

# FALCON ETHANE PIPELINE SYSTEM COMMENT DOCUMENT

On January 20, 2018, the Pennsylvania Department of Environmental Protection (“DEP” or “Department”) published notice in the *Pennsylvania Bulletin* regarding the receipt of three applications for Chapter 105 Water Obstruction and Encroachment Permits (DEP File Nos. E02-1773, E04-369 and E63-710), for the Falcon Ethane Pipeline System Project (Project) proposed by Shell Pipeline Company, LP (Shell). The applications are joint permit applications (JPAs) requesting both 105 permits from DEP and Section 404 authorization from the U.S. Army Corps of Engineers for the project.

On February 17, 2018, DEP published notice in the *Pennsylvania Bulletin* regarding the extension of the comment period for the three JPAs until April 17, 2018.

On February 17, 2018, DEP published notice in the *Pennsylvania Bulletin* that the Notice of Intent (NOI) submitted by Shell for authorization under the Chapter 102 Erosion and Sediment Control General Permit for Earth Disturbance Associated with Oil and Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilities (ESCGP-2) for the Project (DEP File No. ESG00007170003) was under technical review, and that DEP was accepting written comments on the ESCGP-2 NOI through April 17, 2018.

During the comment period, DEP also held three public hearings to allow public comment on the Chapter 105 JPAs and the Chapter 102 ESCGP-2 NOI.

This comment response document contains the public comments submitted to DEP by 1,497 commenters during both the public participation process and during the three public hearings.

This comment response document is divided into two parts. The first part contains a table of the commenters that commented during the public comment period. The second part of the document contains the submitted comments and DEP’s responses. (Public comments are listed with the identifying Commenter ID number at the end of the comment. Where multiple commenters expressed

common concerns, the shared concerns are set forth in a general comment and all pertinent Commenter ID numbers are listed after the comment.)

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## General Comments

1. The Department should require additional accurate information from Shell in the Project's cumulative impact on the following:
  - a. Sediment Pollution
  - b. Erosion
  - c. Loss of macroinvertebrate and fish spawning habitats
  - d. Impacts to wildlife, adverse effects to wetlands, marshes and vernal pools (including alteration of vegetation and increased algae growth due to sediment disturbance),
  - e. Permanent removal of riparian and upland vegetation,
  - f. Loss of forest, forest fragmentation, changes in forest ecology and increased edge effect
  - g. Soil compaction
  - h. Increased surface water runoff,
  - i. Reduced groundwater recharge,
  - j. Reduced nutrient cycling capacity and increased algae growth,
  - k. Release of hydrocarbons from heavy equipment leaks and re-fueling,
  - l. Thermal impacts, including from climate change,
  - m. Redirection of groundwater and surface water flows,
  - n. Release of drilling muds,
  - o. Creation of sinkholes,
  - p. Air pollution resulting from methane and other air contaminants,
  - q. Failure of remediation/mitigation efforts including efforts to revegetate construction zones,
  - r. Increased acidification of streams from methane pollution and construction equipment and potential decreased buffering capacity of waterbodies,
  - s. Impacts to recreation, aesthetics, property values and property rights, and
  - t. Impacts to health, safety and the environment.

**Commenter ID:** 22, 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

2. The Mariner East 2 pipeline has had chronic and ongoing water pollution issues that continue to contaminate Pennsylvania streams. Because of this, the commenter is concerned about the Shell Falcon Pipeline and urges extra scrutiny to this application package.

**Commenter ID:** 10, 14, 19, 20, 21, 22, 27, 28, 30, 32, 33, 34, 36, 37, 41, 43, 44, 48, 55, 58, 59, 64, 68, 74, 78, 85, 88, 90, 93, 98, 109, 110, 111, 115, 118, 119, 120, 125, 128, 133, 135, 138, 141, 142, 143, 144, 148, 149, 150, 158, 161, 162, 164, 169, 171, 177, 188, 190, 191, 194, 197, 213, 215, 220, 222, 223, 225, 229, 234, 235, 240, 247, 248, 250, 253, 255, 256, 260, 262, 266, 267, 269, 271, 273, 274, 275, 278, 280, 284, 285, 290, 295, 296, 298, 315, 317, 318, 323, 325, 326, 328, 329, 332, 333, 334, 336, 347, 348, 351, 355, 360, 361, 362, 364, 366, 367, 368, 369, 373, 374, 380, 382, 383, 384, 386, 387, 390, 404, 406, 419, 434, 438, 443, 452, 454, 455, 456, 463, 467, 469, 470, 478, 479, 481, 484, 485, 487, 488, 489, 496, 498, 501, 503, 507, 508, 512, 513, 514, 518, 523, 531, 539, 541, 545, 546, 547, 550, 555, 557, 561, 562, 564, 571, 573, 583, 584, 585, 590, 592, 590, 591, 592, 596, 600, 608, 623, 627, 632, 637, 639, 640, 643, 645, 652, 657, 660, 661, 665, 668, 671, 672, 675, 676, 680, 681, 687, 693, 695, 700, 705, 708, 710, 712, 713, 718, 719, 722, 724, 727, 733, 741, 743, 747, 750, 751, 751, 755, 756, 758, 759, 762, 767, 778, 781, 782, 785, 786, 789, 790, 792, 795, 802, 809, 813, 814, 815, 816, 819, 827, 828, 830, 831, 833, 836, 838, 840, 842, 844, 845, 846, 848, 849, 852, 854, 859, 862, 864, 867, 868, 869, 872, 874, 878, 879, 880, 883, 884, 885, 891, 897, 911, 912, 922, 925, 928, 929, 932, 937, 939, 941, 944, 945, 947, 948, 950, 953, 965, 968, 970, 972, 980, 987, 993, 995, 1003, 1004, 1011, 1015, 1018, 1020, 1025, 1027, 1029, 1030, 1036, 1038, 1039, 1040, 1041, 1043, 1046, 1048, 1049, 1051, 1052, 1060, 1062, 1063, 1065, 1066, 1068, 1070, 1074, 1092, 1093, 1101, 1102, 1107, 1110, 1113, 1114, 1118, 1119, 1121, 1122, 1127, 1135, 1138, 1141, 1145, 1150, 1154, 1156, 1160, 1163, 1164, 1166, 1167, 1173, 1182, 1183, 1194, 1196, 1198, 1206, 1210, 1213, 1216, 1220, 1221, 1224, 1227, 1230, 1241, 1242, 1243, 1245, 1247, 1253, 1254, 1258, 1260, 1261, 1263, 1265, 1266, 1268, 1269, 1270, 1273, 1274, 1275, 1276, 1278, 1279, 1283, 1289, 1294, 1303, 1304, 1306, 1309, 1317, 1318, 1322, 1323, 1326, 1336, 1337, 1338, 1340, 1342, 1352, 1355, 1362, 1363, 1367, 1372, 1379, 1384, 1391, 1401, 1403, 1404, 1418, 1420, 1424, 1425, 1429, 1432, 1436, 1440, 1441, 1444, 1449, 1450, 1452, 1458, 1460, 1461, 1464, 1475, 1480, 1481, 1482, 1485, 1488, 1489, 1493, 1494, 1497

**Response:** After conducting a thorough and comprehensive evaluation of Shell’s applications for the Chapter 102 and Chapter 105 permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining those permits. In addition to concluding that the applications satisfy the Commonwealth’s legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania’s water resources are adequately protected.

3. The project will further pollute our environment and/or will cause climate change.

**Commenter ID:** 5, 37, 74, 99, 208, 298, 299, 324, 348, 405, 407, 411, 440, 466, 482, 490, 511, 534, 549, 651, 652, 732, 743, 744, 749, 763, 765, 793, 824, 832, 848, 855, 893, 902, 904, 943, 955, 1025, 1033, 1044, 1070, 1088, 1098, 1123, 1156, 1162, 1165, 1179, 1219, 1290, 1309, 1351, 1374, 1448, 1488

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

4. DEP should uphold our (state) constitutional rights and its own mission "to protect Pennsylvania's air, land, and water from pollution, and to provide for the health and safety of its citizenry through a cleaner environment" and, thus, should deny the permit.

**Commenter ID:** 1, 5, 6, 26, 54, 63, 67, 86, 97, 105, 167, 178, 186, 191, 214, 254, 295, 312, 341, 354, 399, 414, 418, 432, 439, 440, 444, 471, 473, 475, 491, 502, 516, 519, 540, 552, 566, 574, 585, 594, 662, 703, 728, 730, 732, 764, 766, 794, 825, 851, 860, 886, 893, 913, 955, 961, 963, 998, 1002, 1016, 1021, 1033, 1047, 1088, 1108, 1126, 1165, 1171, 1172, 1229, 1288, 1290, 1301, 1306, 1344, 1400, 1405, 1465, 1466, 1492

**Response:** The Department acknowledges the comment. DEP's review of the applications and issuance of the permits for this project is consistent with applicable statutory and regulatory requirements. These requirements, the Department's thorough and comprehensive review of all the applications submitted to DEP for this project, together with consideration of input from the public and other trustees, as well as the project-specific terms and conditions of the permits, satisfy Article I, Section 27 of the Pennsylvania Constitution. The permits provide reasonable protection for public health and safety and the environment.

5. The pipeline is a private endeavor. If DEP permits this pipeline, they are choosing private industry over public health.

**Commenter ID:** 154, 206, 295, 298, 343, 354, 399, 1309, 1443, 1453

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has a responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

6. The Falcon pipeline would facilitate and accelerate the ongoing push to turn the tristate area of Pennsylvania, Ohio and West Virginia into an epicenter for shale gas development and chemical manufacturing. Transforming ethane into plastics and other products can be toxic, polluting the environment and exposing workers and nearby communities to public health risks.

**Commenter ID:** 37

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has a responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

7. I support this pipeline.

**Commenter ID:** 40, 218, 313, 314, 385, 392, 453, 493, 601, 628, 644, 679, 692, 701, 760, 799, 807, 829, 907, 974, 976, 981, 1058, 1223, 1236, 1349, 1430, 1489

**Response:** The Department acknowledges the comments regarding this proposed pipeline project.

8. I am against the pipeline.

**Commenter ID:** 144, 151, 258, 261, 268, 281, 283, 375, 502, 569, 745, 788, 796, 866, 881, 900, 977, 1012, 1085, 1097, 1191, 1252, 1255, 1391, 1412

**Response:** The Department acknowledges the comments regarding this proposed pipeline project.

9. I have doubts whether there is even need for the Falcon Pipeline and Cracker Plant systems as the world is moving away from plastics.

**Commenter ID:** 92, 490

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

10. When will all documentation, including all technical reports, be completed for this project?

**Commenter ID:** 437

**Response:** The Department placed the application materials, including technical reports, on the Pa Pipeline Portal website for access by the public. When the Department received additional information, it updated the website with that information.

11. I demand a halt to any further construction in relationship to the Shell Cracker Ethane Plant in our region.

**Commenter ID:** 26, 312, 432, 516, 662, 703, 860, 793, 794, 851, 913, 961, 963, 1108, 1171, 1172, 1306, 1344, 1405, 1465

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

12. DEP should stop meting out fines for violations and should start shutting down those operations which violate our permits.

**Commenter ID:** 1131

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Enforcement actions, such as fines and work stoppages, are determined on a case-by-case basis in consideration of the level of non-compliance and other factors.

13. Have the contractors which will build this pipeline been chosen? Are they specialists with experience building gas pipelines?

**Commenter ID:** 1352

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Once selected, the contractor will become a co-permittee under the Chapter 102 permit and the Department will require the contractor to attend a preconstruction meeting.



14. Will the Shell companies (e.g. Shell Pipeline Company) have the resources to pay for any remediation or damages which may occur?

**Commenter ID:** 1400

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Should Shell cause environmental harm during construction of the project, it will be required to remediate that harm.

15. Instead of facilitating Shell's greed, DEP should be forcing them to develop new materials to take the place of conventional plastic.

**Commenter ID:** 1431

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

16. How does the DEP expect to take on permitting enforcement responsibilities associated with the Falcon Pipeline, when at the moment, DEP seems to be lagging in man hours for the enforcement of Mariner East 2?

**Commenter ID:** 448

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Enforcement actions, such as fines and work stoppages, are determined on a case-by-case basis in consideration of the level of non-compliance and other factors. Compliance monitoring and enforcement activities are prioritized and shared among the Department and associated County Conservation Districts.

17. The project could lead to the spread of invasive plant species. Reliance on the use of toxic herbicides in an effort to control these species would merely result in the breeding of an invasive plant that is resistant or adapted to its use.

**Commenter ID:** 440, 1025

**Response:** Upon request from DEP, Shell changed the application to remove invasive species from its planting list. In addition, a permit condition has been included for all permits prohibiting the use of non-native or invasive species for site restoration activities.

## Comments Regarding the Public Process

1. Extend the initial public comment period from 30 to 60 days.

**Commenter ID:** 4, 5, 28, 29, 43, 56, 59, 68, 71, 81, 92, 100, 114, 124, 125, 126, 127, 139, 144, 148, 153, 158, 160, 169, 185, 188, 191, 197, 205, 210, 213, 216, 226, 244, 247, 253, 257, 260, 265, 273, 276, 277, 287, 289, 298, 299, 300, 302, 319, 325, 326, 329, 333, 341, 346, 348, 355, 361, 362, 367, 372, 380, 383, 390, 402, 404, 434, 437, 441, 444, 449, 456, 461, 462, 463, 469, 470, 478, 479, 488, 489, 490, 503, 507, 512, 513, 520, 525, 531, 543, 544, 545, 547, 570, 585, 591, 600, 603, 611, 614, 616, 620, 625, 631, 632, 636, 649, 652, 660, 676, 677, 668, 675, 681, 686, 687, 691, 705, 708, 713, 721, 739, 743, 748, 749, 750, 751, 756, 758, 759, 761, 765, 778, 782, 809, 813, 815, 824, 826, 828, 836, 845, 849, 863, 867, 872, 877, 880, 885, 889, 893, 906, 911, 915, 927, 929, 931, 937, 939, 942, 946, 947, 951, 953, 955, 964, 972, 980, 993, 1003, 1015, 1018, 1025, 1028, 1029, 1040, 1042, 1050, 1051, 1060, 1064, 1069, 1070, 1090, 1091, 1093, 1099, 1106, 1107, 1113, 1120, 1133, 1135, 1141, 1154, 1158, 1159, 1162, 1163, 1183, 1189, 1221, 1224, 1227, 1242, 1245, 1247, 1253, 1258, 1268, 1269, 1277, 1278, 1280, 1283, 1286, 1322, 1323, 1335, 1336, 1338, 1341, 1342, 1352, 1363, 1373, 1378, 1379, 1384, 1391, 1393, 1403, 1404, 1408, 1410, 1411, 1418, 1428, 1436, 1441, 1452, 1455, 1461, 1480, 1486, 1488, 1489, 1490, 1497

**Response:** The Department extended the public comment from 30 days to 60 days.

2. Provide a public meeting/hearing regarding this project.

**Commenter ID:** 4, 5, 8, 16, 28, 29, 43, 56, 59, 67, 68, 71, 81, 100, 124, 125, 114, 126, 127, 139, 144, 148, 153, 158, 160, 169, 178, 185, 186, 188, 191, 197, 205, 210, 211, 213, 216, 226, 244, 247, 253, 257, 260, 265, 273, 276, 277, 287, 289, 298, 299, 300, 319, 325, 326, 329, 333, 341, 346, 348, 355, 361, 362, 365, 367, 372, 380, 383, 390, 400, 402, 404, 424, 434, 437, 441, 444, 449, 456, 461, 463, 469, 470, 475, 478, 479, 488, 489, 490, 503, 507, 512, 513, 520, 525, 531, 543, 544, 545, 547, 570, 574, 585, 591, 600, 603, 611, 614, 616, 620, 625, 631, 632, 636, 649, 652, 660, 668, 675, 676, 677, 681, 687, 691, 705, 708, 713, 721, 739, 743, 748, 750, 751, 756, 758, 759, 761, 765, 778, 782, 809, 813, 815, 824, 826, 828, 836, 845, 849, 863, 867, 872, 877, 880, 885, 889, 893, 906, 911, 915, 927, 929, 931, 937, 939, 942, 946, 947, 951, 953, 955, 964, 972, 980, 993, 1002, 1003, 1008, 1015, 1016, 1018, 1025, 1028, 1029, 1040, 1042, 1047, 1050, 1051, 1060, 1064, 1069, 1070, 1090, 1091, 1093, 1098, 1099, 1106, 1107, 1113, 1120, 1132, 1133, 1135, 1141, 1154, 1158, 1159, 1162, 1163, 1183, 1189, 1221, 1224, 1227, 1242, 1245, 1247, 1253, 1258, 1268, 1269, 1277, 1278, 1280, 1283, 1286, 1301, 1322, 1323, 1335, 1336, 1338, 1341, 1342, 1352, 1363, 1373, 1378, 1379, 1384, 1391, 1393, 1403, 1404, 1408, 1410, 1411, 1418, 1428, 1436, 1441, 1452, 1455, 1461, 1480, 1481, 1486, 1488, 1489, 1490, 1497

**Response:** The Department held three public hearings, one in each county where the project was proposed to be located. The Department held public hearings on April 3, 2018 in Monaca, April 4, 2018 in Burgettstown, and April 5, 2018 in Sewickley.

3. Note that the majority of the speakers that spoke during the public meetings were against the pipeline.

**Commenter ID:** 491

**Response:** The Department reviewed all public comments, including those that were given during the public hearings and those that were submitted by correspondence. The Department has the responsibility to ensure that Shell's applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits. The Department has determined that the applications satisfy the regulatory requirements. The Department also has included special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

4. It is confusing for the common man to determine who has jurisdiction over this pipeline. The DEP should work with other state and federal agencies and/or the state should appoint one state overseeing office to act as the responsible decision-making agency for the project.

**Commenter ID:** 437

**Response:** The Department acknowledges the comments regarding the proposed pipeline project. Although the Department has the responsibility to ensure that Shell's applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and 105 permits, the U.S. Army Corps of Engineers (USACE) also holds decision-making authority for the Chapter 105 Joint Permit Authorizations (JPAs). The Department received input from and conferred with multiple state and federal organizations including the Pennsylvania Department of Conservation and Natural Resources (DCNR), the Pennsylvania Fish and Boat Commission (PFBC), the Pennsylvania Game Commission (PGC), the U.S. Fish and Wildlife Service (USFWS), the Pennsylvania Historical and Museum Commission (PHMC), as well as the Allegheny, Beaver and Washington County Conservation Districts. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to the its safe operation.

5. Is your data available to download?

**Commenter ID:** 25

**Response:** The Department placed the application materials, including technical reports, on the Pa Pipeline Portal website for access by the public. When the Department received additional information, it updated the website with that information.

6. We ask the DEP from this point forward to incorporate new rules requiring all pipeline permit applications from this date forward include geospatial data from operators. This data must be posted to the agency's website, along with all application documents prior to the start of public comment periods. And finally, this data should be integrated into the agency's public mapping tools to expand accessibility and accountability.

**Commenter ID:** 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project.

## Comments Regarding the Application Process

1. According to the Pipeline and Hazardous Material Safety Administration (PHMSA), Shell has been responsible for 194 incidents since 2002.

**Commenter ID:** 89, 154, 208, 295, 303, 489, 491, 585, 652, 766, 813, 886, 893, 1309, 1453

**Response:** The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law.

2. Shell ranks second in nation in the most incidents per mile of maintained pipeline.

**Commenter ID:** 89, 208, 732, 766, 813, 1319, 1443, 1453

**Response:** The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

3. 128 of these incidents (66% of their total incidents) were due to equipment failure, corrosion, welding failure, structural issues, or incorrect operations, all under the company's control.

**Commenter ID:** 89, 208, 732, 813

**Response:** The Department has the responsibility to ensure that Shell’s applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP’s jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell’s applications for those permits and has determined that the applications satisfy the legal requirements. The Department also has included special conditions in the permits to ensure that Pennsylvania’s water resources are adequately protected. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

4. 57 of these incidents occurred somewhere along the pipeline’s right-of-way.

**Commenter ID:** 208, 732, 813

**Response:** The Department has the responsibility to ensure that the applications have satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP’s jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell’s applications for those permits and has determined that the applications satisfy the legal requirements. Also, the Department has included special conditions in the permits to ensure that Pennsylvania’s water resources are adequately protected. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

5. Shell claims that Falcon will be safely “unseen and out of mind” beneath at least 4 feet of cover. At least a third of those incidents occurred beneath 4 feet or more of soil.

**Commenter ID:** 813

**Response:** The Department has the responsibility to ensure that Shell’s applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP’s jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell’s applications for those permits and has determined that the applications satisfy the legal requirements. Also, the Department has included special conditions in the permits to ensure that Pennsylvania’s water resources are adequately protected. Once pipeline construction has commenced and throughout its operation, the federal

Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

6. Shell has some incidents in their past that undermine Shell's good neighbor narrative.

**Commenter ID:** 440, 585, 766, 813, 943, 1025

**Response:** The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. The Department has the responsibility to ensure that Shell's applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. Also, the Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

7. Of 150 incidents that included data about environmental and community impacts, 76 incidents resulted in soil contamination and 38 resulted in water contamination issues.

**Commenter ID:** 813

**Response:** The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. The Department acknowledges the comments regarding this proposed pipeline project. The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the Commonwealth of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. The Department has the responsibility to ensure that the applications have satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. Also, the Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected.

8. 78 incidents occurred in high consequence areas, locations along the pipeline that were identified during construction as having sensitive environmental habitats, drinking water resources, or densely populated areas.

**Commenter ID: 813**

**Response:** The Department performed a review of Shell's compliance history as part of its review of the Chapter 102 and 105 permit applications to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. The Department acknowledges the comments regarding this proposed pipeline project. The Department has the responsibility to ensure that the applications have satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. Also, the Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected.

9. The cost incurred by private citizens and public services totaled more than \$80 million.

**Commenter ID: 89, 491, 813**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project.

10. In Washington County, HDD crossings are listed in the Aquatic Resource Impact Table as having no square footage of either temporary or permanent impact. In contrast, in Beaver and Allegheny Counties they are listed as having permanent impacts but no temporary impacts. The latter is the correct approach and the impact tables and associated fees should be adjusted to reflect the permanent impacts from HDD crossings.

**Commenter ID: 22**

**Response:** DEP received revised Aquatic Resource Impact Tables for each of Shell's applications in Allegheny, Beaver and Washington Counties. These revised tables report a permanent impact area within the "Area within Permanent Right-of-Way" column; however, for most crossings installed using the HDD method, no permanent aboveground impacts are anticipated to aquatic resources.

11. The application contains 18 proposed uses of horizontal directional drilling (HDD).

**Commenter ID: 848**

**Response:** The application contains 15 proposed uses of HDD in Pennsylvania, 13 along the line from the Houston Meter Station to the Junction and 2 along the line from West Virginia to the Junction.

12. The PASPGP-5 form was not filled out correctly.

- a. The project does temporarily and/or permanently greater than 1 acre of water or wetlands and greater than 1000 LF of stream channel, for each county and the project as a whole.

- b. The project does permanently impact greater than 250 LF of streams, rivers etc.
- c. The project does convert greater than 0.1 acre of PFO or PSS wetlands to PEM.

**Commenter ID:** 22, 237

**Response:** The PASPGP-5 form is provided as a tool to assist applicants to determine the federal Section 404 Permit requirements. The Department does not rely on this form for its review of the applications.

13. In the General Information Form, question 13.0, Shell checks “No” as to whether the project will have operational emissions; however, pipelines have valve and meter stations that have fugitive emissions, and those should be included. Additionally, to maintain the pressure of the ethane in the line, there will need to be one or more pumping stations. These stations would produce significant emissions through fugitive leaks, through blowdowns, and, unless they run on electricity, through combustion.

**Commenter ID:** 22

**Response:** Multiple Requests for Determination of Minor Significance (RFDs) have been submitted to the Department, to evaluate whether any air contamination sources associated with this project will require a plan approval. The Department is currently evaluating the RFDs.

14. In the same Form, question 18, Shell Checks “No” as to whether the construction or operation will involve treatment, storage, reuse, or disposal of waste. However, the drilling fluid used in HDD is treated and reused in the circulation process and disposed of after the end of the drilling operations. When inadvertent returns occur, the resulting product is considered an industrial waste which must then be disposed of.

**Commenter ID:** 22

**Response:** All fluids used for drilling must be managed in accordance with the Department’s regulations. Shell’s application contains provisions for management of waste associated with inadvertent returns.

15. The information presented in the application should be presented in a manner which is clear for the general public to understand.

**Commenter ID:** 437

**Response:** The Department acknowledges the comment regarding this proposed pipeline project. The Department has the responsibility to ensure that Shell’s applications satisfy the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP’s jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Department has undertaken a thorough



evaluation of Shell's applications for the Chapter 102 and 105 permits and has determined that the applications satisfy the legal requirements for those permits.

16. Shell's record of pollution and destruction is well documented.

**Commenter ID:** 440, 737, 943, 1033, 1156, 1207

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits which are the subject of this comment period are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. As part of that process, the Department performed a review of Shell's compliance history to ensure that all of Shell's regulated sites within the State of Pennsylvania are in compliance, or in satisfactory progress toward compliance, with applicable law. The Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected.

## Comments Regarding Land and Safety

1. More than 25 miles of the pipeline will be placed within karst landscape, which is known for sinkholes, caves, springs, etc.

**Commenter ID:** 22, 295, 357, 660, 732, 813, 886, 1029, 1160, 1319, 1114, 1143, 1200

**Response:** In its August 1, 2018 response to the DEP's technical review letter, Shell's consultant evaluated the amount of carbonate rock within the proposed pipeline pathway. The findings of the report state that while there are some relatively thin units of limestone within Western Pennsylvania, they are, in general, too thin to have a well-developed karst surface.

2. Working or intersection on steep slopes increases the possibility of landslides or slips.

**Commenter ID:** 448

**Response:** In its August 1, 2018 response to the DEP's technical review letter, Shell's consultant evaluated slope stability and the potential for a landslide along the path of the pipeline. The report included both a desktop review and ground reconnaissance of 65 sites of interest, which the desktop review suggested may have a slope stability risk. Those sites were investigated, and the relative slope stability risk of each site was considered. Additionally, Shell's consultant recommended mitigation measures for maintaining slope stability during construction of the pipeline, as well as operational monitoring techniques for those sites deemed to have a relatively higher slope stability risk.

3. HDD HOU-06 will cross a coal waste site (the Imperial Land Coal Slurry). This area has been undermined, which has had a severe effect on groundwater and surface water in the region. This compounded risk is cause for concern and should be deemed inappropriate for the pipeline to cross.

**Commenter ID:** 813

**Response:** In its HDD Site Specific Construction Alternatives Analysis, within its Inadvertent Returns From HDD: Assessment, Preparedness, Prevention and Response Plan, Shell states that the HDD method was planned at the location/section identified as HOU-06 to avoid disturbance of the Imperial Land Coal Slurry.

4. The Department should require a subsidence analysis before permitting the Pipeline in underground coal mine areas.

**Commenter ID:** 22, 732, 1319

**Response:** Shell provided information regarding the existence of coal seams and mine voids. In its application, Shell provided a mine subsidence analysis within the area of its pipeline. It also developed a plan to address mine subsidence if encountered. The Department will provide this information to PHMSA, the federal agency that oversees pipeline construction and operation with regard to safety. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

5. The information Shell does provide about the mines along its chosen route appears to underreport the extent of existing or potential expansions of mines, as explained in another commenter's Environmental Impact Analysis.

**Commenter ID:** 22

**Response:** Please see the response to number 4 immediately above.

6. Shell indicates that they plan to use existing access. This is not a positive. There are 336 bridges in Beaver County. Four are closed, 42 (12.5%) are structurally deficient. (Pennsylvania Department of Transportation) Whatever the access – existing or new roads -- construction involves heavy equipment, compaction, noise; pollution; degradation to roads and terrain; habitat and stream disturbances and permanent damage.

**Commenter ID:** 1400

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the

applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. In addition, the Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected.

7. 20 miles of the Falcon Pipeline go through undermined area.

**Commenter ID:** 2, 813, 886, 1160

**Response:** Shell provided information regarding existence of coal seams and mine voids within the area of its pipeline within its application. It also developed a plan to address mine subsidence if encountered. The Department will provide this information to PHMSA, the federal agency that oversees pipeline construction and operation with regard to safety. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project.

8. The Falcon Pipeline will be within 1,000 feet of more than 500 homes, 20 businesses, 240 groundwater wells, 12 public parks, 5 schools, 6 day cares and several hiking and biking trails.

**Commenter ID:** 5, 8, 10, 20, 21, 28, 37, 41, 48, 58, 59, 68, 74, 118, 119, 125, 144, 148, 154, 158, 162, 169, 188, 190, 191, 206, 213, 240, 247, 253, 255, 260, 298, 325, 326, 329, 333, 348, 355, 360, 362, 364, 366, 367, 368, 369, 380, 383, 390, 404, 434, 456, 463, 470, 478, 484, 486, 488, 496, 503, 507, 508, 512, 523, 531, 539, 545, 547, 564, 571, 573, 584, 585, 591, 596, 600, 623, 627, 632, 649, 661, 668, 671, 675, 676, 687, 695, 700, 705, 708, 713, 733, 743, 747, 750, 751, 756, 759, 766, 778, 780, 782, 783, 789, 792, 809, 812, 813, 815, 828, 831, 836, 838, 840, 842, 845, 846, 848, 849, 852, 867, 872, 874, 883, 884, 893, 897, 911, 929, 937, 943, 946, 947, 953, 972, 980, 993, 1011, 1015, 1018, 1025, 1029, 1039, 1040, 1049, 1051, 1052, 1060, 1065, 1066, 1070, 1093, 1099, 1107, 1110, 1113, 1135, 1141, 1145, 1150, 1154, 1160, 1163, 1173, 1183, 1210, 1221, 1224, 1227, 1242, 1245, 1247, 1253, 1258, 1268, 1269, 1278, 1309, 1322, 1336, 1338, 1342, 1352, 1363, 1376, 1378, 1379, 1384, 1391, 1403, 1410, 1418, 1436, 1441, 1443, 1452, 1453, 1461, 1480, 1488, 1489, 1497

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. The Department has included special conditions in the permits to ensure that Pennsylvania's water resources are adequately protected.

9. The Falcon Pipeline goes too close (within 50 feet) to three houses.

**Commenter ID:** 22, 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws.

10. The Falcon Pipeline will run straight through the Maronda Homes Housing Development, a luxury housing development, in Findlay Township, Allegheny County. Residents in this development were not notified of Maronda Homes' agreement with Shell prior to purchasing their homes. There are no setback restrictions for building homes either.

**Commenter ID:** 22, 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws.

11. The ethane pipeline has the capacity to explode and puts 186 Allegheny County residents in the blast zone.

**Commenter ID:** 1, 6, 54, 63, 97, 254, 418, 439, 444, 502, 519, 540, 730, 764, 766, 825, 1033, 1466, 1492

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits, which are the subject of this comment period, are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to the pipeline's safe operation.

12. The pipeline crosses the Montour Trail, which is a public resource used by many visitors each year.

**Commenter ID:** 22, 277, 490, 524, 732, 946, 1160, 1374

**Response:** On November 9, 2018, DEP spoke with a representative from the Montour Trail Council who verified that Shell secured an agreement with Montour Trail Council to cross the trail.

13. The pipeline crosses the Panhandle Trail.

**Commenter ID:** 22

**Response:** On November 16, 2018, the Department spoke with the Director of Planning at the Washington County Planning Commission who verified that Shell secured an agreement with the Commission to cross the trail.

14. Shell should consult the Natural Heritage Inventories and identify areas that the Falcon Pipeline could impact.

**Commenter ID:** 22

**Response:** The project is not located within, nor will it directly impact, the Clinton Wetlands Biologically Diverse Area or the Raccoon Creek Landscape Conservation Area in Allegheny County, the Raccoon Creek Floodplain Biologically Diverse Area or the Raccoon Creek Landscape Conservation Area in Washington County, or the Ambridge Reservoir Valleys Natural Heritage Area (NHA) in Beaver County. Shell indicates that approximately 1.6 miles of the project, near the petrochemical plant in Potter Township, Beaver County, is located within the Lower Raccoon Creek NHA. Impacts to a large wetland complex in this NHA and most of the streams that drain to this wetland complex were avoided through a reroute, and very steep slopes were avoided or will be crossed via the HDD method. The majority of Shell's crossing in the Raccoon Creek Valley & Wildflower Reserve NHA, which will be crossed in Independence Township, Beaver County, will utilize HDD. Elsewhere, Shell will use best management practices (BMPs). Shell will implement BMPs and will restore disturbed areas after pipeline installation to minimize the potential for adverse impacts to these NHAs.

15. The pipeline will impact the Raccoon Creek State Park.

**Commenter ID:** 440, 524, 743, 1025

**Response:** The project will not cross Raccoon Creek State Park.

16. The pipeline will include land and water disturbances due to: an unknown number of pumping stations, four proposed metering stations, additional gathering and distribution lines and access roads for construction and maintenance for all infrastructure.

**Commenter ID:** 848

**Response:** The Shell Falcon pipeline application proposes one metering station, located near the confluence of the Scio and Houston lines. No compressor or pump stations will be constructed along

the project route because ethane pipelines do not require compressor stations. All the pressure necessary will be provided at the source by the already permitted facilities. The project authorized under the Chapter 102 and 105 permits does not include gathering and distribution lines. In addition, there are approximately 65 access roads proposed for construction and maintenance of the infrastructure. A special condition is included in the permit requiring Shell to implement and maintain proper erosion and sedimentation control BMPs on all existing access roads.

17. What provisions will be put in place to protect the people, wildlife and habitat around Beaver County Conservation District?

**Commenter ID:** 144

**Response:** In its response to DEP's technical review letter of June 1, 2018, Shell confirmed that a utility line crossing, utilizing the horizontal directional drilling (HDD) method, is proposed to cross Raccoon Creek via a trenchless method to avoid impact to any listed mussel species. The response discusses construction alternatives that were considered for this crossing; however, the consultant determined that other alternatives were not feasible because of additional site constraints, such as steep slopes in the area and the presence of roadways, private water supplies and other aquatic resources. Shell proposed procedures within its "Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan" to avoid and minimize impacts to the regulated waters of the Commonwealth within this project area. Shell will implement BMPs and restore disturbed areas after pipeline installation to minimize the potential for adverse impacts to this area.

18. How close are the shut off valves to Beaver County Conservation District and estimated time of response from Shell? Are the valves automatic or operated by pipeline workers manually?

**Commenter ID:** 144

**Response:** In its response to DEP's technical review letter of August 1, 2018, Shell confirmed that it monitors line pressure 24 hours per day from a monitoring center. There are mainline valves spaced approximately every seven to seven-and-a-half miles apart. The valves can be shut off automatically from the monitoring center immediately, should an issue be detected. Additionally, Shell advised there will be permanent staff living within the Project Area following construction and that staffs' proximity to the pipeline will enable them to quickly respond to any issue.

19. Shell has not gathered sufficient data on the geology of sites where it plans to bore or drill. Geophysical and geotechnical surveys must be conducted and incorporated into plans prior to permit issuance so the Department is able to determine whether the proposed use of trenchless methods is appropriate.

**Commenter ID:** 22, 737, 1391, 1410

**Response:** Shell provided a subsurface investigation of each of the 15 sites in Pennsylvania at which it intends to perform HDD. Each of the subsurface investigations includes a desktop review of published soil information, surficial and geologic conditions, and data from borings drilled along each crossing. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

20. A number of the trenchless crossings transect boundaries of different geological formations. Such locations can be particularly vulnerable to faults, fractures, and increased weathering, all of which can serve as preferential pathways for inadvertent returns and can lead to contamination of groundwater and even sinkholes.

**Commenter ID:** 22

**Response:** Please see the response to Comment 19 above.

21. The Project also traverses limestone in multiple areas and limestone can be vulnerable to sinkholes, voids, and subsidence.

**Commenter ID:** 22, 37

**Response** In its August 1, 2018 response to the DEP's technical review letter, Shell evaluated the amount of carbonate rock within the proposed pipeline pathway. The findings of the report state that while there are some relatively thin units of limestone within Western Pennsylvania, they are, in general, too thin to have a well-developed karst surface.

22. The Department should require Shell to ensure that it knows precisely where all pipelines within the right-of-way are located before it moves ahead with construction, to avoid threats to life and property.

**Commenter ID:** 22

**Response:** Shell has previously been in contact with other petrochemical companies that have oil and gas pipelines in the area in an effort to locate their pipelines and share a right of way with some of them. Before construction, Shell will contact the Pennsylvania One Call System to verify any other utility lines including water lines, sewer lines, telecommunication etc.

23. Possibly complicating the situation, the Revolution 24 Pipeline is a set of gathering lines which may not be regulated like a full pipeline, but may be in close contact with the Ambridge Reservoir and Service Creek.

**Commenter ID:** 1183

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

24. Pipelines are inherently risky. There have been many incidents in the United States within recent history, including leaks, ruptures and explosions.

**Commenter ID:** 37, 223, 407, 440, 462, 763, 813, 939, 1025, 1160, 1165, 1488

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

25. I am concerned about the gas being transported by the pipeline, as it is colorless, odorless, but highly flammable and highly volatile. It is difficult for normal citizens to detect before something potentially catastrophic occurs.

**Commenter ID:** 354

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

26. The original application did not include a geologic study of HDD sites, the location of private water wells, the impacts to the headwaters of the Ambridge Reservoir and the impacts to Independence Marsh.

**Commenter ID:** 29, 43, 71, 100, 126, 127, 139, 148, 197, 210, 216, 276, 277, 287, 289, 361, 402, 441, 444, 449, 461, 469, 479, 531, 543, 603, 614, 625, 636, 691, 713, 739, 758, 761, 765, 942, 993, 1003, 1028, 1042, 1050, 1064, 1091, 1106, 1120, 1158, 1183, 1286, 1323, 1341, 1393, 1404, 1490

**Response:** In its August 1, 2018 response to the DEP's technical review letter, Shell provided a subsurface investigation of each of the 15 proposed HDD sites in Pennsylvania at which it intends to perform HDD. Each subsurface investigation includes a desktop review of published soil information, surficial and geologic conditions, and data from borings drilled in the area of each crossing. Shell used



private well data obtained through the Department of Conservation and Natural Resources' (DCNR) Pennsylvania Groundwater Information System and collected its own data. Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. Additionally, Shell has been in discussion with the Beaver County Conservation District regarding the mitigation of any potential impacts to Independence Marsh. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

## Water Supply Comments

1. Allowing the pipeline to cross three HQ-CWF unnamed tributaries to Service Creek, upstream of the Ambridge Reservoir, puts their clean water at risk.

**Commenter ID:** 2, 3, 7, 9, 11, 12, 13, 15, 17, 18, 22, 24, 31, 35, 38, 39, 42, 45, 46, 47, 49, 50, 51, 52, 53, 56, 57, 60, 61, 62, 64, 65, 66, 67, 69, 70, 72, 73, 75, 76, 77, 79, 80, 82, 83, 84, 86, 87, 91, 94, 95, 96, 101, 102, 103, 104, 105, 106, 107, 108, 112, 113, 116, 117, 118, 121, 122, 123, 129, 130, 131, 132, 134, 136, 137, 140, 145, 146, 147, 152, 155, 156, 157, 158, 159, 163, 165, 166, 167, 168, 170, 172, 173, 174, 175, 176, 178, 179, 180, 181, 182, 183, 184, 186, 187, 189, 192, 195, 196, 198, 199, 200, 201, 202, 203, 206, 207, 209, 212, 217, 219, 221, 223, 224, 226, 227, 228, 229, 230, 231, 232, 233, 236, 237, 238, 239, 242, 243, 245, 246, 248, 249, 251, 252, 258, 259, 263, 264, 269, 270, 272, 279, 280, 286, 288, 293, 294, 297, 301, 304, 305, 306, 307, 308, 309, 310, 311, 316, 320, 321, 322, 323, 324, 326, 327, 330, 331, 335, 337, 338, 339, 340, 342, 343, 344, 345, 349, 350, 352, 353, 356, 358, 359, 360, 363, 364, 370, 371, 376, 377, 378, 379, 381, 388, 389, 391, 393, 394, 395, 396, 397, 398, 399, 401, 403, 406, 408, 409, 410, 412, 413, 414, 415, 416, 417, 420, 421, 422, 423, 424, 425, 427, 428, 429, 430, 431, 433, 435, 436, 440, 442, 443, 445, 446, 447, 450, 451, 457, 458, 459, 460, 464, 465, 468, 470, 471, 472, 473, 474, 475, 476, 477, 479, 480, 483, 486, 492, 494, 495, 497, 498, 499, 500, 504, 505, 506, 510, 515, 517, 519, 521, 522, 526, 527, 528, 529, 530, 531, 532, 533, 535, 536, 537, 538, 542, 544, 548, 551, 553, 554, 556, 558, 559, 560, 563, 565, 566, 567, 568, 572, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 586, 587, 588, 589, 593, 594, 595, 597, 598, 599, 602, 604, 605, 606, 607, 609, 610, 612, 613, 615, 617, 618, 619, 621, 622, 624, 626, 629, 630, 633, 634, 635, 638, 641, 642, 646, 647, 648, 650, 652, 653, 654, 655, 656, 658, 659, 663, 664, 665, 666, 667, 669, 670, 672, 673, 674, 678, 682, 683, 684, 685, 688, 689, 694, 696, 697, 698, 699, 702, 704, 706, 707, 709, 711, 714, 715, 716, 717, 720, 723, 725, 726, 729, 731, 732, 734, 735, 736, 738, 740, 742, 746, 752, 753, 754, 757, 768, 769, 770, 772, 774, 774, 775, 776, 777, 779, 782, 784, 787, 791, 797, 798, 800, 801, 803, 804, 805, 807, 808, 810, 811, 817, 818, 820, 821, 822, 823, 834, 835, 837, 839, 841, 843, 847, 849, 850, 853, 856, 857, 858, 861, 863, 865, 870, 871, 873, 875, 876, 882, 885, 887, 888, 890, 892, 893, 894, 895, 896, 898, 899, 901, 903, 905, 908, 909, 910, 914, 916, 917, 918, 919, 920, 921, 922, 923, 924, 926, 930, 933, 934, 935, 936, 938, 939, 940, 943, 946, 947, 949, 952, 954, 956, 957, 958, 959, 960, 962, 966, 967, 969, 971, 973, 975, 978, 982, 983, 984, 985, 986, 988, 989, 990, 991, 992, 994, 996, 997, 998, 999, 1000, 1001, 1002, 1005, 1006, 1007, 1009, 1010, 1013, 1014, 1016, 1017, 1019, 1021, 1022, 1023, 1024, 1025, 1026, 1029, 1031, 1032, 1034, 1035, 1037, 1045, 1047, 1053, 1054, 1055, 1056, 1057, 1059, 1061, 1067, 1071, 1072, 1073, 1075, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1086, 1087, 1089, 1094, 1096, 1100, 1103, 1104, 1105, 1106, 1109, 1111, 1112, 1115, 1116, 1117, 1124, 1125,

1123, 1126, 1128, 1129, 1130, 1133, 1134, 1136, 1137, 1139, 1140, 1142, 1143, 1144, 1147, 1148, 1149, 1151, 1152, 1153, 1155, 1157, 1161, 1168, 1169, 1170, 1174, 1175, 1176, 1177, 1178, 1180, 1181, 1183, 1184, 1185, 1186, 1187, 1188, 1190, 1192, 1193, 1195, 1197, 1199, 1201, 1202, 1203, 1204, 1205, 1208, 1209, 1211, 1212, 1214, 1215, 1216, 1217, 1218, 1222, 1225, 1226, 1227, 1228, 1231, 1232, 1233, 1234, 1235, 1237, 1238, 1239, 1240, 1244, 1248, 1260, 1251, 1257, 1259, 1262, 1264, 1265, 1267, 1270, 1271, 1272, 1279, 1281, 1282, 1283, 1284, 1285, 1287, 1291, 1292, 1293, 1295, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1305, 1307, 1308, 1310, 1311, 1312, 1313, 1314, 1315, 1320, 1321, 1324, 1325, 1327, 1329, 1331, 1332, 1333, 1334, 1336, 1339, 1345, 1346, 1347, 1348, 1350, 1353, 1354, 1356, 1357, 1358, 1359, 1360, 1361, 1364, 1365, 1366, 1368, 1369, 1370, 1371, 1377, 1378. 1380, 1381, 1382, 1384, 1386, 1387, 1388, 1389, 1394, 1395, 1396, 1397, 1398, 1399, 1402, 1406, 1407, 1409, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1422, 1423, 1426, 1427, 1433, 1434, 1435, 1437, 1438, 1439, 1442, 1445, 1447, 1451, 1454, 1457, 1462, 1463, 1468, 1469, 1470, 1472, 1473 1474, 1476, 1477, 1478, 1479, 1483, 1484, 1487, 1494, 1495, 1496

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

2. Allowing the Falcon pipeline to pass directly under the main raw line from Ambridge Reservoir puts clean water at risk.

**Commenter ID:** 11, 22, 74, 82, 131, 145, 217, 223, 239, 258, 291, 324, 326, 341, 399, 486, 527, 566, 585, 660, 732, 826, 939, 1029, 1123, 1160, 1183, 1466

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. The applicant has increased the depth of the HDD in this area to 31 feet below the referenced waterline. Shell will have a crew on standby in the event that a waterline break were to occur. Also, Shell will have additional pre-stressed concrete pipe repair joints on hand in case of a line break.

3. I am concerned about negative impacts to myself and the approximately 30,000 other people who use the Ambridge Reservoir as their sole drinking water source.

**Commenter ID:** 1, 2, 3, 6, 7, 9, 12, 13, 15, 17, 18, 22, 24, 31, 35, 38, 39, 42, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 56, 57, 60, 61, 62, 63, 65, 66, 69, 70, 72, 73, 74, 75, 76, 77, 79, 80, 82, 83, 84, 87, 91, 94, 95, 96, 97, 101, 102, 103, 104, 106, 107, 108, 112, 113, 117, 121, 122, 123, 129, 130, 132, 134, 144, 146, 137, 140, 146, 147, 152, 153, 155, 156, 157, 158, 159, 163, 165, 166, 168, 170, 172, 174, 175, 176, 179, 180, 181, 182, 183, 184, 185, 187, 189, 192, 195, 196, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 209, 212, 219, 221, 224, 226, 227, 228, 230, 231, 232, 233, 236, 237, 238, 239, 242, 243, 244, 245, 246, 249, 251, 252, 254, 259, 263, 264, 270, 272, 277, 279, 286, 288, 291, 293, 294, 297, 299, 301, 304, 305, 306, 307, 308, 309, 310, 311, 316, 319, 320, 321, 322, 324, 326, 327, 330, 331, 335, 337, 338, 339, 340, 342,

343, 344, 345, 346, 349, 350, 352, 353, 354, 356, 358, 359, 363, 370, 371, 372, 376, 377, 378, 379, 381, 388, 389, 391, 393, 394, 395, 396, 397, 398, 399, 401, 403, 408, 410, 412, 413, 415, 416, 417, 418, 420, 421, 422, 423, 424, 425, 427, 428, 429, 430, 431, 433, 435, 436, 439, 442, 443, 444, 445, 446, 447, 450, 451, 457, 458, 459, 460, 464, 465, 468, 470, 472, 474, 476, 477, 479, 480, 483, 486, 489, 490, 492, 494, 495, 497, 498, 499, 500, 502, 504, 505, 506, 510, 515, 517, 519, 521, 522, 526, 528, 529, 530, 531, 532, 533, 535, 536, 537, 538, 540, 542, 544, 548, 551, 553, 554, 556, 558, 559, 560, 563, 565, 566, 567, 568, 570, 572, 575, 576, 577, 578, 579, 580, 581, 582, 583, 586, 587, 588, 589, 593, 595, 597, 598, 599, 602, 604, 605, 606, 607, 609, 610, 611, 612, 613, 615, 617, 618, 619, 620, 621, 622, 624, 626, 629, 630, 631, 633, 634, 635, 638, 641, 642, 646, 647, 648, 649, 650, 652, 653, 654, 655, 656, 658, 659, 660, 663, 664, 665, 666, 667, 669, 670, 673, 674, 677, 678, 681, 682, 683, 684, 685, 686, 688, 689, 694, 696, 697, 698, 699, 702, 704, 706, 707, 709, 711, 714, 715, 716, 717, 720, 723, 725, 726, 729, 730, 731, 732, 734, 735, 736, 738, 740, 742, 746, 748, 752, 753, 754, 757, 764, 766, 768, 769, 770, 772, 774, 774, 775, 776, 777, 778, 779, 782, 784, 787, 791, 797, 798, 800, 801, 803, 804, 805, 807, 808, 810, 811, 817, 818, 820, 821, 822, 823, 825, 834, 835, 837, 839, 841, 843, 847, 848, 849, 850, 853, 855, 856, 857, 858, 861, 863, 865, 870, 871, 873, 875, 876, 877, 882, 887, 888, 889, 890, 892, 893, 894, 895, 896, 898, 899, 901, 902, 903, 904, 905, 906, 908, 909, 910, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 926, 927, 930, 933, 934, 935, 936, 938, 939, 940, 943, 946, 947, 949, 951, 952, 954, 955, 956, 957, 958, 959, 960, 962, 966, 967, 969, 971, 973, 975, 978, 982, 983, 984, 985, 986, 988, 989, 990, 991, 992, 994, 996, 997, 999, 1000, 1001, 1005, 1006, 1007, 1009, 1010, 1013, 1014, 1017, 1019, 1022, 1023, 1024, 1025, 1026, 1027, 1029, 1031, 1032, 1033, 1034, 1035, 1037, 1045, 1053, 1054, 1055, 1056, 1057, 1059, 1060, 1061, 1067, 1069, 1071, 1072, 1073, 1075, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1086, 1087, 1089, 1090, 1094, 1096, 1100, 1103, 1104, 1105, 1106, 1109, 1111, 1112, 1115, 1116, 1117, 1123, 1124, 1125, 1128, 1129, 1130, 1133, 1134, 1136, 1137, 1139, 1140, 1142, 1143, 1144, 1147, 1148, 1149, 1151, 1152, 1153, 1155, 1157, 1161, 1165, 1168, 1169, 1170, 1174, 1175, 1176, 1177, 1178, 1180, 1181, 1183, 1184, 1185, 1186, 1187, 1188, 1190, 1192, 1193, 1195, 1197, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1208, 1209, 1211, 1212, 1214, 1215, 1216, 1217, 1218, 1219, 1222, 1225, 1226, 1227, 1228, 1231, 1232, 1233, 1234, 1235, 1237, 1238, 1239, 1240, 1244, 1248, 1260, 1251, 1257, 1259, 1262, 1264, 1265, 1267, 1270, 1271, 1272, 1279, 1281, 1282, 1283, 1284, 1285, 1287, 1291, 1292, 1293, 1295, 1297, 1298, 1299, 1300, 1302, 1303, 1305, 1307, 1308, 1310, 1311, 1312, 1313, 1314, 1315, 1320, 1321, 1324, 1325, 1327, 1329, 1331, 1332, 1333, 1334, 1335, 1336, 1339, 1345, 1346, 1347, 1348, 1350, 1353, 1354, 1356, 1357, 1358, 1359, 1360, 1361, 1364, 1365, 1366, 1368, 1369, 1370, 1371, 1373, 1376, 1377, 1380, 1381, 1382, 1384, 1386, 1387, 1388, 1389, 1394, 1395, 1396, 1397, 1398, 1399, 1402, 1406, 1407, 1408, 1409, 1410, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1422, 1423, 1426, 1427, 1428, 1433, 1434, 1435, 1437, 1438, 1439, 1442, 1443, 1445, 1447, 1451, 1453, 1454, 1455, 1457, 1462, 1463, 1466, 1468, 1469, 1470, 1472, 1473, 1474, 1476, 1477, 1478, 1479, 1481, 1483, 1484, 1487, 1492, 1494, 1495, 1496

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR

plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

4. Damage to the Ambridge Reservoir could result in a long-term interruption of water service for all of the customers of the Ambridge Water Authority.

**Commenter ID:** 241

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs, where required. In addition, Shell will utilize the procedures in its HDD/IR plan, to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

5. Application does not mention any measures designed to protect against disruption of the Ambridge Reservoir raw water line.

**Commenter ID:** 22

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. The applicant has increased the depth of the HDD in this area to 31 feet below the referenced waterline. Shell will have a crew on standby in the event that a waterline break were to occur. Also, Shell will have additional pre-stressed concrete pipe repair joints on hand in case of a line break.

6. Ambridge Reservoir only has a 32-hour supply of drinkable water should a catastrophe occur.

**Commenter ID:** 74, 145, 326, 354, 489, 527, 826, 939, 1183, 1253

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. The applicant has increased the depth of the HDD in this area to 31 feet below the referenced waterline. Shell will have a crew on standby in the event that a waterline break were to occur. Also, Shell will have additional pre-stressed concrete pipe repair joints on hand in case of a line break.

7. Pipeline construction will be about two years of disruption to our high-quality water source for the reservoir, private wells and farms.

**Commenter ID:** 1400

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

8. Does Ambridge Water Authority have provisions to protect the water inflow and bank structure? Are there plans for filters for silting or level drops? Will they be in place during construction and after completion?

**Commenter ID:** 1400

**Response:** Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

9. We would like to express concerns that an alternate route which would not have a possible impact on the Ambridge Reservoir has not been considered.

**Commenter ID:** 131, 732, 902

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Shell provided an alternatives analysis stating that it considered over 100 route deviations and chose the proposed path based on considerations of: attempting to co-locate with existing pipeline rights-of-way to the extent practicable; avoiding densely populated areas; avoiding impacts to streams, wetlands and waterbodies to the extent practicable; avoiding state lands (including state parks, state forests, state game lands), local parks, playgrounds, cemeteries and places of congregation), and crossing areas of significant topographic relief, where technically feasible.

10. I am concerned about the project impacts to the Ambridge Reservoir.

**Commenter ID:** 400, 524, 690, 943, 1076, 1159, 1253, 1421, 1431

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to

the Ambridge Reservoir during construction and operation of the pipeline. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

11. We propose a deeper depth of the pipeline and/or other cautionary steps for the Ambridge watershed and the water line.

**Commenter ID:** 1060

**Response:** The applicant has increased the depth of the HDD in this area to 31 feet below the referenced waterline. Shell will have a crew on standby in the event that a waterline break were to occur. Also, Shell will have additional pre-stressed concrete pipe repair joints on hand in case of a line break. While the pipeline will not cross the reservoir, Shell will implement BMPs in its E&S Plan and procedures in its HDD/IR plan to avoid and minimize impacts to this reservoir and the watershed that feeds the reservoir. Shell will implement the BMPs in its E&S Plan including antidegradation best available combination of technologies (ABACT) BMPs where required. In addition, Shell will utilize the procedures in its HDD/IR plan to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth. Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline.

12. Shell must be required to provide pre and post construction water testing to well owners.

**Commenter ID:** 672

**Response:** Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

13. The pipeline should be set back from water well and well owners should be notified, especially when HDD is taking place near these wells.

**Commenter ID:** 22

**Response:** Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, provides that before HDD activities begin, all landowners within the 450-foot radius of each HDD will be notified and offered pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring in this regard. Shell also will offer all property owners with water supplies within the 150-foot radius of the pipeline centerline pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense.

14. In the map files submitted as part of the application, Shell lists 20 private water wells. This information appears to come from the PaGWIS system, which is notoriously incomplete and often inaccurate. Field surveying of well locations and landowner outreach is needed to ensure wells are identified and protected.

**Commenter ID:** 22, 813

**Response:** Shell used private well data obtained through the Department of Conservation and Natural Resources' (DCNR) Pennsylvania Groundwater Information System and collected its own data. Shell did not solely rely on the DCNR system. Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

15. The Falcon's route runs near 8 protected drinking water areas.

**Commenter ID:** 37

**Response:** The Department consulted with Shell to verify that all 13 public water systems within 1 mile of the proposed pipeline have been identified. Shell contacted each of the public water systems to determine how many people they serve and what each water system would need if it were negatively impacted by pipeline construction. As part of its applications, Shell submitted an Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan which includes pre- and post-construction monitoring for all public water systems.

16. I am concerned about the potential impact of the Falcon Pipeline on nearby well water.

**Commenter ID:** 253, 732, 813

**Response:** Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

17. The application makes no mention of other water wells within the watershed of the Ambridge Reservoir.

**Commenter ID:** 732

**Response:** The Department consulted with Shell to verify that all 13 public water systems within 1 mile of the proposed pipeline have been identified. Shell contacted each of the public water sources to determine how many people they serve and, what each water source would need if it were negatively impacted. Shell submitted an Inadvertent return plan which proposed pre- and post- construction monitoring for all public water sources. Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

18. Over 100 private wells are recharged by the Service Creek Watershed which drains into the Ambridge Reservoir.

**Commenter ID:** 1283

**Response:** Shell used private well data obtained through the Department of Conservation and Natural Resources' (DCNR) Pennsylvania Groundwater Information System and collected its own data. Shell did not solely rely on the DCNR system. Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such



landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

19. Has the DEP determined that our aquifers and well water will not be impacted by the proposed placement of this massive pipeline?

**Commenter ID:** 214

**Response:** The Department consulted with Shell to verify that all 13 public water systems within 1 mile of the proposed pipeline have been identified. Shell contacted each of the public water sources to determine how many people they serve and what each water source would need if it were negatively impacted. Shell submitted an Inadvertent Return plan which proposed pre- and post- construction monitoring for all public water sources. Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

20. DEP should require Shell to pursue an alternative route that wouldn't cross any areas near a drinking water supply.

**Commenter ID:** 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to the administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits which are the subject of this comment period are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for those permits and has determined that the applications satisfy the legal requirements. Shell provided an alternatives analysis stating that it considered over 100 route deviations and chose the proposed path based on considerations of: attempting to co-locate with existing pipeline rights-of-way to the extent practicable; avoiding densely populated areas; avoiding impacts to streams, wetlands and waterbodies to the extent practicable; avoiding state lands (including state parks, state forests, state game lands), local parks, playgrounds, cemeteries and places of congregation; and crossing areas of significant topographic relief, where technically feasible.

21. The Joseph C. Bacon Dam, a high hazard dam, is the head of the Ambridge Reservoir. Unsafe drilling of pipelines could cause the Joseph C. Bacon Dam to fail and flood the downstream townships.

**Commenter ID: 1183**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Joseph C. Bacon Dam is approximately 1 mile away from the proposed area of construction for the pipeline. Construction of the pipeline is not anticipated to have an impact on the dam.

22. There are two points at which the proposed route crosses an active water line via conventional boring. See Site Restoration Plans, Sheets 49 and 133. This should be avoided entirely when possible, as a disruption of a water supply can adversely impact thousands of residents within the area.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Shell provided an alternatives analysis stating that they considered 100 different paths, and chose the path they are proposing based on considerations of: attempting to co-locate with existing pipeline rights-of-way to the extent practicable; avoiding densely populated areas; avoiding impacts to streams, wetlands and waterbodies to the extent practicable; avoiding state lands (including state parks, state forests, state game lands), local parks, playgrounds, cemeteries and places of congregation; and crossing areas of significant topographic relief, where technically feasible.

23. Has an environmental study identified problems with springs, water wells, etc.

**Commenter ID: 144**

**Response:** Appendix C of Shell's Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

24. Based on local geography, I am concerned about the potential for drilling to cause methane and ethane around my well to migrate.

**Commenter ID: 1207**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this

project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

## Comments Regarding the Chapter 102 Application

1. How deep will the pipe be around Beaver County Conservation District?

**Commenter ID:** 144

**Response:** Shell will utilize both open trench and HDD construction practices on the Beaver County Conservation District property. For the open trench portion, the pipeline will be installed at a depth of approximately 5 feet. The HDD crossing will be installed at a maximum depth of approximately 50 feet below Raccoon Creek.

2. Shell should be more active in ensuring the restoration of the surrounding areas rather than simply passively letting disturbed nature take its course.

**Commenter ID:** 22

**Response:** Shell's Chapter 102 application and permit call for post-construction site restoration along the pipeline route. Shell will reseed the disturbed areas in accordance with the terms of its permit, to restore the area affected by pipeline construction and the pipeline right-of-way. All restored areas will be monitored until permanent vegetation is established.

3. Restoration of upland ecosystems requires more than simply the dispersal of grass and forb seeds in most instances. This is a long-term impact that cannot be considered merely "temporary".

**Commenter ID:** 22

**Response:** Shell's Chapter 102 application and permit call for post-construction site restoration along the pipeline route. Shell will reseed the disturbed areas in accordance with the terms of its permit, to restore the area affected by pipeline construction and the pipeline right-of-way. All restored areas will be monitored until permanent vegetation is established.

4. The limits of disturbance at the bend in Beaver JPA Req. K, Sheet 21 of 54 appear needlessly broad on a steep slope.

**Commenter ID:** 22

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The

Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

5. The limits of disturbance in Beaver JPA Req. K, Sheet 28 of 54 contain a long area with no indicated purpose. It is unclear what this is. If it is an HDD pullback area, there should be a convincing explanation of why HDD pullback cannot be done along the right-of-way at this location.

**Commenter ID:** 22

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

6. The limits of disturbance in Beaver JPA Req. K, Sheet 29 of 54 overlap what appears to be an existing building, and do not appear to cover the full footprint of the meter station.

**Commenter ID:** 22

**Response:** Shell provided updated drawings to expand the limit of disturbance.

7. DEP should require Shell to ensure strong erosion and sedimentation controls along sensitive areas of the route.

**Commenter ID:** 10, 20, 21, 41, 48, 58, 118, 119, 144, 148, 162, 190, 240, 255, 360, 364, 366, 368, 369, 484, 496, 508, 523, 539, 564, 571, 573, 584, 596, 623, 627, 661, 668, 671, 687, 695, 700, 708, 713, 733, 747, 780, 783, 789, 792, 831, 838, 840, 842, 846, 852, 874, 883, 884, 897, 993, 1011, 1039, 1049, 1052, 1065, 1066, 1110, 1145, 1150, 1173, 1210, 1253

**Response:** Both the county conservation districts and the Department have reviewed the proposed erosion and sediment control best management practices (BMPs) throughout the project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining a Chapter 102 permit associated with this project. In special protection watersheds, Shell will utilize ABACT BMPs.

8. Erosion control needs special attention at some of these steep slope locations. For example, in Chartiers Township, Washington County, SS05 - Resource Crossing #4, much of the right-of-way is steep slope pooling to a wetland. That could very easily receive heavy sediment load and fill up, especially if Shell deforests the forested slope.

**Commenter ID:** 22

**Response:** Both the county conservation districts and the Department have reviewed the proposed erosion and sediment control best management practices (BMPs) throughout the project. This review included ensuring that the submitted perimeter controls were properly sized as per the Pennsylvania Erosion and Sediment Pollution Control Program Manual. The Department determined that the perimeter controls, including those designated for steep slope areas, have been properly sized to reduce the potential for accelerated erosion and sedimentation along the route of the project and that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining a Chapter 102 permit associated with this project.

9. One commenter has provided a table of slopes of pipeline that would exceed 30° [which is equal to 57.7%] slope. These areas are of particular concern as they are more prone to erosion and harder to build upon. It is important that the Department give these areas particular scrutiny when examining erosion and sediment controls and require the most conservative controls available.

**Commenter ID: 22**

**Response:** Both the county conservation districts and the Department have reviewed the proposed erosion and sediment control best management practices (BMPs) throughout the project. This review included ensuring that the submitted perimeter controls were properly sized as per the Pennsylvania Erosion and Sediment Pollution Control Program Manual. The Department has determined that the perimeter controls, including those designated for steep slope areas, have been properly sized to reduce the potential for accelerated erosion and sedimentation along the route of the project and that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining a Chapter 102 permit associated with this project.

10. 25 Pa. Code § 102.14 mandates protections for Pennsylvania’s vital riparian buffers. In its riparian buffer waiver discussion in its 102 App. Notice of Intent, Shell seeks exemption due to the project being of a temporary nature and a linear project.
  - a. Regarding the temporary nature of the project, first, Shell acknowledges that it is putting in a permanent facility within a riparian buffer area. Second, the sites will not be fully restored to pre-existing conditions, as many areas will be permanently deforested, including riparian forest buffers.
  - b. Regarding the linear nature of the project, the Pipeline is indeed a linear project. However, the Department may only apply this exemption upon “a demonstration by the applicant that there are reasonable alternatives for compliance with this section, so long as any existing riparian buffer is undisturbed to the extent practicable and that the activity will otherwise meet the requirements of this chapter.”

**Commenter ID: 22**

**Response:** In accordance with Chapter 102 of the regulations, Shell’s application satisfies the requirements for a waiver. After conducting a thorough evaluation of Shell’s application for the Chapter 102 permit, the Department has determined that Shell has satisfied the applicable Commonwealth

statutory and regulatory requirements for obtaining the permit.

11. Other pipeline projects including Mariner East 2 and Atlantic Sunrise have proposed approaches to reduce impacts to nearby riparian buffers, but Shell is not proposing any such commitment to protect riparian buffers.

**Commenter ID:** 22

**Response:** In accordance with Chapter 102 of the regulations, Shell’s application satisfies the requirements for a waiver. After conducting a thorough evaluation of Shell’s application for the Chapter 102 permit, the Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the permit.

12. Shell asserts there will be “no surficial impacts” to the eleven streams, seven wetlands, and eleven floodways it intends to cross using conventional bore or HDD. While these construction methods can greatly reduce surface impacts, to say there will be no surface impacts is at best an oversimplification and possibly a significant misrepresentation. Additional area needed for pull back and staging areas, the location of that additional area in relation to waterways, associated runoff, and inadvertent returns, can all have surface impacts.

**Commenter ID:** 22

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The pull-back areas and staging areas required for HDD and boring are included within the limit of disturbance. All areas and resources impacted by Shell will be restored or mitigated in accordance with the requirements of Chapter 102 and 105 of the regulations and permits. In addition, Shell’s application included an “Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan” to address any potential inadvertent returns.

13. Section 11.2 of the SR Plan provides for notice to the Department in the event Shell finds an inoperative or ineffective BMP during inspection. The drafting of this protocol suggests the notice is optional.

**Commenter ID:** 22

**Response:** The Chapter 102 permit contains a condition requiring Shell to notify the Department or conservation district if it finds a BMP to be inoperative or ineffective during an inspection.

14. Shell should invite landowners to be a part of the preconstruction meeting as, first, landowners are often in the best position to know and explain any concerns specific to their property that may have been overlooked in planning process, and, second, it is important that landowners are given an opportunity to understand the details of what will be happening on their property and to have their questions answered.

**Commenter ID: 22**

**Response:** Chapter 102 specifies that the permittee must invite the Department or conservation district to a preconstruction meeting.

15. Shell's Site Restoration Plan includes the Tall Fescue, a grass on the DCNR Invasive Plant List.

**Commenter ID: 22**

**Response:** Shell's Chapter 102 Permit includes a permit condition that requires all disturbed areas to be replanted or seeded with native and non-invasive species.

16. A wheel washing station needs to be set up for construction sites.

**Commenter ID: 1283**

**Response:** Wheel wash stations are required for construction entrances in special protection watersheds and areas where there is an impaired water with an approved TMDL for siltation. Shell's Erosion and Sediment Control Plan Detail includes a requirement that for ABACT streams (streams with a Chapter 93 designation of High Quality (HQ), or exceptional value (EV)) a wash rack is necessary. In addition, the Department has included a special condition requiring ABACT controls where necessary.

17. Has the potential that global warming could lead to more severe flooding been considered in any application?

**Commenter ID: 1352**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to the administration and enforcement of the applicable environmental laws.

18. In its Application Completeness Checklist, Shell claims that it is not required to submit a "hydrologic and hydraulic analysis." However, 25 Pa. Code § 102.8(f)(4) requires that it submit a PCSM plan including "[a]n identification of the net change in volume and rate of stormwater from preconstruction hydrology to post construction hydrology for the entire project site and each drainage area." Shell's PCSM Plan, called its Site Restoration, or SR Plan, does not contain such an analysis.

**Commenter ID: 22**

**Response:** Shell’s site restoration plan is separate from the hydrologic and hydraulic analysis required in Chapter 105 permit, as the Chapter 105 permit determines the impacts of encroachments upon the floodway. The proposed project does not directly increase elevations within the floodway as the pipeline passes under the floodway.

Shell proposes to restore disturbed areas to meadow in good condition, and post-construction stormwater analyses are not required for areas that are restored. Shell proposed one above ground facility that did require a hydrologic and hydraulic analysis, which was included in its Chapter 102 permit application, and PCSM BMPs will be constructed.

19. The applications for Allegheny, Beaver, and Washington Counties state that the “Total Disturbed Acreage” from the Project in those counties will be 110.12 acres, 305.39 acres, and 192.47 acres—or nearly 608 acres overall. However, based on a fastidious review of Shell’s own data and other public sources, one commenter estimates more than twice as much total disturbed acreage, 1,273 acres for construction space and another 650 acres for the permanent right-of-way.

**Commenter ID:** 22

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. The acreage of the project is considered when determining if a permit is required. During the review, the Department evaluated BMPs for the areas disturbed and determined that they are adequate.

20. How will temperature impacts due to loss of tree canopy be avoided or minimized?

**Commenter ID:** 1352

**Response:** According to the Notice of Intent (NOI) submitted with the Chapter 102 application, Shell will avoid thermal impacts associated with this project through: use of best management practices (BMPs) to allow runoff to be reintroduced as sheet flow; immediate revegetation when earth disturbance is complete; reduction of the rights of ways in resource areas; minimization of impervious surfaces; maximization of use of vegetated areas to cool runoff prior to discharge; and use of boring and HDD, which will minimize disturbance to existing vegetation.

## Comments Regarding the Chapter 105 Applications

1. Numerous commenters provided general comments that the Falcon Pipeline will cross multiple streams.



**Commenter ID:** 10, 14, 19, 20, 21, 27, 30, 32, 33, 34, 36, 41, 43, 44, 48, 55, 58, 64, 78, 85, 88, 90, 93, 98, 109, 110, 111, 115, 118, 119, 120, 128, 133, 135, 138, 141, 142, 143, 144, 148, 149, 150, 161, 162, 164, 171, 177, 190, 194, 197, 215, 220, 222, 225, 234, 235, 240, 248, 250, 255, 256, 262, 266, 267, 269, 271, 274, 275, 278, 280, 284, 285, 290, 295, 296, 315, 317, 318, 323, 324, 328, 332, 334, 336, 347, 351, 360, 361, 364, 366, 368, 369, 373, 374, 382, 384, 386, 387, 406, 419, 438, 443, 452, 454, 455, 467, 469, 479, 481, 484, 485, 487, 496, 498, 501, 508, 514, 518, 523, 539, 541, 546, 550, 555, 557, 561, 562, 564, 571, 573, 583, 584, 590, 592, 596, 608, 623, 627, 637, 639, 640, 643, 645, 657, 661, 665, 668, 671, 680, 681, 687, 693, 695, 700, 708, 710, 712, 713, 718, 719, 722, 724, 727, 733, 741, 747, 751, 755, 758, 762, 767, 780, 781, 783, 785, 786, 789, 790, 792, 795, 802, 812, 813, 814, 816, 819, 827, 830, 831, 833, 838, 840, 842, 844, 846, 848, 852, 854, 859, 862, 864, 868, 869, 872, 874, 878, 879, 880, 883, 884, 891, 897, 912, 922, 925, 928, 932, 939, 941, 944, 945, 948, 950, 953, 965, 968, 970, 987, 993, 995, 1003, 1004, 1011, 1015, 1020, 1030, 1036, 1038, 1039, 1041, 1043, 1046, 1048, 1049, 1052, 1062, 1063, 1065, 1066, 1068, 1074, 1092, 1101, 1102, 1106, 1110, 1114, 1118, 1119, 1121, 1122, 1127, 1138, 1145, 1150, 1156, 1160, 1164, 1166, 1167, 1173, 1182, 1194, 1196, 1198, 1206, 1210, 1213, 1216, 1220, 1230, 1241, 1243, 1247, 1253, 1254, 1256, 1260, 1261, 1263, 1265, 1266, 1269, 1270, 1273, 1274, 1275, 1276, 1279, 1282, 1289, 1294, 1296, 1303, 1304, 1306, 1309, 1317, 1318, 1323, 1326, 1327, 1328, 1330, 1337, 1340, 1341, 1343, 1351, 1352, 1355, 1362, 1366, 1367, 1372, 1376, 1383, 1390, 1392, 1401, 1404, 1420, 1424, 1425, 1429, 1432, 1440, 1443, 1444, 1446, 1449, 1450, 1453, 1458, 1460, 1464, 1467, 1471, 1475, 1482, 1485, 1493, 1494

**Response:** The Department acknowledges the comment that the pipeline will cross a number of streams. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 105 permits for stream crossings.

2. Numerous commenters provided general comments that the Falcon Pipeline will cross multiple wetlands.

**Commenter ID:** 10, 14, 19, 20, 21, 27, 30, 32, 33, 34, 36, 41, 43, 44, 48, 55, 58, 64, 78, 85, 88, 90, 93, 98, 109, 110, 111, 115, 118, 119, 120, 128, 133, 135, 138, 141, 142, 143, 144, 148, 149, 150, 161, 162, 164, 171, 177, 190, 194, 197, 215, 220, 222, 225, 234, 235, 240, 248, 250, 255, 256, 262, 266, 267, 269, 271, 274, 275, 278, 280, 284, 285, 290, 295, 296, 315, 317, 318, 323, 324, 328, 332, 334, 336, 347, 351, 360, 361, 364, 366, 368, 369, 373, 374, 382, 384, 386, 387, 406, 419, 438, 443, 452, 454, 455, 467, 469, 479, 481, 484, 485, 487, 496, 498, 501, 508, 514, 518, 523, 539, 541, 546, 550, 555, 557, 561, 562, 564, 571, 573, 583, 584, 590, 592, 596, 608, 623, 627, 637, 639, 640, 643, 645, 657, 661, 665, 668, 671, 680, 681, 687, 693, 695, 700, 708, 710, 712, 713, 718, 719, 722, 724, 727, 733, 741, 747, 751, 755, 758, 762, 767, 780, 781, 783, 785, 786, 789, 790, 792, 795, 802, 812, 813, 814, 816, 819, 827, 830, 831, 833, 838, 840, 842, 844, 846, 848, 852, 854, 859, 862, 864, 868, 869, 872, 874, 878, 879, 880, 883, 884, 891, 897, 912, 922, 925, 928, 932, 939, 941, 944, 945, 948, 950, 953, 965, 968, 970, 987, 993, 995, 1003, 1004, 1011, 1015, 1020, 1030, 1036, 1038, 1039, 1041, 1043, 1046, 1048, 1049, 1052, 1062, 1063, 1065, 1066, 1068, 1074, 1092, 1101, 1102, 1106, 1110, 1114, 1118, 1119, 1121, 1122, 1127, 1138, 1145, 1150, 1156, 1160, 1164, 1166, 1167, 1173, 1182, 1189, 1194, 1196, 1198, 1206, 1210, 1213, 1216, 1220, 1230, 1241, 1243, 1247, 1253, 1254, 1256, 1260, 1261, 1263, 1265, 1266, 1269, 1270, 1273, 1274, 1275, 1276, 1279, 1282, 1289, 1294, 1296, 1303, 1304, 1306, 1309, 1317, 1318, 1323, 1326, 1327, 1328, 1330, 1337, 1340, 1341,

1343, 1351, 1352, 1355, 1362, 1366, 1367, 1372, 1376, 1383, 1390, 1392, 1401, 1404, 1420, 1424, 1425, 1429, 1432, 1440, 1443, 1444, 1446, 1449, 1450, 1453, 1458, 1460, 1464, 1467, 1471, 1475, 1482, 1485, 1493, 1494

**Response: Response:** The Department acknowledges the comment that the pipeline will cross a number of streams. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining the Chapter 105 permits for stream crossings.

3. The Falcon Pipeline is proposed to go through Independence Marsh, a mitigation wetland designed to compensate for loss of wetland by the Pittsburgh International Airport expansion.

**Commenter ID:** 22, 732, 1029, 1200

**Response:** Shell proposes to utilize the horizontal directional drilling (HDD) method at this location. Shell considered construction alternatives for this crossing but determined that other alternatives were not feasible, due to additional site constraints, such as steep slopes in the area, and the presence of other roadways, private water supplies and other aquatic resources. Shell will implement procedures within its “Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan,” to avoid and minimize impacts to the regulated waters of the Commonwealth, within this project area. The Department has concluded that Shell has satisfied the regulatory requirements.

4. 10 of the streams being crossed are designated trout stocked (TSF) and three of which are listed as cold-water fisheries (CWF).

**Commenter ID:** 22

**Response:** The Department acknowledges the comment that the pipeline will cross a number of streams, some of which are designated as TSF. The Department determined that the crossings met the Commonwealth statutory and regulatory requirements for obtaining Chapter 105 permits for the TSF crossing.

5. Beaver County SS111, Resource Crossing #20: The valve site is planned to sit squarely in the center of a wetland which it would permanently fill. The access road to the valve site would also fill the wetland. The plan makes clear that moving the valve site slightly left as the plan is oriented would avoid the wetland without needing to change the plans significantly.

**Commenter ID:** 22

**Response:** The valve site was moved to the north side of Moores Road and is no longer in Wetland W-PA-161202-MRK-002 (Beaver County SS111, Resource Crossing #20).

6. Beaver County SS165, Resource Crossing #75 – Stream fill is planned due to the placement of a valve site and associated access road. There is no apparent obstacle to the valve site being moved laterally

a small amount to avoid stream fill here.

**Commenter ID: 22**

**Response:** This watercourse developed from runoff from Cowpath Road, after a culvert underneath this roadway became damaged. The damaged culvert has since been repaired and no longer conveys water under normal conditions.

7. Beaver County SS180, Resource Crossing #91 and #92 -The Department should require Shell to justify why the pipeline could not be adjusted southward to avoid two stream crossings. Also, the left trench plug on the right-hand stream crossing appears misplaced, and there are no trench plugs protecting the left-hand stream crossing.

**Commenter ID: 22**

**Response:** Shell has indicated that shifting the pipeline route southward would impact a PSS wetland. The E&S drawing has been revised to show trench plugs at RC-92.

8. Beaver County, SS191, Resource Crossing #102: The Department should require Shell to justify why the right-of-way could not be adjusted eastward to avoid the convergence of multiple streams.

**Commenter ID: 22**

**Response:** The route was chosen to meet Shell's criteria of collocating in or near existing rights of way. In order to reduce the impacts, the LOD at the Resource Crossing #102 has been reduced to 50 feet. Shell will utilize a joint drag section method during construction, to reduce impacts at this location.

9. Washington County, SS016, Resource Crossing #15: Shell plans to trench through what appears to be a headwaters. The Department should require extra precautions to be taken to avoid disrupting the headwaters.

**Commenter ID: 22**

**Response:** The Department has determined Shell's erosion and sediment control plan which contains best management practices to be implemented at stream crossings is adequate to protect watercourses including headwaters.

10. HOU-TAR-49 in Beaver JPA Req. K, Sheet 50 of 54, appears to be paralleling and on top of a creek. The access road should be adjusted northward to avoid filling in the creek. Also, no resource crossing map is given for the crossing of those creeks by HOU-TAR-49.

**Commenter ID: 22**

**Response:** HOU-TAR-49 is not a new impact. It is an existing access road that will be utilized by Shell.

11. A trenchless crossing method may be more appropriate for the sequence of crossings RC-99 through RC-102.

**Commenter ID:** 22

**Response:** Shell's decision to use the open cut method for crossings RC-99 through RC-102 meets the applicable Commonwealth statutory and regulatory requirements. In order to reduce the impacts, Shell has reduced the LOD to 50 feet and will utilize a joint drag section method at crossings RC-101 and RC-102.

12. RC - 24 in Washington JPA Req. K, Sheet 17 of 39 should be done perpendicularly, not roughly parallel as it is now. This takes out a needlessly large area of stream and riparian forest buffer.

**ID:** 22

**Response:** Shell will implement a joint-drag section method at RC-24, which will provide a reduction in the width of the LOD, to minimize impacts at RC-24.

13. Wetlands that drain into Raccoon Creek will be particularly vulnerable in two locations:
- a. In Potter Township, where the pipeline will run along a wooded ridge, which is susceptible to landslides. Area is characterized by USGS as a high hazard area for soil erosion.
  - b. In Independence Township. Pipeline will go under the creek using an HDD, however workspace needed to execute the HDD crossing is actually within a wetland. (See AECOM Figure 3, Sheet 38 of 54 – Photo Location Map.

**Commenter ID:** 813

**Response:** Commenter's description in "a" above is unclear. Shell has conducted a slope stability investigation and has developed mitigation measures for use at locations that it characterized into relative slope stability risk categories to address landslide susceptibility.

Regarding the area that is described in the commenter's item "b," above, Shell proposes to utilize the horizontal directional drilling (HDD) method to cross Raccoon Creek to avoid impact to any listed mussel species. Shell considered construction alternatives for this crossing but determined that other alternatives were not feasible, due to additional site constraints, such as steep slopes in the area, and the presence of other roadways, private water supplies and other aquatic resources. Shell will implement procedures within its "Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan," to avoid and minimize impacts to the regulated waters of the Commonwealth, within this project area. The Department has concluded that Shell has satisfied the regulatory requirements.

14. Beaver County SS089, Resource Crossing #1: This is a good candidate to consider HDD.

**Commenter ID:** 22

**Response:** Shell's decision to use the open cut method for crossings RC-1 meets the applicable Commonwealth statutory and regulatory requirements. In order to reduce the impacts at crossing RC-1, Shell has reduced the LOD to 25 feet.

15. Beaver County SS158, Resource Crossing #67: The depicted pond spanning nearly the full width of the right-of-way is in danger of being severely damaged by the trench crossing and slope clearing on either side. The construction will likely cause turbulence and sedimentation in the pond for extended periods of time which may kill the plants and animals which use the pond as habitat. Additionally, the resource may be plotted incorrectly. The span crossed by a timber mat may need a full bridge rather than just a mat due to its width, but no bridge is depicted. Furthermore, contour lines run through the pond. It is unclear whether those are meant to describe the depth of the pond, but this might be error. A wetland indicator also overlaps the depicted pond area, which also appears to be contradictory.

**Commenter ID:** 22

**Response:** Shell described this resource as Cowardin Classification PUB, and has provided a revised drawing, showing that the proposed pipeline will be installed a minimum of 4 feet below the bottom of this pond. The pond will be refilled following construction. Timber mat is adequate for the crossing as depicted in the plan.

16. Beaver County SS164, Resource Crossing #74: Tens of thousands of square feet of wetland are proposed to be cleared and occupied for an HDD staging area and a drill pit will be dug fully within the wetland, though the drill pit is omitted from this plan. Note that this crossing is at Independence Marsh.

**Commenter ID:** 22, 282

**Response:** Shell proposes to utilize the horizontal directional drilling (HDD) method at this location. Shell depicted the drill pit on the plans. Shell considered construction alternatives for this crossing but determined that other alternatives were not feasible, due to additional site constraints, such as steep slopes in the area, and the presence of other roadways, private water supplies and other aquatic resources. Shell will implement procedures within its "Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan," to avoid and minimize impacts to the regulated waters of the Commonwealth, within this project area. The Department has concluded that Shell has satisfied the regulatory requirements.

17. Beaver County SS166, Resource Crossing #76: The depiction of the timber matting here overlaps the home in the drawing. It is unclear what the actual placement will be. The timber mat also does not

cover the span of the wetland that would need to be covered when navigating between the edge of the limits of disturbance and the home, which is also blocked by orange safety fence. It is hard to see how vehicles will travel past these obstacles. Furthermore, there are two water wells and a home within a few feet of where the actual trench must go. It is unclear how this property will be protected.

**Commenter ID: 22**

**Response:** Shell added additional timber matting at this Resource Crossing #76, as shown on Erosion and Sediment Control Plan Sheet ES115. Shell has identified water wells in this area, on the Water Plan Map that is included within Appendix C, of its Inadvertent Returns From HDD: Assessment, Preparedness, Prevention and Response Plan. This plan also includes a procedure for the pre- and post- construction monitoring of all identified wells and springs with a 450 foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell's expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

18. Allegheny County SS066, Resource Crossing #17 - This crossing is of a stream, PEM wetland, and PFO wetland complex. Shell notes, "HDD: This complex is crossed via HDD at a depth ranging 11 to 13 feet." That is very shallow for an HDD crossing, very likely above bedrock and in relatively loose overburden. The likelihood of an inadvertent return in such a crossing is very high, and the stream and wetlands would quite possibly be damaged by that eventuality. Shell should produce a site-specific analysis sealed by a Pennsylvania Professional Geologist of this HDD crossing, including geologic data such as core samples, depth to bedrock, competency of bedrock, water table levels, and the like to evaluate the risk of inadvertent return.

**Commenter ID: 22**

**Response:** Shell submitted a subsurface investigation report for HDD HOU-07, which covers Resource Crossing #17. This subsurface investigation includes a review of published soil information, from the Natural Resource Conservation Service (NRCS) as well as three geotechnical borings within the vicinity of the crossing. The three borings were analyzed for depth to bedrock, top of bedrock unit and groundwater level.

19. Allegheny County, SS069/SS070, Resource Crossings #20, #21, & #22: This trench crossing encompasses a large area of wetland in the right-of-way. The Department should press Shell for alternative locations or methods of crossing, or to narrow and shift the right-of-way to avoid impacts to this wetland.

**Commenter ID: 22**

**Response:** Shell has shifted the pipeline route to the west. While this has increased impacts at RC-23,

this shift has avoided impacts at RC-22, and reduced impacts at RC-20, RC-24.

20. Allegheny County, SS072, Resource Crossing #24: Shell plans to use 0.453 acres of PSS wetland as temporary work space. Based on the plan, this appears to be excessive at this crossing.

**Commenter ID:** 22

**Response:** Shell has shifted the pipeline route to the west which will reduce the impacts at RC-24.

21. Allegheny County, SS075/SS076/SS077, Resource Crossing #28: Shell plans to trench through a large stream and wetland complex, resulting in heavy impacts to these resources. The Department should press Shell for alternative locations or methods of crossing in this area to avoid the large impacts.

**Commenter ID:** 22

**Response:** Shell indicated that it was not able to avoid this impact, due to landowner issues and a proposed housing development, near this resource crossing.

22. Washington County, SS034, Resource Crossing #33: This trench crossing of a stream / PFO wetland / PEM wetland complex will cause very large impacts to the resources. The Department should press Shell for alternative locations or methods of crossing this area to avoid the large impacts.

**Commenter ID:** 22

**Response:** The comment referred to "Resource Crossing #33" and was based on drawings dated 11/10/17. Shell identified an error on this page and the resource number should be Resource Crossing #32. RC-32 could not be avoided due to the location of an existing, large, man-made pond to the south and another proposed utility line to the north. However, Shell made a minor revision to the LOD at this crossing to reduce impacts.

23. Washington County, SS036 - Resource Crossing #35: Shell plans to trench through 0.241 acres of PEM wetland at this crossing. Based on the plan, this appears to be excessive at this crossing.

**Commenter ID:** 22

**Response:** The comment referred to "Resource Crossing #35" and was based on drawings dated 11/10/17. Shell identified that there was an error on this page and the resource number should be Resource Crossing #34. RC-34 could not be avoided due to the locations of multiple, existing utility lines and the need to use a conventional bore crossing of Fort Cherry Road. However, Shell made a minor revision to the LOD to reduce impacts at this location.

24. Other candidates for consideration of trenchless crossings include: Beaver Co. Resource Crossings 1, 8A, 10, 15, 16, 19, 23, 29, 30, 35, 50, 69, 80, 88, 100, 102, 103, 104; Allegheny Co. Resource Crossings 10, 28, 30, 32, 33, 34, 35, 36; Washington Co. Resource Crossings 3, 9, 13, 16, 21, 23, 27,

35.

**Commenter ID: 22**

**Response:** Shell's decision to use the open cut method for the above listed crossings meets the applicable Commonwealth statutory and regulatory requirements. Shell describes the conventional bore method and the horizontal directional drill (HDD) method as trenchless crossing methods in the Alternatives Analysis section of its Comprehensive Environmental Assessment document. In addition, Shell discusses limitations that are associated with each of these trenchless crossing methods. In the conventional bore method, these limitations include the requirements of accessibility to the entry and exit locations, a short and straight bore path, and safety and workspace constraints. In the HDD method, these limitations include the need for a sizable workspace area to accommodate the entry and exit points, HDD equipment layout and maneuvering, and the pipeline pulled back through the bore hole. Geotechnical subsurface conditions, geometric surface constraints and the potential for inadvertent returns also limit the implementation of the HDD method.

25. An explanation should be given for the need for access road HOU-TAR-50 given the existence of parallel SCIO-PAR-09, especially since HOU-TAR-50 cuts through several wetlands.

**Commenter ID: 22**

**Response:** Shell has removed access road HOU-TAR-50. Instead of using this road, Shell will utilize an existing driveway and an existing logging road, as access roads.

26. The Department should require Shell to disclose the methodology by which it classifies wetlands using the Cowardin classification system (PEM, PSS, and PFO). Specifically, Commenter ID are aware that some surveyors do not consider wetlands to be PFO (or, in a parallel manner, PSS) unless tree trunks (or shrubs) are rooted in hydric soils, regardless of whether they are enclosed in canopy. This is contrary to the Cowardin classification system's emphasis on canopy cover.

**Commenter ID: 22**

**Response:** In the methodology section of its wetland and watercourse delineation report, Shell states that: "Wetlands within the Study Area were classified according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979). Wetland classifications were based upon vegetation type and dominance: palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO) and palustrine unconsolidated bottom (PUB). Dominant vegetation was evaluated on percent aerial cover for each stratum: tree, sapling/shrub, herbaceous, and woody vine."

27. Shell makes unsubstantiated assertions that best management practices in pipeline construction in wetlands will yield "minimal impacts", which are is contrary to the evidence of significant adverse construction and operation impacts from past pipeline projects where applicants were required to adopt best management practices



**Commenter ID: 22**

**Response:** In addition to implementing BMPs during its pipeline construction to minimize environmental impacts, Shell will restore or mitigate impacted wetlands and conduct monitoring to ensure wetlands are restored.

28. Has stream substrate been taken into consideration?

**Commenter ID: 1352**

**Response:** Yes. As part of Shell's on-site evaluation, it identified and delineated watercourses based on whether the feature exhibited typical watercourse characteristics such as a defined streambed and streambanks, an exclusion of terrestrial vegetation, hydrologically-sorted substrate material, and the presence of an ordinary high-water mark.

29. How will the disturbance to wetlands be minimized or mitigated?

**Commenter ID: 1352**

**Response:** In the Alternatives Analysis section (Section 9.0) of its Comprehensive Environmental Assessment document, Shell considered co-locating with existing utility right-of-ways and the avoidance of streams, wetlands and waterbodies, to the extent practicable. Shell provided tables listing measures it implemented to minimize impacts. These measures include: shifting the limit of disturbance to avoid or minimize impacts and the use of a trenchless method to cross wetlands, when practicable. Shell also evaluated measures it would implement to minimize wetland impacts. These minimization measures included: reducing the width of the construction easement at the majority of wetland crossings, the use of equipment mats with construction equipment to cross wetlands, and the installation of erosion controls during construction. Shell will provide mitigation by restoring the affected wetlands to their original grades, after the pipeline is installed. To mitigate for conversion impacts to wetlands (i.e. where wetlands will be restored to a different wetland type within the permanent ROW), Shell will enhance wetlands at the Neshannock Creek restoration site, in Mercer County.

30. How will stream beds and banks be restored to preconstruction condition?

**Commenter ID: 1352**

**Response:** Shell will implement procedures that are identified in its erosion and sediment control plan to restore watercourses that are crossed by the pipeline.

31. The DCNR noted the following rare botanicals would be present around the project in the Raccoon Creek watershed: Vase-vine Leather-flower, Harbinger-of-spring, White Trout-lily, Purple Rocket, Declined Trillium, Snow Trillium. AECOM did their own survey in May 2017 and found Harbringer-of-spring, Purple Rocket and Climbing fern, also on the PA Watch List. DCNR was satisfied that route changes and plans to bore under Raccoon Creek using HDD eliminated risks to Harbringer-of-spring

and Purple Rocket, but some comments are doubtful that HDDs will eliminate these impacts given the extent of surface disturbance involved in establishing staging areas. Shell should do additional studies prior to executing right-of-ways to identify and relocate sensitive botanical species.

**Commenter ID:** 813

**Response:** By letter of August 15, 2017, the PA Dept. of Conservation and Natural Resources (DCNR) determined that no impact is likely to affect these plant species from this pipeline project, as proposed. The Department concurs with this determination by DCNR.

32. There are gaps in AECOM's bat study, including the following:
- a. The study did not identify winter habitat sites.
  - b. A study of the impact on silver-haired bats should be done.
  - c. Numerous roost trees are close to the site, with the closest roost 318 feet away, as well as a large cluster of roost trees all within 749 feet of the pipeline, which may be impacted by extensive clearing, due to the proximity to the junction point.

**Commenter ID:** 813

**Response:** Shell conducted mist-netting surveys at 46 sites within the project area. By letter of January 13, 2017, the United States Fish and Wildlife Service (USFWS) noted that the survey results did not include any Indiana bats (*Myotis sodalis*). USFWS also noted that these survey results did include the capture of northern long-eared bats (*Myotis septentrionalis*); however, subsequent tracking studies showed that the project is not located within 0.25 miles of a known hibernaculum for this species, or within 150 feet from a known maternity roost tree. Consequently, USFWS determined that the tree clearing related to the installation of the pipeline is not likely to adversely affect these federally listed species. The Department concurs with this determination by USFWS.

33. Shell should determine the impact that reroutes of the pipeline will have on the Northern Harrier's habitat. Additional habitat studies should be done to determine any new risks due to the pipeline reroute.

**Commenter ID:** 813

**Response:** Shell conducted northern harrier presence/absence surveys. By letter of August 10, 2017, the PA Game Commission (PGC), recommended that construction activities be avoided during the northern harrier breeding season, from April 15 through August 31, in the project area between Potato Garden Run Road in Findlay Township, Allegheny County and State Route 980 in Robinson Township, Washington County. Shell has agreed to this avoidance measure and will only conduct construction between September 1 and April 14 in the area northern harrier habitat. In addition, the Department has included a condition in Shell's JPA to require such protection.

34. The USFWS identify that the project would look impact four endangered mussel species: The Northern Riffelshell, Clubshell, Rayed Bean and the Snuffbox. In PA, mussels were found to be

present at both of the crossings under Raccoon Creek. The application argues that Raccoon Creek will not be impacted as the crossing will occur using HDD boring, but some commenters are doubtful of these claims due to the risk of executing HDDs without pre-drilling geotechnical surveys.

**Commenter ID:** 22, 813

**Response:** Shell did perform geotechnical surveys. By letter of September 17, 2015, USFWS determined that the effects of the project are not likely to adversely affect these mussel species, since the project will not directly impact the Ohio River and the horizontal directional drill method is proposed to cross under Raccoon Creek. By email message, of August 08, 2017, USFWS stated that these comments remain valid. The Department concurs with this determination by USFWS.

35. Any HDD executed along areas where endangered mussels live should be preceded by relocating any endangered mussel species prior to construction in case an inadvertent return occurs.

**Commenter ID:** 813

**Response:** See Department's above response.

36. The PA Fish and Boat Commission notified Shell that they might impact the Southern Redbelly Dace, specifically in the headwaters of the Service Creek watershed. PAFBC requested that directional boring be used for those streams or, at the least, that construction not occur during spawning season. Shell responded by saying that with the exception of lower Service Creek, which will be crossed by HDD, the terrain surrounding its headwater streams was not suitable for boring and would require open cut. PAFBC generally agreed, with the exception of the HDD site and one headwater stream (S-PA-151105-MRK-001), that all other crossings must adhere to seasonal restrictions. Some contractors believe that all of Service Creek watershed, including its headwaters, should be avoided due to concerns for protecting the Ambridge Reservoir.

**Commenter ID:** 813

**Response:** By letter of May 23, 2016, the PA Fish & Boat Commission (PFBC) indicated that the proposed activity is not anticipated to have any significant adverse impacts to Southern Redbelly Dace populations, provided that Shell complies with PFBC's recommendations: in-stream work restrictions, the use of the HDD method to cross Service Creek, and the implementation of best management practices and an erosion & sedimentation control plan. By letter of March 16, 2017, PFBC reaffirmed its comments. Shell agreed to comply with the PFBC requirements. In addition, the Department has included in its JPA a special condition to require protection for the Southern Redbelly Dace.

37. Construction of the Falcon Pipeline could affect habitats populated by 11 threatened, protected or endangered species.

**Commenter ID:** 37, 295, 1443

**Response:** Please refer to the Department’s responses to 31-36 above.

38. Bird observation data maintained by Cornell Lab of Ornithology establish this area known as “Independence Marsh” as the most diverse migratory bird habitat in Beaver County, with annual migratory sightings of internationally sensitive bird populations such as Rusty Blackbirds (See website <https://ebird.org/hotspot/L677461>)

**Commenter ID:** 282

**Response:** DEP was unable to access the website <https://ebird.org/hotspot/L677461>; however, DEP was able to access the Cornell Lab of Ornithology’s eBird website, regarding this citizen science project. Please see the Department’s response to the next comment.

39. Shell’s proposed pipeline route through Independence Marsh does not seem to take practices recommended by Laura Zimmerman of the US Fish and Wildlife Service into consideration. The boring pad at Resource Crossing 74 and the permanent right-of-way that will exist after construction will only serve to fragment and permanently degrade this special habitat that has become a source of highly concentrated bird activity.

**Commenter ID:** 282

**Response:** Shell consulted with USFWS. In Section 3.9.4.4 of the Comprehensive Environmental Assessment, regarding resource identification for migratory birds, Shell indicates that it focused primarily on reducing the overall project footprint to minimize impacts to migratory birds. To minimize the project footprint, the pipeline route is co-located with other existing utility ROWs, as much as possible.

40. The pipeline will have a negative impact on the endangered small-whorled Pogonia.

**Commenter ID:** 440, 943, 1025

**Response:** A Factsheet that is available from the Pennsylvania Natural Heritage Program website, regarding the Small-whorled Pogonia (*Isotria medeoloides*), indicates that, currently, only three (3) populations are known in PA, and none of these populations are located within Allegheny, Beaver or Washington Counties, where the project is located.

41. The pipeline corridor must be surveyed for a population of a rare species of firefly: Photinus Carolinus, the Synchronous Firefly.

**Commenter ID:** 440, 943, 1025

**Response:** The synchronous species of fireflies exist in only a handful of places throughout the world. In PA, a colony of these fireflies was found within the Allegheny National Forest, which is not located within the project area.

42. Shell does not propose increasing any wetland acreage as compensation, but instead “enhancing” existing PEM and PSS wetlands to convert them to PFO wetlands. The mitigation plan, however, does not contain any analysis to determine the impact on the local ecosystem of this conversion.

**Commenter ID:** 22

**Response:** Shell will provide mitigation by restoring the affected wetlands to their original grades, within the project area, after the pipeline is installed. To mitigate for conversion impacts to wetlands (i.e. where wetlands will be restored to a different wetland type within the permanent ROW), Shell will enhance wetlands at the Neshannock Creek restoration site, in Mercer County.

43. Since the wetland to be enhanced has been used as cattle pasture, it is not clear that the protection of this portion of land will not lead to displacement of the cattle and the degradation of other, nearby wetland habitat. The mitigation plan should contain a displacement analysis to show whether the projected gains may in fact be a wash.

**Commenter ID:** 22

**Response:** The Department acknowledges the comment. Shell’s wetland mitigation site, which will provide compensation for permanent conversion impacts to wetlands, will be located adjacent to other existing Permittee-Responsible Mitigation (PRM) sites, at the Neshannock Creek Restoration Site.

44. The restoration site is much farther north than the northernmost point in the Falcon project. The landscape and ecology, including ecological stressors, are not the same in the restoration location as along the route of the Falcon Pipeline.

**Commenter ID:** 22

**Response:** The Neshannock Creek Restoration Site and Shell’s project are both located within the Ohio River subbasin, in Pennsylvania.

45. The site restoration instrument is not yet executed or finalized. This instrument leaves the possibility for future oil and gas subsurface exploration and maintains coal interests. It also leaves in place previous easement rights, which--like this Pipeline--may involve destruction of the features to be protected.

**Commenter ID:** 22

**Response:** After construction, Shell’s Permittee-Responsible Mitigation (PRM) site, at the Neshannock Creek Restoration Site, will be subject to the same regulatory requirements within the Department’s Chapter 105 rules and regulations as other natural or artificial wetlands.

46. Shell has reduced the right-of-way from 100 feet to 75 feet in certain locations. This does not include all locations where resources could be better avoided. The Department should inquire with Shell why this cannot be done at more locations.

**Commenter ID:** 22

**Response:** In consideration of multiple factors, including: environmental impact, safety considerations, construction access, and workspace configurations, Shell will employ a number of techniques to minimize impacts at resource crossings, including: reduction in limits of disturbance (LOD), reduction in vegetation removal, storage of materials away from waterbodies, and low-impact temporary crossings.

47. DEP should assess an alternative route around the Beaver Valley Mine, as there is known issues of subsidence in mined areas.

**Commenter ID:** 732

**Response:** The Beaver Valley Mine is located north of the Ohio River, and not within the project area.

48. DEP should require Shell to pursue an alternative route that wouldn’t cross any areas near a drinking water supply.

**Commenter ID:** 10, 20, 21, 41, 48, 58, 118, 119, 144, 148, 162, 190, 240, 255, 360, 364, 366, 368, 369, 484, 496, 508, 523, 539, 564, 571, 573, 584, 596, 623, 627, 661, 668, 671, 687, 695, 700, 708, 713, 733, 747, 780, 783, 789, 792, 831, 838, 840, 842, 846, 852, 874, 883, 884, 897, 993, 1011, 1039, 1049, 1052, 1065, 1066, 1110, 1145, 1150, 1173, 1210, 1253

**Response:** The pipeline route will avoid direct impacts to public water supply wells, reservoirs and intake structures. Shell will implement and maintain best management practices, in accordance with an erosion and sediment control plan during earthmoving activities, including construction activities that will occur near drinking water supplies. Appendix C of Shell’s Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, which is part of the applications and the permits, includes a procedure for the pre- and post-construction monitoring of all identified private water supply wells and springs within a 450-foot radius of the HDD sites and within 150 feet of each side of the pipeline center line route. Shell will offer all identified water supply owners pre- and post-construction testing for yield and specific water quality parameters, at Shell’s expense. The permits include a special condition requiring Shell to notify landowners within 450 feet of HDD alignments and offer such landowners the opportunity to have their water supply sampled before, during, and after the HDD operation.

49. Shell should undertake a site-specific risk analysis looking at the special features and values inherent in the locations impacted by the proposed pipeline.

**Commenter ID:** 22

**Response:** Shell has provided an Environmental Assessment, within each of its three (3) applications for a Water Obstruction & Encroachment Permit. In brief, the Environmental Assessment requires Shell to provide a project summary, to identify the resources present in the project area, to characterize those resources that may be affected by the proposed project, and to identify and describe the potential impacts or effects of the proposed project. Shell has also provided a Comprehensive Environmental Assessment that analyzes alternatives, impacts, mitigation and antidegradation for all structures and activities associated with the project. The Department has concluded that these environmental assessments satisfy the regulatory requirements.

50. Shell should avoid Independence Marsh, near the Beaver County Conservation District (Beaver County Submission, Crossings 73 and 74).

**Commenter ID:** 22, 282

**Response:** Shell proposes to utilize the horizontal directional drilling (HDD) method at this location. Shell considered construction alternatives for this crossing but determined that other alternatives were not feasible, due to additional site constraints, such as steep slopes in the area, and the presence of other roadways, private water supplies and other aquatic resources. Shell will implement procedures within its "Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan," to avoid and minimize impacts to the regulated waters of the Commonwealth, within this project area. The Department has concluded that Shell has satisfied the regulatory requirements.

51. There are several areas made visible in the plans provided with the Chapter 102 application where an open-cut stream or pond is located directly adjacent to a bore or HDD. If this bore or HDD were to be extended or adjusted by a short distance, the impact to these resources could in some instances be dramatically reduced. In the Site Restoration Plan, the commenter direct the Department's attention to Sheets SR086, SR103, SR134, and SR197.

**Commenter ID:** 22

**Response:** Shell's decision to use the open cut method for the above listed crossings meets the applicable Commonwealth statutory and regulatory requirements. Shell describes the conventional bore method and the horizontal directional drill (HDD) method, as trenchless crossing methods, in the Alternatives Analysis section, of its Comprehensive Environmental Assessment document. In addition, Shell discusses limitations that are associated with each of these trenchless crossing methods. In the conventional bore method, these limitations include the requirements of accessibility to the entry and exit locations, a short and straight bore path, and safety and workspace constraints. In the HDD method, these limitations include the need for a sizable workspace area to accommodate the entry and exit

points, HDD equipment layout and maneuvering, and the pipeline pulled back through the bore hole. Geotechnical subsurface conditions, geometric surface constraints and the potential for inadvertent returns also limit the implementation of the HDD method. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

52. The Department should require Shell to analyze the impacts to the Independence Marsh as part of an Environment Assessment and Alternatives Analysis.

**Commenter ID: 22**

**Response:** Impacts to Independence Marsh are described in the revised Aquatic Resources Impact Table and are discussed in the Comprehensive Environmental Assessment. Shell proposes to utilize the horizontal directional drilling (HDD) method at this location. Shell considered construction alternatives for this crossing but determined that other alternatives were not feasible, due to additional site constraints, such as steep slopes in the area, and the presence of other roadways, private water supplies and other aquatic resources. Shell will implement procedures within its “Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan,” to avoid and minimize impacts to the regulated waters of the Commonwealth, within this project area. The Department has concluded that Shell has satisfied the regulatory requirements.

53. In Section S3.D.3, Shell writes, “The general nature of pipeline projects is that they are temporary in nature.” Shell’s claims that most of the land use impacts are “temporary” are based on the assumption that it will successfully recreate the wetlands it destroys in a short time frame, and that nature will reclaim all that has been disturbed. As ecologists know, one cannot obliterate habitat and expect a restoration of it to have the same functions and values immediately, even for emergent wetlands.

**Commenter ID: 22**

**Response:** Shell has provided for restoration and mitigation of wetlands impacted. Monitoring will be required to ensure that resources are restored. The Department has concluded that Shell has satisfied the regulatory requirements.

54. The impacts to wetlands will likely last at least as long as the pipeline is active, as maintenance work is likely to cause re-destruction of the wetlands before they have returned to full native wetland functionality.

**Commenter ID: 22**

**Response:** Shell has provided for restoration and mitigation of wetlands impacted. Monitoring will be



required to ensure that resources are restored. The Department has concluded that Shell has satisfied the regulatory requirements.

55. The pipeline route should minimize new environmental impact by avoiding wetlands and water resources when possible, and may do so by co-locating along existing pipeline right-of-ways when possible.

**Commenter ID:** 282

**Response:** In the Alternatives Analysis section (Section 9.0) of its Comprehensive Environmental Assessment document, Shell considered co-locating with existing utility right-of-ways and the avoidance of streams, wetlands and waterbodies, to the extent practicable. Shell provided tables listing measures it implemented to minimize impacts. These measures include: shifting the limit of disturbance to avoid or minimize impacts and the use of a trenchless method to cross wetlands, when practicable. Shell also evaluated measures to it would implement to minimize wetland impacts. These minimization measures included: reducing the width of the construction easement at the majority of wetland crossings, the use of equipment mats with construction equipment to cross wetlands, and the installation of erosion controls during construction. Shell will provide mitigation by restoring the affected wetlands to their original grades, after the pipeline is installed. To mitigate for conversion impacts to wetlands (i.e. where wetlands will be restored to a different wetland type within the permanent ROW), Shell will enhance wetlands at the Neshannock Creek restoration site, in Mercer County.

56. The pipeline route should minimize ecological impact, especially with respect to the Migratory Bird Treaty Act, and may do so by following the guidelines proposed by the US Fish and Wildlife Service.

**Commenter ID:** 282

**Response:** Shell consulted with USFWS. In Section 3.9.4.4 of the Comprehensive Environmental Assessment, regarding resource identification for migratory birds, Shell indicates that it focused primarily on reducing the overall project footprint to minimize impacts to migratory birds. To minimize the project footprint, the pipeline route is co-located with other existing utility ROWs, as much as possible.

57. The application contains no data that evaluates the impact of drilling mud discharges on mussel habitat.

**Commenter ID:** 22

**Response:** Shell stated that a utility line crossing, utilizing the horizontal directional drilling (HDD) method, is proposed to cross Raccoon Creek via a trenchless method to avoid impact to any listed mussel species. The response discusses construction alternatives that were considered for this crossing; however, the consultant determined that other alternatives were not feasible because of additional site constraints, such as steep slopes in the area and the presence of roadways, private water supplies and

other aquatic resources. Shell proposed procedures within its “Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan” to avoid and minimize impacts to the regulated waters of the Commonwealth within this project area. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

58. The uses, functions and values, and exceptional value status of the aquatic resources should be added as a layer to a map showing the length of the pipeline.

**Commenter ID: 22**

**Response:** Shell’s application discussed the inherent functions of the identified riverine and wetland resources. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

59. Shell claims that multiple analyses are not required or applicable in its Joint Permit Application. Among these are the hydrologic and hydraulic analysis (see Section 7.b of this comment), stormwater management analysis (and associated consistency letters, see section 7.a of this comment), floodplain management analysis, and risk assessment. JPA Reqs. P, Q. It is unclear why Shell would be exempt from these analyses.

**Commenter ID: 22**

**Response:** The proposed pipeline is located underneath numerous streams and wetlands. It will not directly impact flow rates or water surface elevations within the impacted resources. Therefore, a hydrologic and hydraulic analysis was not required. As per § 105.13(e)(1)(v), a stormwater management analysis is necessary in situations where a watershed stormwater management plan has been prepared or adopted under the Storm Water Management Act. The municipalities with stormwater management plans prepared or adopted under the Storm Water Management Act, include Chartiers Township, Mount Pleasant Township and Robinson Township, all in Washington County. Letters from those three townships commenting on the analysis were provided. In addition, the Department received letters from Findlay Township, and North Fayette Township commenting on an analysis of the project’s impact on their stormwater management plan. The proposed pipeline is not located within a floodway delineated on a FEMA map. Therefore, a floodplain management analysis is not required for this project. Flow rates or flood elevations will not increase due to this project, therefore a risk assessment is not required.

60. 25 Pa. Code § 105.13(e)(1)(vi) states: “Floodplain management analysis. If the proposed dam, water obstruction or encroachment is located within a floodway delineated on a FEMA map, include an analysis of the project’s impact on the floodway delineation and water surface profiles and a letter from the municipality commenting on the analysis.” Shell’s excuse for not including a floodplain

management analysis is that “[t]here are no permanent impacts located within any floodways delineated on a FEMA map; therefore a floodplain management analysis and consistency letter is not required.” JPA Req. P. Section 105.13(e)(1)(vi) says nothing of permanence.

**Commenter ID:** 22

**Response:** The proposed pipeline is not located within a floodway delineated on a FEMA map. Accordingly, a floodplain management analysis is not required for this project.

61. Moreover, if a floodplain analysis is undertaken, then a risk assessment must also be conducted if certain conditions are met. See 25 Pa. Code § 105.13(e)(1)(vii) (“Risk assessment. If the stormwater or the floodplain management analysis conducted in subparagraphs (v) and (vi) indicates increases in peak rates of runoff or flood elevations, include a description of property and land uses which may be affected and an analysis of the degree of increased risk to life, property and the environment.”) Due to no floodplain management analysis having been conducted, no risks were found in the floodplain management analysis.

**Commenter ID:** 22

**Response:** Refer to the response above. Those submitted stormwater management analyses conducted as per § 105.13(e)(1)(v) indicate that the plans submitted to Chartiers Township, Findlay Township, North Fayette Township, Mount Pleasant Township and Robinson Township all agree with each township’s stormwater management ordinances.

62. The Environment Assessment incorrectly states that the project “ ... is not located in or within 100 feet of a national, state, or local park, forest, or recreation area. It is not located in or within 100 feet of a national natural landmark, national wildlife refuge, or federal, state, local or private wildlife or plant sanctuaries, state game lands. It is also not located in or within 100 feet of a national wild or scenic river, the Commonwealth’s Scenic Rivers System, or any areas designated as a Federal Wilderness Area. Additionally, there are no public water supplies located within the Project vicinity.”, however this is misleading as it gives the impression that these resources are not at risk from the Falcon pipeline.

**Commenter ID:** 22, 732

**Response:** Shell did discuss recreational resources and project impacts to the resources described above in its Comprehensive Environmental Assessment. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

63. This project will not be monitored by FERC, and thus will not undergo a full environmental impact assessment (EIA).

**Commenter ID:** 206, 437, 813, 1376, 1443

**Response:** Shell provided an Environmental Assessment within each of the submitted JPAs, and also submitted a Comprehensive Environmental assessment for the entire project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

64. The Pennsylvania Natural Heritage Program (PNHP) maintains a list of all species or communities inventoried by PNHP for which there is a conservation concern; the PNHP data is more extensive than the list of species and communities used for environmental review in the PNDI tool. The 2014 Beaver County Natural Heritage Inventory states that “the stretch of Mill Creek, along with the adjacent uplands, supports a sensitive species of concern, which cannot be named [in the Inventory report] at the request of the jurisdictional agency overseeing its protection.” The application does not evaluate whether impacts to the unnamed sensitive species of concern in the Mill Creek riparian habitat have been assessed. Additionally, the application does not propose using trenchless crossing methods to cross under Mill Creek, which is one of Shell’s stated methods of protecting sensitive areas.

**Commenter ID: 22**

**Response:** While the pipeline will cross watercourses within the Mill Creek watershed, these crossings will not be located within Mill Creek in Beaver County National Heritage Area. Although the narratives within the county inventories that are in PNHP may not specifically identify all of the species of special concern that might be located within an NHA, the PNDI database, within PNHP, contains records of these species. The Department in consultation with the resource agencies would evaluate potential impacts, if the species were determined to be located within a project/search area that was entered into the PNDI system.

65. Shell observed that some of the Northern Harriers appeared to be nesting just beyond the study area, but failed to affirmatively identify those locations. In February 2017, Shell notified the PGC that a number of reroutes had occurred that would shift the Falcon pipeline away from a subset of the observed Northern Harrier habitat. However, because Shell did not identify the “nearby” nesting locations of the Northern Harrier locations, it cannot be determined whether the subsequent shift in the pipeline route will impact this additional Northern Harrier habitat.

**Commenter ID: 22**

**Response:** Based upon the results of northern harrier presence/absence surveys that were conducted by Shell, the PA Game Commission (PGC), by letter of August 10, 2017, recommended that construction activities be avoided during the northern harrier breeding season, from April 15 through August 31, in the project area between Potato Garden Run Road in Findlay Township, Allegheny County and State Route 980 in Robinson Township, Washington County. This letter was an update to a previous letter that was issued by PGC, dated December 30, 2016. This letter update was based upon additional info, that was provided to PGC, regarding changes in the route of the pipeline. The Department has included a

special condition in the permit to require such protection.

66. Shell's application shows that the HDD staging area will be located just beyond the 1,000 foot buffer surrounding the Tomlinson Run alternate bald eagle nest site. Shell's permit application contains no information justifying the assumption that construction and operation of equipment at this site will not cause excessive noise at the alternate nest site. Without any study data associated with this site, the Department cannot conclude that construction of the pipeline will not adversely impact habitat associated with a federally protected species.

**Commenter ID: 22**

**Response:** The Tomlinson Run alternate bald eagle nest site is not located within Pennsylvania.

67. Shell's birds of prey studies fail to make any mention of Peregrine Falcons, a Pennsylvania endangered species.

**Commenter ID: 22**

**Response:** Responses to the Shell Pennsylvania Natural Diversity (PNDI) Large Project Environmental Review request, from USFWS and PGC, did not identify the peregrine falcon as a species of special concern, in the project area.

68. Shell's bat study notes that the nearest roost tree is 318 feet from the Project's workspace, but this does not fully represent the likely impact to bat populations. A review of Shell's application shows that the tree mentioned by Shell is just one in a cluster of five trees all within 749 feet of the Pipeline's workspace.

**Commenter ID: 22**

**Response:** Shell conducted mist-netting surveys at 46 sites within the project area. By letter dated January 13, 2017, the United States Fish and Wildlife Service (USFWS) noted that the survey results did not include any Indiana bats (*Myotis sodalis*). In this letter, USFWS also noted that these survey results did include the capture of northern long-eared bats (*Myotis septentrionalis*); however, subsequent tracking studies showed that the project is not located within 0.25 miles of a known hibernaculum for this species, or within 150 feet from a known maternity roost tree. Consequently, USFWS determined that the tree clearing related to the installation of the pipeline is not likely to adversely affect these federally listed species. The Department concurs with this determination by USFWS.

69. The assessment of the impact of the project on bat habitat does not account for additional construction activity, such as metering pads and access roads.

**Commenter ID: 22**

**Response:** Shell conducted mist-netting surveys at 46 sites within the project area, which would include support facilities. By letter dated January 13, 2017, the United States Fish and Wildlife Service (USFWS)

noted that the survey results did not include any Indiana bats (*Myotis sodalis*). In this letter, USFWS also noted that these survey results did include the capture of northern long-eared bats (*Myotis septentrionalis*); however, subsequent tracking studies showed that the project is not located within 0.25 miles of a known hibernaculum for this species, or within 150 feet from a known maternity roost tree. Consequently, USFWS determined that the tree clearing related to the installation of the pipeline is not likely to adversely affect these federally listed species. The Department concurs with this determination by USFWS.

70. The bat study did not identify winter bat habitats, only summer bat habitats.

**Commenter ID: 22**

**Response:** Shell conducted mist-netting surveys at 46 sites within the project area. By letter dated January 13, 2017, the United States Fish and Wildlife Service (USFWS) noted that the survey results did not include any Indiana bats (*Myotis sodalis*). In this letter, USFWS also noted that these survey results did include the capture of northern long-eared bats (*Myotis septentrionalis*); however, subsequent tracking studies showed that the project is not located within 0.25 miles of a known hibernaculum for this species, or within 150 feet from a known maternity roost tree. Consequently, USFWS determined that the tree clearing related to the installation of the pipeline is not likely to adversely affect these federally listed species. The Department concurs with this determination by USFWS.

71. During the bat study, one northern long-eared bat was captured during the survey. After 7 consecutive days of searching for the tagged bat up to four miles from the original capture location, AECOM biologists concluded that the bat was most likely roosting on an offsite property. AECOM proposed that the project, barring significant pipeline re-routes, is not likely to adversely affect the long-eared Indiana bat. This conclusion is unreasonable and entirely without foundation. Shell could not detect the bat's transmitter signal and concluded the bat roosted outside the search area instead of considering the possibility that the transmitter malfunctioned.

**Commenter ID: 22**

**Response:** Shell conducted mist-netting surveys at 46 sites within the project area. In its letter dated January 13, 2017, the United States Fish and Wildlife Service (USFWS) noted that these survey results included the capture of seventeen (17) northern long-eared bats (*Myotis septentrionalis*), eleven (11) of which were fitted with devices, for subsequent tracking studies. The results of these tracking studies showed that the project is not located within 0.25 miles of a known hibernaculum for this species, or within 150 feet from a known maternity roost tree. Consequently, USFWS determined that the tree clearing related to the installation of the pipeline is not likely to adversely affect this federally listed species. The Department concurs with this determination by USFWS.

72. Has a study on the impacts on the functions and values of impacted wetlands been done? Will stricter standards be enforced for high quality water sources?

**Commenter ID: 1283**

**Response:** Impacts to wetlands are discussed within Module S3 of the of the Environmental Assessment document that was provided in each of Shell’s JPAs, and also within Section 4 of Shell’s Comprehensive Environmental Assessment. Shell will utilize ABACT BMPs in Special Protection watersheds and areas where there is an impaired water with an approved TMDL for siltation. The Department has included a special condition in the Chapter 102 requiring such protection.

73. Commentators should assess the cumulative impact of multiple pipeline stream crossings in a watershed.

**Commenter ID:** 22, 237, 552, 813, 1283

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a legal responsibility to ensure Shell’s adherence to environmental laws throughout the project’s administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth’s water resources. After conducting a thorough and comprehensive evaluation of Shell’s applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth’s legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania’s water resources are adequately protected.

74. In *Pennsylvania Environmental Defense Foundation v. Commonwealth*, 161 A.3d 911, 931, a majority of the Pennsylvania Supreme Court re-affirmed that the Commonwealth government is trustee of public natural resources under Section 27, and that the public trust provisions (i.e., the second and third sentences) of Section 27 are self-executing. As such, the Court was clear: government action should be measured against private trust law principles at the time of Section 27’s enactment in 1971. Those fiduciary duties include prudence, which requires “comprehensive investigation.”

**Commenter ID:** 22

**Response:** The Department acknowledges the comment. DEP’s review of the applications and issuance of the permit for the Shell Project is consistent with applicable statutory and regulatory requirements. These requirements, the Department’s thorough and comprehensive review of all the applications submitted to DEP for this project, together with consideration of input from the public and other trustees, as well as the project specific terms and conditions of the permits, satisfy Article I, Section 27

of the Pennsylvania Constitution. The permits provide reasonable protection for public health and safety and the environment.

75. Shell's applications omit the requisite information on the cumulative impacts of the Project as a whole.

**Commenter ID: 22**

**Response:** Shell's Comprehensive Environmental Assessment analyzes alternatives, impacts, mitigation and antidegradation for all structures and activities associated with the project, and assesses cumulative impacts to wetlands.

76. The Department needs data and analysis from Shell regarding the Project's impacts to other public natural resources besides wetlands.

**Commenter ID: 22**

**Response:** Shell has provided this information as part of its Environmental Assessment documents, Comprehensive Environmental Assessment in its application.

77. The Department needs data and analysis from Shell on secondary impacts that the application ignores. For example, the application denies the Project "hav[ing] anything to do with a well related to oil and gas production." It is contrary to undisputed Project purpose of transporting ethane, a byproduct of drilling for oil and gas at nearby wells, and contrary to Shell's statement elsewhere that is "proposing to conduct oil and gas activities."

**Commenter ID: 22**

**Response:** Shell provides a Potential Secondary Impact Evaluation in Module S3, of its Environmental Assessment document, within each of its JPAs. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

78. Shell likewise must provide meaningful analysis of the cumulative impacts of the Project combined with other projects. This is particularly important here, where the Project is part of the Plan to spur projects that use climate-disrupting fossil fuels—above and beyond the unprecedented growth in such projects in recent years.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a legal responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits,



which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

79. The Department should require Shell to catalog all existing and foreseeable projects in the area, especially those that use climate-disrupting shale gas and gas liquids. Further, this catalog should include projects in early planning stages. Then, based on this catalog, the Department should require Shell to analyze the cumulative impacts of the Project together with other projects.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a legal responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

80. A cumulative analysis will reveal that the Project combined with other projects would exacerbate climate change and other environmental harms suffered by Pennsylvania communities. Therefore, environmental antidegradation standards very likely bar the Project.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a legal responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

81. I am concerned about the pipeline's impacts on rare and endangered flora and fauna.

**Commenter ID:** 440, 660, 943, 1025

**Response:** Please refer to the Department's responses to 31-37 above.

82. Has the potential for streams to migrate been considered in this application?

**Commenter ID:** 1352

**Response:** The application is based on existing landforms. Shell will restore stream crossings based on conditions at the time of review. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

83. 25 Pa. Code § 105.13(e)(1)(v) requires that "If a watershed stormwater management plan has been prepared or adopted under the Storm Water Management Act (32 P. S. § § 680.1—680.17), an analysis of the project's impact on the Stormwater Management Plan and a letter from the county or municipality commenting on the analysis shall be included." The Department should require conformity to the letter of the law. There is no reason Shell cannot work closely with townships to receive and submit a letter commenting on the analysis for each applicable municipality.

**Commenter ID:** 22

**Response:** As per § 105.13(e)(1)(v), a stormwater management analysis is necessary in situations where a watershed stormwater management plan has been prepared or adopted under the Storm Water Management Act. The municipalities with stormwater management plans prepared or adopted under the Storm Water Management Act, include Chartiers Township, Mount Pleasant Township and Robinson Township, all in Washington County. Letters from those three townships commenting on the analysis were provided. In addition, the Department received letters from Findlay Township, and North Fayette Township commenting on an analysis of the project's impact on their stormwater management plan.

84. Shell's claim of ignorance requires special scrutiny, given Shell's failure to disclose its own petrochemical projects in the past. Specifically, in the company's applications for the ethane cracker project that is directly connected to the Project, Shell did not discuss the impacts of the Project. Yet at the time of the applications for the ethane cracker project, Shell's work on this Project was already well underway. Such piecemeal environmental review must not recur.

**Commenter ID:** 22, 886, 1156

**Response:** As part of the Chapter 105 permit applications for the Shell Falcon Ethane Pipeline, Shell was required to conduct a comprehensive environmental assessment that included impacts from the Shell Petrochemical Complex.

85. The application at once claims that it is only aware of two gas lines that are proposed to connect to its ethane cracker, but also acknowledges that the Project directly crosses many other existing rights of way for pipeline and transmission lines. Such inconsistencies need to be fixed.

**Commenter ID:** 22

**Response:** The application identifies two pipelines that are proposed to connect to the Shell Petrochemical Complex. In its alternatives analysis, Shell considered existing utility rights-of-way during pipeline route selection. In addition, in its revised Comprehensive Environmental Assessment, Shell considers other existing permanent project impacts and other potential projects proposing permanent impacts, in assessing cumulative impacts to wetlands.

## Comments Regarding the IR Plan or PPC Plan

1. What is the plan, should an accident occur?

**Commenter ID:** 144

**Response:** Shell's application included a Preparedness, Prevention and Contingency (PPC) Plan for Construction Activities. This plan provides a course of action, should an accident occur. Additionally, Shell submitted an Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan. This plan provides a course of action should an inadvertent return occur. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

2. The trenchless construction alternatives analysis does not consider the full range of alternatives. Shell proposes a sparing use of trenchless construction methods, with more roads than environmental features being bored under. As elaborated on below, the use of methods involving pressurized drilling fluid (such as HDD) carry a risk of inadvertent return, aquifer depletion, and ground destabilization. That risk can be reduced through sound, site-specific geologic and hydrogeologic analysis, and good construction practices. It will not be appropriate for some locations, but it is not clear that Shell has done the analysis of which locations may be well suited for such trenchless crossing methods.

**Commenter ID:** 22

**Response:** Shell's decision to use the open cut method meets the applicable Commonwealth statutory and regulatory requirements. Shell describes the conventional bore method and the horizontal directional drill (HDD) method, as trenchless crossing methods, in the Alternatives Analysis section, of its Comprehensive Environmental Assessment document. In addition, Shell discusses limitations that are associated with each of these trenchless crossing methods. In the conventional bore method, these limitations include the requirements of accessibility to the entry and exit locations, a short and straight

bore path, and safety and workspace constraints. In the HDD method, these limitations include the need for a sizable workspace area to accommodate the entry and exit points, HDD equipment layout and maneuvering, and the pipeline pulled back through the bore hole. Geotechnical subsurface conditions, geometric surface constraints and the potential for inadvertent returns also limit the implementation of the HDD method.

3. Shell's HDD Plan lacks specificity in several areas and does not provide for Department oversight.

**Commenter ID:** 22, 277, 732

**Response:** The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

4. The HDD Plan is also riddled with errors and sloppy drafting.

**Commenter ID:** 22

**Response:** The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

5. Shell has also indicated that it is "unable to identify specific L[oss] C[ontrol] M[easure]s and polymers that may be used on the Project," in part because that determination will depend on site-specific geology. Shell should be able to give the Department and the public more information about what additives it intends to use at each site as this goes to the adequacy and appropriateness of its mitigation plans.

**Commenter ID:** 22

**Response:** The Department has included the following special condition in the permits: "HDD additives which are certified for conformance with ANSI/NSF Standard 60 (Drinking Water Treatment Chemicals - Health Effects) are deemed acceptable to DEP, when used in strict compliance with the manner indicated in the certification of the additive. All conditions included as part of the additive's certification must be followed. A current listing of certified drilling fluids is maintained by NSF at <http://www.nsf.org/Certified/PwsChemicals/Listings.asp?ProductFunction=Drilling+Fluid&>. Use of drilling additives certified for conformance with ANSI/NSF Standard 60 does not relieve operators from the requirement to obtain the necessary permits to conduct HDD operations. Use of certified additives does not relieve the operator of liability should an inadvertent return or other pollution of waters of the Commonwealth occur as a result of drilling operations."

The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

6. It is critical that Shell have a professional geologist on site during trenchless construction.

**Commenter ID: 22**

**Response:** In Section 4.2.1 of the Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, Shell specified that it will have two Environmental Inspectors (EIs) on site during each HDD crossing, and a licensed Professional Geologist (PG) identified and on standby while HDDs are in progress to provide technical assistance.

7. The HDD plan should make clear who on site has stop-work authority in the event of an inadvertent return or other permit violation.

**Commenter ID: 22**

**Response:** In Section 4.2.1 of the Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan, Shell specified that it will designate an HDD Coordinator (HC) for the project. The HC will have overall authority for construction activities that occur on their designated HDD including work stoppage.

8. The contingency plan for responding to inadvertent returns at “in-accessible locations,” contemplates neither cleanup of the inadvertent return nor shutdown of drilling to prevent spread of the uncontained inadvertent return. Shell should be required to shut down drilling operations at that site until the incident is investigated and it is determined to be safe to restart.

**Commenter ID: 22**

**Response:** The Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan addresses the shutdown procedure and sets forth the criteria for restart should an inadvertent return occur. In addition, the Department has included a special condition in the permits. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

9. If there are locations where the terrain is such that inadvertent returns may be inaccessible, Shell should specifically identify such locations and any associated site-specific impacts in the permit applications so the Department can properly evaluate whether the risk of those returns is acceptable.

**Commenter ID: 22**

**Response:** Shell provided a subsurface investigation of each of the 15 sites in Pennsylvania at which it intends to perform HDD. Each of the subsurface investigations includes a desktop review of published soil information, surficial and geologic conditions, and data from borings drilled along each crossing. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

10. For all inadvertent returns, Shell intends to make its own calls as to when drilling should be started and stopped after a spill with little or no Department involvement. Other plans have had to go through multiple iterations and have been thoroughly vetted by the Department, industry experts, public advocates and the Environmental Hearing Board. Many aspects of a more thoroughly vetted plan, in particular the protocols for responding to inadvertent returns, should be applied here to better protect the public and the environment.

**Commenter ID:** 22, 1410

**Response:** The Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan addresses the shutdown procedure and sets forth the criteria for restart should an inadvertent return occur. In addition, the Department has included a special condition in the permits. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

11. The HDD Plan is a document to be used to guide men and women in the field and should describe precisely who should be contacted and how. It should also describe what notice is necessary and what must be included in the notice. The current HDD plan fails to do so.

**Commenter ID:** 22

**Response:** The Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan addresses the shutdown procedure and sets forth the criteria for restart should an inadvertent return occur. In addition, the Department has included a special condition in the permits. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

12. If there is a loss of circulation or a surfacing of groundwater, the Department and nearby water supply holders should be notified.

**Commenter ID:** 22, 737

**Response:** The Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan includes provisions to notify nearby water supply owners in case of an inadvertent return. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

13. The DEP will not be told about the damage done by an inadvertent return to any nearby streams, wetlands, groundwater etc.

**Commenter ID:** 426

**Response:** The Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan includes provisions to notify the Department in case of an inadvertent return.

14. Shell proposes the use of HDD under streams that contain species of concern and threatened and endangered species. However, the application contains no analysis of the short- and long-term impact on aquatic habitat of the releases that will likely occur.

**Commenter ID:** 22

**Response:** Impacts to Threatened and Endangered (T&E) species are addressed through consultation with agencies responsible for those species (e.g. U.S Fish and Wildlife Service, PaDCNR, PaFBC, and PaGC).

15. The “control center” for the Falcon Pipeline to monitor problems is located in Texas. This is not viable monitoring.

**Commenter ID:** 1400

**Response:** Shell’s Falcon Ethane Pipeline operation includes provisions for monitoring, including permanent staff living within the project area after construction. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

## Comments Regarding Concerns Outside the Jurisdiction of Chapter 102 or Chapter 105

1. How would an accidental release of ethane affect stream and wetland ecosystems?

**Commenter ID:** 1352

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation. The Department is responsible investigating incidents of pollution. The Department can exercise its authority to require restoration and mitigation of any environmental impacts.

2. The "blast zone" of the ethane pipeline, the 1000 feet on around the pipeline which could be negative impacted by a pipeline explosion, includes the raw water line of the Ambridge Reservoir as well as the feeder streams to the reservoir.

**Commenter ID:** 145, 223, 527, 660, 939, 1099

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation. The Department has jurisdiction to investigate incidents of pollution and require mitigation of any environmental impacts.

3. The construction and operation of the Falcon Ethane Pipeline must be overseen and monitored in a way that safeguards the Ambridge Reservoir now, and for generations to come.

**Commenter ID:** 1246

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

4. Will gas detectors be installed around the Beaver County Conservation District which will detect ethane?

**Commenter ID:** 144

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory



and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

5. How will people get in and out of the Beaver County Conservation District lot during construction of the pipeline through Independence Marsh?

**Commenter ID:** 144

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

6. What is the Beaver County Conservation District doing to avoid interference with the breeding season and to avoid scaring off wildlife during construction of the pipeline?

**Commenter ID:** 144

**Response:** Construction activity will be temporary and is expected to remain in a given area for a few weeks. Habitat recovery is anticipated to occur after restoration.

7. Shell has not proposed any avoidance, compensation or mitigation measures for forest loss in the Ambridge Reservoir – or elsewhere. Forest loss mitigation should be required as part of this project.

**Commenter ID:** 22

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

8. The ethane pipeline has the capacity to explode and puts 186 Allegheny County, 990 Beaver County and 461 Washington County residents in the blast zone.

**Commenter ID:** 813

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

9. The range of possibilities for boring is also not just limited to conventional boring and HDD. Guided auger bores, cradle bores, jack bores / hammer bores, guided bores, and FlexBor are all varieties of boring which Shell has not discussed. Some of these methods do not require large amounts of water or drilling fluid, do not pressurize drilling fluid, and do not require the amount of heavy machinery that HDD does.

**Commenter ID: 22**

**Response:** The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Shell describes the conventional bore method and the horizontal directional drill (HDD) method, as trenchless crossing methods, in the Alternatives Analysis section, of its Comprehensive Environmental Assessment document. In addition, Shell discusses limitations that are associated with each of these trenchless crossing methods. In the conventional bore method, these limitations include the requirements of accessibility to the entry and exit locations, a short and straight bore path, and safety and workspace constraints. In the HDD method, these limitations include the need for a sizable workspace area to accommodate the entry and exit points, HDD equipment layout and maneuvering, and the pipeline pulled back through the bore hole. Geotechnical subsurface conditions, geometric surface constraints and the potential for inadvertent returns also limit the implementation of the HDD method.

10. Shell needlessly limits the possible locations for conventional boring by considering conventional boring to not be possible at crossings over 200 feet in length. The Mariner East 2 project thought that the maximum extended for a conventional auger bore of a 16" or 20" diameter pipeline was 390 feet.

**Commenter ID: 22**

**Response:** The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Shell describes the conventional bore method and the horizontal directional drill (HDD) method, as trenchless crossing methods, in the Alternatives Analysis section, of its Comprehensive Environmental Assessment document. In addition, Shell discusses limitations that are associated with each of these trenchless crossing methods. In the conventional bore method, these limitations include the requirements of accessibility to the entry and exit locations, a short and straight bore path, and safety and workspace constraints. In the HDD method, these limitations include the need for a sizable workspace area to accommodate the entry and exit points, HDD equipment layout and maneuvering, and the pipeline pulled back through the bore hole. Geotechnical subsurface conditions, geometric surface constraints and the potential for inadvertent returns also limit the implementation of the HDD method.

11. Shell proposes to cross many natural gas and hazardous liquid pipelines. The Department should require an explanation of what Shell's proposed practices will be to ensure safety at these locations, and an adjustment to Shell's written plans to reflect those practices, if adjustment is needed. The

Department should also take a closer look at whether these locations, especially those near other resources such as aquatic resources, would be better crossed through trenchless methodologies.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits which are the subject of this comment period are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for the necessary permits. The Department has concluded that the applications satisfy the regulatory requirements. The Department has included special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

12. There are multiple open-cut crossings of sewer lines through the Pipeline's proposed route. These crossings, if done improperly, could disrupt or damage these lines.

**Commenter ID: 22**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits which are the subject of this comment period are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for the necessary permits. The Department has concluded that the applications satisfy the regulatory requirements. The Department has included special conditions in the permits to ensure Pennsylvania's water resources are adequately protected. Before construction, Shell will contact the Pennsylvania One Call System to verify any other utility lines including water lines, sewer lines, telecommunication, etc.

13. One commenter determined high consequence areas (HCAs) to determine where pipeline failures could cause major impacts to important areas, such as drinking water supplies, populated areas and sensitive ecological areas.

The commenter also used Pipeline and Hazardous Materials Safety Administration's (PHMSA's) standard equation to calculate the Potential Impact Radius (or Blast Zone) to determine the area impacted if a portion of pipeline were to explode.

Based on this analysis:

- a. Approximately 1,600 people would be in the Blast Zone, but 5,400 would be in the High Consequence Area of the pipeline.
- b. The Ambridge Reservoir is within the HCA area.

- c. This commenter believes sensitive flora and fauna were not considered as a part of Shell's HCA (Risk) assessment analysis.
- d. 11 unconventional oil and gas pads, hosting 48 well heads, are located within Falcon's Blast Zone, as well as a nearby gas pad. Serious incidents have occurred at well pads and processing facilities that could implicate nearby hazardous liquid pipelines.

**Commenter ID: 813**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

Shell is in discussions with the Ambridge Water Authority regarding the mitigation of any potential impacts to the Ambridge Reservoir during construction and operation of the pipeline. Shell will implement the BMPs in its E&S Plan, including antidegradation best available combination of technologies (ABACT) BMPs where require. In addition, Shell, will utilize the procedures in its HDD/IR plan, to avoid and minimize impacts to the Ambridge Reservoir, the watershed that feeds the reservoir, and other waters of the Commonwealth.

In regards to the commenters concerns with flora and fauna, please refer to the Department's responses above in the section entitled, "Comments Regarding the Chapter 105 Applications", comments 31-37.

- 14. One commenter requests for us to define how big the above-mentioned "blast zone" would be.

**Commenter ID: 1352**

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Chapter 102 and 105 permits which are the subject of this comment period are required to protect water resources. The Department has undertaken a thorough evaluation of Shell's applications for the necessary permits. The Department has concluded that the applications satisfy the regulatory requirements. The Department has included special conditions in the permits to ensure Pennsylvania's water resources are adequately protected. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

- 15. 60 of the 97 miles of the Falcon Pipeline qualify as High Consequence Areas.

**Commenter ID:** 37, 1077

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

16. An estimated 8,700 people, 6 daycares, 5 schools and 16 emergency response centers fall within this vulnerable HCA.

**Commenter ID:** 37, 900, 1077

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation.

17. Will an air quality permit be required for the Falcon Ethane Pipeline?

**Commenter ID:** 292, 295

**Response:** Multiple Requests for Determination of Minor Significance (RFDs) have been submitted to the Department to evaluate whether there are any air contamination sources associated with this project that will require a plan approval. The Department is currently evaluating the RFDs.

18. None of the risks to the region's air quality are addressed in this permit nor any other permit that assesses regional impacts.

**Commenter ID:** 848

**Response:** Multiple Requests for Determination of Minor Significance (RFDs) have been submitted to the Department to evaluate whether there are any air contamination sources associated with this project that will require a plan approval. The Department is currently evaluating the RFDs.

19. I request that emissions from the cracker plant be monitored daily.

**Commenter ID:** 1131

**Response:** Please refer to that permit for more information. The permit may be reviewed on the Department's website. The Chapter 102 and 105 permits which are the subject of this comment period

are required to protect water resources. The Air Quality Permit for Shell's Ethane Cracker Plant has monitoring requirements.

20. Why in their DEP application does Shell deny that the Shell Pipeline will produce air emissions like NOX and VOCs?

**Commenter ID:** 214

**Response:** Multiple Requests for Determination of Minor Significance (RFDs) have been submitted to the Department to evaluate whether there are any air contamination sources associated with this project that will require a plan approval. The Department is currently evaluating the RFDs.

21. The construction of various pipelines in our state is fragmenting forests and will negatively affect wildlife in the long term.

**Commenter ID:** 812, 813, 1229

**Response:** The Department received input from and conferred with many state and federal organizations including the Pennsylvania Department of Conservation and Natural Resources (DCNR), the Pennsylvania Fish and Boat Commission (PFBC), the Pennsylvania Game Commission (PGC), the U.S. Fish and Wildlife Service (USFWS), as well as the Allegheny, Beaver and Washington County Conservation Districts. To minimize the project footprint, the pipeline route is co-located with other existing utility ROWs, as much as possible.

The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

22. It is expected that this project will only lead to 4-6 permanent jobs and numerous temporary (construction) jobs.

**Commenter ID:** 354, 904, 1400

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

23. There is a conflict of interest regarding Beaver County Conservation District's review of the pipeline route, because the Conservation District has an easement agreement with Shell Pipeline for the current pipeline route through its property.

**Commenter ID:** 282

**Response:** The Department conducted an independent review of the Chapter 102 permit applications, including a review of the Beaver County ES Plan.

24. The truck traffic due to increases due to construction will further climate change.

**Commenter ID:** 354

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. DEP has a legal responsibility to ensure Shell's adherence to environmental laws throughout the project's administration. The specific subjects of this comment period are the Chapter 102 and 105 permits, which are required to protect the Commonwealth's water resources. After conducting a thorough and comprehensive evaluation of Shell's applications for those permits, the Department has determined that the applicant has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. In addition to concluding that the applications satisfy the Commonwealth's legal requirements, the Department has taken the added precaution of including special conditions in the permits to ensure Pennsylvania's water resources are adequately protected.

25. The build out of production wells needed to sustain the Shell petrochemical facility will ultimately put a significant strain on regional resources and waste disposal facilities.

**Commenter ID:** 672

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

26. Does the subsidiary have the financial resources/insurances to cover the cost of repairs for one or more accidents?

**Commenter ID:** 660, 1400

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Should Shell cause environmental harm during construction of the project, it will be required to remediate that harm.

27. There should be a substantial Environmental bond required for construction in the Service Creek watershed as well as other areas where water supply resources will be put at risk.

**Commenter ID:** 1283

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. Should Shell cause environmental harm during construction of the project, it will be required to remediate that harm.

28. What will be the toll in our farmland? In Beaver County alone there are 17,820 fields averaging 11.4 acres/field. (AcreValue) What percent will be affected by the pipeline?

**Commenter ID:** 1400

**Response:** Shell's application includes provisions to minimize impacts to prime farmlands. Shell is required to stabilize and restore to meadow in good condition. All disturbed areas will be monitored until permanent vegetation is established.

29. The fracking industry cannot avoid the transmission of fracking chemicals into the air and water.

**Commenter ID:** 1375

**Response:** Shell's application included a Preparedness, Prevention and Contingency (PPC) Plan for Construction Activities. This plan provides a course of action, should an accident occur. Additionally, Shell submitted an Inadvertent Returns from HDD: Assessment, Preparedness, Prevention and Response Plan. This plan provides a course of action should an inadvertent return occur. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will retain jurisdiction with respect to the pipeline's safe operation. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

30. I am concerned about the vulnerability of the Falcon pipeline to cyberattack.

**Commenter ID:** 977

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.

31. What will be done to repair damage when accidents happen?

**Commenter ID:** 1207

**Response:** DEP's jurisdiction over this project relates to administration and enforcement of the applicable environmental laws. The Department has jurisdiction to investigate incidents of pollution and



require mitigation of any environmental impacts.

32. Considering the calculated high consequence zone setback of 1000 feet, shouldn't proper setbacks that ensure public safety be in place?

**Commenter ID:** 144

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project. Once pipeline construction has commenced and throughout its operation, the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) will have jurisdiction with respect to its safe operation.

33. How many barrels a day of ethane will pass through the pipeline?

**Commenter ID:** 144

**Response:** The Department acknowledges the comments regarding this proposed pipeline project. The Department does not regulate the transmission of the materials through the pipeline. The Department has determined that Shell has satisfied the applicable Commonwealth statutory and regulatory requirements for obtaining Chapter 102 and Chapter 105 permits associated with this project.