that resulted from a gas distribution pipeline incident (PHMSA 2019). These fires could potentially spread, causing other structural fires. Section 4.3.14, Structural Fires, and Section 4.3.18, Utility Interruption, provide additional information.

## **Future Changes that May Impact Vulnerability**

Understanding future changes that effect vulnerability in the county can assist in planning for future development and ensure establishment of appropriate mitigation, planning, and preparedness measures. The county considered the following factors when examining potential conditions that may affect hazard vulnerability:

- Potential or projected development
- Projected changes in population
- Other identified conditions as relevant and appropriate, including the impacts of climate change

#### Projected Development

Any areas of growth could be impacted by pipeline hazards if located within identified hazard areas. Additionally, an increase in development and population can increase the likelihood of a pipeline incident. The tables and hazard maps included in the jurisdictional annexes in this HMP contain additional information regarding the specific areas of development that would increase county vulnerability to the hazmat incident hazard.

## Projected Changes in Population

Estimated population projections provided by the Center of Rural Pennsylvania indicates that Chester's population will continue to increase into 2040, increasing total population to approximately 603,068 persons (Center of Rural Pennsylvania 2013). Persons that move into pipeline exposure areas are at greater risk to be impacted in the event of a gas or oil release.



## Climate Change

No immediate climate change impacts are associated with the hazard.

## Change of Vulnerability Since the 2015 HMP

Since the 2015 analysis, population statistics have been updated using the 5-Year 2014-2018 American Community Survey Population Estimates. The general building stock was also established using RSMeans 2020 building valuations that estimated replacement cost value for each building in the inventory. Additionally, a critical facility dataset was provided from the county. Overall, exposure and vulnerability of the entire county to pipeline incidents will continue.



Table 4.4-3. Summary of Risk Factor (RF) Approach

Summary of Risk Factor (RF) Methodology									
Risk Assessment			Weight						
Category	Level		Index	Value					
	UNLIKELY	LESS THAN 1% ANNUAL	1						
PROBABILITY What is the likelihood of a hazard event occurring in a given year?	POSSIBLE	BETWEEN 1% & 49.9%	2	30%					
	LIKELY	BETWEEN 50% & 90% A	3	3070					
,	HIGHLY LIKELY	GREATER THAN 90% AN	INUAL PROBABILTY	4					
	MINOR	VERY FEW INJURIES, IF DAMAGE & MINIMAL DI TEMPORARY SHUTDOW	1						
IMPACT In terms of injuries, damage, or death, would you anticipate impacts to be minor, limited, critical, or catastrophic when a significant hazard event occurs?	LIMITED	MINOR INJURIES ONLY. IN AFFECTED AREA COMPLETE SHUTDOWN MORE THAN ONE DAY.	2						
	CRITICAL	MULTIPLE DEATHS/INJU 25% OF PROPERTY IN A DESTROYED. COMPLE FACILITIES FOR MORE T	3	30%					
	CATASTROPHIC	HIGH NUMBER OF DEA' THAN 50% OF PROPERT OR DESTROYED. COMP FACILITIES FOR 30 DAYS	4						
SPATIAL EXTENT	NEGLIGIBLE	LESS THAN 1% OF AREA	AFFECTED	1					
How large of an area	SMALL	BETWEEN 1 & 10.9% OF	2						
could be impacted by a hazard event? Are impacts localized or	MODERATE	BETWEEN 11 & 25% OF	AREA AFFECTED	3	20%				
regional?	LARGE	GREATER THAN 25% OF	4						
WARNING TIME	MORE THAN 24 HRS	SELF-DEFINED	(NOTE: Levels of warning	1					
ls there usually some lead time associated	12 TO 24 HRS	SELF-DEFINED	time and criteria that	2					
with the hazard event? Have warning measures been implemented?	6 TO 12 HRS	SELF-DEFINED	define them may be adjusted based on hazard addressed.)	3	10%				
	LESS THAN 6 HRS	SELF-DEFINED	ada.costaly	4					
DURATION	LESS THAN 6 HRS	SELF-DEFINED SELF-DEFINED	(NOTE: Levels of warning time and criteria that	1 2					
How long does the hazard event usually last?	LESS THAN 1 WEEK	SELF-DEFINED	define them may be adjusted based on hazard	3	10%				
	MORE THAN 1 WEEK	SELF-DEFINED	addressed.)	4					

Source: PEMA 2020



**Table 4.4-4. Risk Ranking for Chester County** 

HAZARD RISK			RISK					
	HAZARDS	PROBABILITY	IMPACT	SPATIAL EXTENT	WARNING TIME	DURATION	FACTOR (RF)	
	Utility Interruption	4	3	4	4	2	3.5	
	Flood, Flash Flood, and Ice Jams	4	4	1	3	3	3.2	
	Opioid Addiction Response	4	4	1	4	1	3.1	
	Pandemic	2	4	4	1	4	3.1	
	Tornadoes and Windstorms	3	3	4	4	1	3.1	
нен	Environmental Hazards – Hazardous Materials Releases	4	3	1	4	2	2.9	
	Invasive Species	4	1	4	1	4	2.8	
	Terrorism	4	3	1	4	1	2.8	
	Winter Storms	3	2	4	1	3	2.7	
	Environmental Hazards - Gas and Liquid Pipeline Incidents	4	2	1	4	2	2,6	
	Drought and Water Supply Deficiencies	3	1	4	1	4	2.5	
	Transportation Accidents	4	1	2	4	1	2.4	
匝	Radon Exposure	3	1	3	1	4	2.3	
ZAT	Earthquake	2	1	4	4	1	2.2	
ODEF	Extreme Temperatures	2	1	4	1	3	2.2	
Σ	Structural Fires	4	1	1	4	1	2.2	
	Hurricane and Tropical Storms	2	1	4	1	3	2.1	
гом	Nuclear Incidents	1	2	2	4	2	1.9	
ro	Dam Failure	1	1	1	3	2	1.3	

Based on these results, there are 11 high-risk hazards, 6 moderate-risk hazards, and 2 low-risk hazards in Chester County. Mitigation actions were developed for all high-risk, moderate-risk, and low-risk hazards (see Section 6.4). The threat posed to life and property for moderate-risk and high-risk hazards is considered significant enough to warrant the need for establishing hazard-specific mitigation actions. Mitigation actions related to future public outreach and emergency service activities are identified to address low-risk hazard incidents.

A risk assessment result for the entire county does not mean that each municipality is at the same amount of risk from each hazard. Table 4.4-5 shows the different municipalities in Chester County and the perception of whether their risk is greater than (>), less than (<), or equal to (=) the RF assigned to the county as a whole, based on feedback from county and municipal officials. Municipal officials' responses were then reviewed and updated (as appropriate) by the Planning Team.



Table 4.4-5. Jurisdictional Risk by Municipality

		_									_							_			
Winter Storm	2.7	11	II	Ш	=	11	11	11	11	II	II	II	=	II	=	II	II	II	=	11	<b>v</b>
Utility Interruption	3.5	11	=	11	=	II	П	11	11	11	II	II	11	II	=	11	II	11	II	Ш	II
Transportation Scridents	2.4	٨	=	٨	<	٨	٨	٨	II	٨	٨	II	П	II	II	٨	=	II	=	^	11
mrotzbniW/obsaroT	3.1	٨	II	=	=	11	٨	II	II	II	П	II	II	11	II	٨	٨	II	11	11	Ш
msirorisT	2.8	. II	II	=	=	П	II	11	11	II	11	11	П	11	II	II	11	11	11	II	11
Structural Fire	2.2	П	=	=	=	П	П	11	II	II	II	II	II	11	-	II	II	11	П	11	11
Radon Exposure	2.3	- 11	II	11	=	11	П	11	II	11	П	II	II	11	II	11	Ш	11	11	II	11
Pandemic and Infectious Disease	3.1	П	=	=	=	II	II	II	=	II	II	II	II	11	11	II	11	II	П	11	11
noitoibbA bioiqO əznoqzəЯ	3.1	- 11	II	II	=	II	II	II	II	II	II	II	II	II	11	II	11	II	II	П	П
Nuclear Incident	1.9	٧	٧	٧	<b>&gt;</b>	٨	v	٧	٧	٧	٧	٨	<b>v</b>	٧	V	٨	<b>v</b>	٨	٨	٨	<b>v</b>
səiəəq8 əvissval	2.8	. 11	11	II	0	11	11	11	11	П	11	П	11	11	I	П	1	11	Ш	П	11
Hurricane Tropical Storm	2.1	II	11	٨	=	٨	II	II	٨	II	11	II	II	٨	٨	II	11	11	11	П	٨
Flooding/Flash Flood/Ice Jam	3.2	. ^	٨	^	<	٧	٨	٨	٨	٧	٧	٨	٧	٨	٧	٨	٧	٨	٨	V	<b>v</b>
Ехігете Тетрегаінге	2.7	٨	^	=	=	П	٨	٨	П	11	٨	11	П	11	II	11	٨	II	11	П	11
Env Hazard Gas and Liquid Pipelines	2.6	^	٧	٧	٨	٨	٧	٧	٧	٨	٨	٧	٧	٨	٧	٧	٧	٨	٨	٨	<b>v</b>
Env Hazard Hazardous Materials Release	2.9	٨	٨	II	٨	11	٨	٨	II	٧	П	<b>v</b>	٧	\ \	II	٧	<b>v</b>	٧	٧	٨	^
Еатирдиаке	2.2	. 11	11	II	11	11	11	11	П	11	-	Ш	П	П	II	П	=	Ш	=	П	=
Drought	2.5	٧	<b>v</b>	٧	>	٧	v	٧	V	٧	٧	٨	٨	٧	٨	٧	٨	V	٨	V	٧
Dam Failures	1.3	٧	<b>v</b>	٨	^	٧	٨	٨	٨	٨	٨	٨	<b>v</b>	11	٧	<b>v</b>	<b>v</b>	٨	<b>v</b>	٧	V
	Municipality	Atglen Borough	Avondale Borough	Birmingham Township	Caln Township	Charlestown Township	Coatesville City	Downingtown Borough	East Bradford Township	East Brandywine Township	East Caln Township	East Coventry Township	East Fallowfield Township	East Goshen Township	East Marlborough Township	East Nantmeal Township	East Nottingham Township	East Pikeland Township	East Vincent Township	East Whiteland Township	Easttown Township

# BOARD OF SUPERVISORS

EAST GOSHEN TOWNSHIP

CHESTER COUNTY 1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199



May 27, 2021

**Dear Property Owner:** 

The purpose of this letter is to inform you that East Goshen Township has received a Zoning Hearing Board Application for 14 Reservoir Rd., West Chester PA 19380. The property owners, Jeffery and Michelle Glosson (Applicant), are seeking dimensional relief from the Township Zoning ordinance regulating "Flag Lots".

The applicant proposes to subdivide the property and create a Flag Lot and to develop that lot with a new single family home. In order to do that, the applicant needs a variance form the Township Zoning Ordinance.

The applicant is specifically seeking relief from §240-23.B(2)(b)[2][e], which requires a minimum width of 40 feet for the "Flag Pole" portion of the flag lot. The applicant is requesting a flag pole width of 24 feet; 16 feet of relief from the requirement. The proposed flag lot meets all other zoning requirements.

Pursuant to Township policy, property owners within 1000 feet of the subject property are notified when Zoning Hearing Board applications are received.

All property owners within 1000 feet of the property are notified of these types of applications. The scheduled public meetings for review and potential approval of this application are as follows, AND ARE SUBJECT TO CHANGE WITHOUT ADDITIONAL WRITTEN NOTICE:

June 2, 2021 - Planning Commission meeting (7:00 pm, virtually via ZOOM)

July 6, 2021 - Board of Supervisors meeting (7:00 pm, virtually via ZOOM)

July 15, 2021 - Zoning Hearing Board hearing (7:00 pm, in-person at the TWP Building)

The ZOOM meeting information for the June 2<sup>nd</sup> and July 7<sup>th</sup> meetings will available on the Township website prior to those meeting dates, go to <a href="www.eastgoshen.org">www.eastgoshen.org</a> to find that information. <a href="mailto:the application materials are available at the Township building for review during normal business hours.">www.eastgoshen.org</a> to find that information. <a href="mailto:the application materials are available at the Township building for review during normal business hours.</a> Call the Township if you have questions on how to observe or participate in the meetings and or the hearing.

Sincerely,

Mark A. Gordon

**Township Zoning Officer**