

**EXPLANATION OF SIGNIFICANT DIFFERENCES
ARMY CREEK LANDFILL SUPERFUND SITE
NEW CASTLE COUNTY, DELAWARE**

I. INTRODUCTION AND STATEMENT OF PURPOSE

Site Name: Army Creek Landfill (DED980494496)

Site Location: New Castle County, Delaware

Lead Agency: U.S. Environmental Protection Agency, Region III

Support Agency: Delaware Department of Natural Resources and Environmental Control

Statement of Purpose: The United States Environmental Protection Agency (“EPA”) is issuing this Explanation of Significant Differences (“ESD”) for the Army Creek Landfill Superfund Site (“Site”) in accordance with Section 117(c) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (“CERCLA”), 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (“NCP”), 40 C.F.R. § 300.435(c)(2)(i). Section 117(c) of CERCLA and Section 300.435(c)(2)(i) of the NCP requires the publication of an ESD when modifications to the selected remedy are necessary, and such modifications significantly change, but do not fundamentally alter, the remedy selected in a Record of Decision (“ROD”) with respect to scope, performance, or cost.

The Site is comprised of two operable units (“OUs”):

- OU-1 addresses source controls and extraction of contaminated groundwater; and
- OU-2 addresses the treatment of extracted groundwater discharged to Army Creek.

EPA selected remedies for OU-1 and OU-2 in two separate RODs dated September 30, 1986 and June 29, 1990, respectively, (hereinafter collectively referred to as the “Selected Remedy”). While certain land and groundwater use restrictions were subsequently implemented through a 1991 Consent Decree (“CD”) and a 2006 Groundwater Management Zone (“GMZ”; attached as Appendix A), a change to the Selected Remedy is necessary because neither the 1986 ROD nor the 1990 ROD required the implementation of land and groundwater use restrictions. In this ESD, EPA is modifying the Selected Remedy to require the land and groundwater use restrictions be implemented at the Site to ensure the long-term protectiveness of the Selected Remedy.

II. SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

A. Site History and Contamination

The 50-acre Site is located in New Castle, Delaware just east of the U.S. Route 13 railroad overpass and west of Delaware Route 9. The Site is an abandoned sand and gravel quarry (“Army Creek Landfill” or “Landfill”) which was operated by New Castle County (“the County”) from

1960 through 1968 for the disposal of two million cubic yards of municipal and industrial waste. The Landfill is bordered to the northwest by railroad tracks and to the southeast by Army Creek, which is a tributary of the Delaware River. The Delaware Sand & Gravel Landfill Superfund Site is located immediately east of the Army Creek Landfill on the opposite side of Army Creek.

The Columbia Aquifer is the uppermost aquifer beneath the Army Creek Landfill, and it is underlain by the Upper Potomac Aquifer. The Upper Potomac Aquifer is a primary source of water for the local water utility, the Artesian Water Company. The Columbia Aquifer is separated from the Upper Potomac Aquifer by the Upper Potomac Confining Unit (“UPCU”), a regionally competent clay unit. Paleochannels exist near the Site where the UPCU has been eroded away and replaced by sand, gravels and cobbles. In addition, deep excavations during quarrying and landfill operations may have removed portions of the UPCU. These “zero-clay” areas represent potential pathways for leachate migration from the Columbia Aquifer into the Upper Potomac Aquifer.

Groundwater contamination was initially detected in 1971, when landfill leachate constituents were discovered in a residential well in the Llangollen Estates housing development, which lies south of and adjacent to the Landfill. In 1972, the County began a groundwater investigation which indicated that leachate originating from the Army Creek Landfill and the Delaware Sand & Gravel Landfill had contaminated local aquifers with volatile organic compounds (“VOCs”), semivolatile organic compounds (“SVOCs”), and metals.

In 1973, the County installed groundwater recovery wells in the Upper Potomac Aquifer between the Army Creek Landfill and Artesian Water Company’s Llangollen well field to intercept and contain the contaminant plume emanating from the Landfill. The recovered groundwater was discharged untreated to Army Creek. The County subsequently moved pumping locations closer to the Landfill to improve system performance.

The Site was proposed for the National Priorities List (“NPL”) in October of 1981 and finalized on the NPL on September 8, 1983.

B. Selected Remedy

On September 30, 1986, EPA issued a ROD for OU-1. The OU-1 remedial action objectives (“RAOs”) were to minimize further groundwater contamination by reducing the leachate generated by the Landfill and to control the migration of contaminated groundwater. The OU-1 Selected Remedy includes two phases and the components listed below:

- Phase I
 - Installation of a multi-layer landfill cap;
 - Continued operation of the downgradient recovery well network; and
 - Evaluation of the remedial action for five years following cap installation to assess effectiveness of the system during operation.

- Phase II
 - Installation of upgradient groundwater controls, if determined to be necessary based on the five-year evaluation.¹

On June 29, 1990, EPA issued a ROD for OU-2. The OU-2 RAO was to ensure that the recovery well discharges did not exceed applicable Delaware Surface Water Quality Standards (“DSWQS”) that are protective of the designated uses of the Army Creek.

The OU-2 Selected Remedy includes:

- Construction and operation of a water treatment facility capable of reducing the concentration of iron in the extracted groundwater to a level that is protective of the designated uses of Army Creek; and
- Long-term monitoring of the surface water, sediments and recovered groundwater quality to gauge the effectiveness of the remedy, and a wetland monitoring and evaluation plan.

C. Remedy Implementation

On September 12, 1991, the United States, on behalf of the EPA Administrator, the State of Delaware, and 17 cooperating potentially responsible parties (“PRPs”) entered into a Consent Decree (“CD”) for Remedial Design and Remedial Action. Pursuant to the CD, the PRPs implemented the remedial action for OU-1 as well as the remedial design and remedial action for OU-2. The PRPs started cap construction in May 1992. The cap construction included:

- Site filling and grading as necessary to achieve design contours and slopes for the cap system;
- Installation of a multilayer cap system;
- Installation of settlement markers and gas vents; and
- Installation of a security fence.

The remedial design for the water treatment facility was completed by the PRPs and approved by EPA in July 1991. The construction of the water treatment facility took place from June 1992 to December 1993. The major construction components of the water treatment facility included:

- Construction of water treatment building and influent pump station;
- Installation of underground piping to reroute the recovery well discharge water from Army Creek to the new pump station;
- Installation of water treatment support structures (i.e. aerators, chemical oxidant tank, etc.); and
- Start-up and testing.

¹ The County submitted a Five-Year Evaluation Report in 2000. Based on the report, EPA determined that installation of upgradient groundwater controls was not necessary.

EPA, the Delaware Department of Natural Resources and Environmental Control (“DNREC”), and the PRPs conducted final inspections of the cap in November 1993 and of the treatment plant in January 1994. Treatment plant effluent laboratory results submitted to EPA in January 1994 indicated that the system was achieving performance standards and effluent was meeting the 1,000 micrograms per liter (“µg/L”) discharge limit for iron. On September 29, 1995, EPA and the State approved the Remedial Action Report, which documented that all remedial action construction activities were performed according to specifications.

III. DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR SUCH DIFFERENCES

Land and groundwater use restrictions are necessary at the Site to protect the landfill cap and other remedy components, and to prevent exposure to contaminated materials in the Landfill, and contaminated groundwater.

This ESD modifies the Selected Remedy to include the implementation of the following land and groundwater use restrictions:

- There shall be no activities (including, but not limited to digging, drilling, excavating, grading, constructing, earth moving, or any other land disturbing activity) that would disturb or interfere with any of the capped areas without prior written approval from EPA and DNREC.
- No new public or domestic water supply wells shall be allowed or permitted in the unconfined Columbia Aquifer and any hydraulically interconnected or confined Potomac Aquifer units within the GMZ Area A (refer to Appendix A).
- No new public or domestic water supply wells or non-potable wells will be allowed in the unconfined Columbia Aquifer and any hydraulically interconnected Potomac Aquifer units within the GMZ Area B (refer to Appendix A) without demonstrating that well construction will likely prevent the movement of potential contaminants into the well; that potentially contaminated groundwater will be sufficiently treated to applicable use standards; and following joint review and approval by both the DNREC Division of Waste and Hazardous Substances (formerly the Division of Air and Waste Management, “DAWM”) and the Division of Water (formerly the Division of Water Resources, “DWR”).
- Monitoring, observation, and contaminant recovery wells may be installed in the GMZ Areas A and B following joint review and approval by both the DNREC Division of Waste and Hazardous Substances and the Division of Water.

These modifications, collectively, represent a significant change to the Selected Remedy with respect to scope and performance. The land and groundwater use restrictions will protect the Selected Remedy and prevent exposure to waste material, contaminated soil, and groundwater. Thus, the Selected Remedy, as modified, will remain protective of human health and the environment.

A. Documentation of Institutional Controls

The 1991 CD established the need for the County, a Settling Defendant under the CD, to implement certain land use and property conveyance restrictions to protect the landfill cap and other remedy components and to prevent exposure to contaminated materials in the landfill. These land use restrictions apply only to portions of the Site owned by the County. However, most of the Army Creek Landfill is owned by the Delaware Department of Transportation and is, therefore, not subject to the land use restrictions under the 1991 CD.

Groundwater restrictions have been in effect at the Army Creek Landfill since June 2006 when DNREC's DAWM and DWR entered into a Memorandum of Agreement establishing a Groundwater Management Zone encompassing the Site (refer to Appendix A).

An Environmental Covenant will need to be developed and executed pursuant to 7 *Del. C.* ch.79, subchapter II, Uniform Environmental Covenants Act (UECA). The Environmental Covenant will need to establish land use restrictions for the landfill areas owned by the Delaware Department of Transportation to ensure long term protectiveness of the remedy.

IV. SUPPORT AGENCY COMMENTS

In accordance with 40 C.F.R. § 300.435(c)(2), EPA consulted with DNREC on the proposed modification to the Selected Remedy. In an email message dated January 24, 2020, DNREC indicated it had no comments regarding this ESD.

V. STATUTORY DETERMINATIONS

EPA has determined that the change to the Selected Remedy described in this ESD complies with the statutory requirements of Section 121 of CERCLA, 42 U.S.C. § 9621. Furthermore, EPA has determined that the Selected Remedy, as modified by this ESD, will remain protective of human health and the environment, will comply with Federal and State requirements that are applicable or relevant and appropriate to this remedial action, and will be cost-effective.

VI. PUBLIC PARTICIPATION COMPLIANCE

Pursuant to Section 117(d) of CERCLA, 42 U.S.C. § 9617(d), and Section 300.435(c) of the NCP, 40 C.F.R. § 300.435(c)(2)(i)(B), EPA will publish a notice of availability and a brief description of the ESD in the Delaware News Journal.

In accordance with Section 300.825(a)(2) of the NCP, 40 C.F.R. § 300.825(a)(2), the documents that form the basis for EPA's issuance of this ESD have been incorporated into the Administrative Record. The Administrative Record is available for public review online at <https://semspub.epa.gov/src/collection/03/AR66261>, and at the following locations:

U.S. Environmental Protection Agency, Region III
Administrative Record Reading Room
1650 Arch Street
Philadelphia, PA 19103-2029
Phone: (215) 814-3157
Hours: Monday – Friday, 8:00 AM to 4:00 PM
Please call to schedule an appointment.

Delaware Department of Natural Resources and Environmental Control
Visitor's Office
391 Lukens Drive
New Castle, DE 19720-2774
Phone: (302) 395-2600
Hours: Monday – Friday, 8:15 AM to 4:30 PM

VII. SIGNATURE

This Explanation of Significant Differences modifies the Selected Remedy set forth in the 1986 and 1990 RODs for the Site to include institutional controls which will restrict the groundwater contamination plume and protect the landfill cap.



Paul Leonard, Acting Director
Superfund and Emergency Management Division
U.S. EPA Region III

02/06/2020
Date

Appendix A

**Amended Memorandum of Agreement
Department of Natural Resources and Environmental Control
Between Division of Air and Waste Management
And Division of Water Resources
For Army Creek & Vicinity
(June 2006)**



Amended Memorandum of Agreement

Department of Natural Resources and Environmental Control

Between:
Division of Air and Waste Management
and
Division of Water Resources



For:

Army Creek & Vicinity
New Castle, Delaware

June 2006

WHEREAS, the Army Creek Landfill site (DE-0001), Army Creek Marsh site (DE-1163), Denton Landfill site (DE-0015), Industrial Products Company site (DE-0030), Former Amoco Polymer site (DE-0084), Amoco Asbestos Landfill site (DE-0083), Former Amoco Film site (DE-1152), Petrillo Property site (DE-1281), Wilson Contracting Company Landfill site (DE-0146), and the Delaware Sand & Gravel site (DE-0017) ("sites") shown in Attachment 1 have been investigated by the United States Environmental Protection Agency ("US EPA") and/or the Delaware Department of Natural Resources and Environmental Control, Site Investigation & Restoration Branch ("DNREC-SIRB"); and

WHEREAS, the findings are available in the remedial investigation ("RI") reports (or similar), and subsequent reports, which are contained within each site's administrative records; and those reports document the extent of groundwater contamination in the area of the sites; and

WHEREAS, the DNREC Division of Air and Waste Management ("DAWM") is responsible for the investigation and cleanup of hazardous substance releases in the State of Delaware; and

WHEREAS, the DNREC Division of Water Resources ("DWR") is responsible for management of the withdrawal of waters in the State of Delaware; and

WHEREAS, DNREC's intent is to formally establish a groundwater management zone ("GMZ") for the sites that is consistent with Subsections 2.2, 3.2, 3.6, 4.2, and 4.4 of Delaware's Comprehensive State Ground Water Protection Program ("CSGWPP"); and

WHEREAS, significant water bearing units in the vicinity of the sites include the Columbia and Potomac aquifers (McKenna et al., 2004 and McLaughlin et al., 2002); and

WHEREAS, the Columbia aquifer and any hydraulically interconnected Potomac aquifer units have been or have the potential for being impacted by the sites; and

WHEREAS, public drinking water wells in the Llangollen Wellfield, each screened within the Potomac Aquifer at depths ranging from 90 to 200 feet below ground surface, have documented ground-water contamination by volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs) and metals (DNREC 2002); and

WHEREAS, DNREC has determined that a GMZ for the Columbia aquifer and any hydraulically interconnected Potomac aquifer units underlying the sites and surrounding areas is appropriate to protect exposure of the public by way of known and/or potential groundwater contamination and for management of known and/or potential releases at the sites and surrounding areas; and

WHEREAS, the intent of this GMZ agreement is to provide administrative control aimed at minimizing the risks posed by contaminated groundwater beneath and in the vicinity of the sites and is only part of the approved final remedial actions; and

WHEREAS, DNREC determined that two GMZ Areas (Attachment 2), are appropriate for management of releases at the sites, and to protect exposure of the public by way of potential groundwater contamination; the GMZ Areas consist of the following:

- **GMZ Area A:** approximately from the convergence of Route 13 and Route 40/301 to the northeast along the Norfolk Southern rail line to Army Creek; southeast along Army Creek to the Delaware River; and southwest along the Delaware River to the southern boundary of the Denton Landfill property. The southern boundaries of GMZ Area A are defined by Army Creek, the southern boundary of tax parcel 5, the southern and eastern boundary of tax parcel 41, Grantham Lane and Route 9 to Tiger Avenue in New Castle County, as shown on Attachments 1, 2 and 3; and

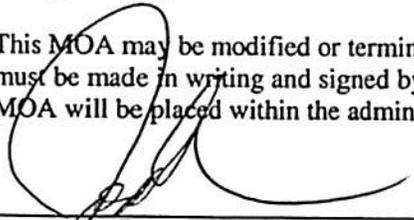
- GMZ Area B: approximately from the convergence of Route 13 and Route 40/301 east-northeast along Army Creek to the southern boundary of tax parcel 5, the southern and eastern boundary of tax parcel 41, and Grantham Lane; southwest along Route 9 to Tiger Avenue and the Denton Landfill property; and southwest along the Delaware River to Gambles Gut. The southern boundary of GMZ Area B is generally defined by Werden Drive, tax parcels 454, 537, and 552 and a tributary of Gambles Gut in New Castle County, as shown on Attachments 1, 2, and 3; and

WHEREAS, Attachment 3 shows tax parcels within the GMZ Areas; and Attachment 4 lists the tax parcel numbers of the properties affected.

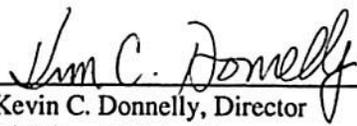
NOW, THEREFORE, IT IS AGREED BY DAWM AND DWR AS FOLLOWS:

1. A GMZ shall be established to include the sites and surrounding areas as defined both in the text and on the attached maps, Attachments 1, 2 and 3.
2. No new public or domestic water supply wells will be allowed or permitted in the unconfined Columbia aquifer and any hydraulically interconnected or confined Potomac aquifer units within the GMZ Area A.
3. No new public or domestic water supply wells or non-potable wells will be allowed in the unconfined Columbia aquifer and any hydraulically interconnected Potomac aquifer units within the GMZ Area B without demonstrating that well construction will likely prevent the movement of potential contaminants into the well; that potentially contaminated groundwater will be sufficiently treated to applicable use standards; and following joint review and approval by both DWR and DAWM.
4. Monitoring, observation, and contaminant recovery wells may be installed in the GMZ Areas A and B following joint review and approval by DWR and DAWM.
5. Permits for any wells in the GMZ Areas A and B may be issued by DWR following joint review and approval by both DWR and DAWM.

This MOA may be modified or terminated only upon the agreement of both parties. Any modifications must be made in writing and signed by the Director of DAWM and the Director of DWR. A copy of this MOA will be placed within the administrative record for each of the sites.



 James B. Werner, Director
 Division of Air and Waste Management
 Date: 2 JUNE 2006



 Kevin C. Donnelly, Director
 Division of Water Resources
 Date: 4/7/06

TTR:sbk
 TTR05008.doc
 DE 0001/0017 II H3

- Attachment 1: SIRB Sites Within GMZ For Army Creek & Vicinity
- Attachment 2: GMZ Area A & B For Army Creek & Vicinity – New Castle, Delaware
- Attachment 3: Tax Parcels Within Army Creek & Vicinity GMZ Area A & B – New Castle, Delaware
- Attachment 4: List of Tax Parcel Numbers of Properties included in the GMZ Area A & B

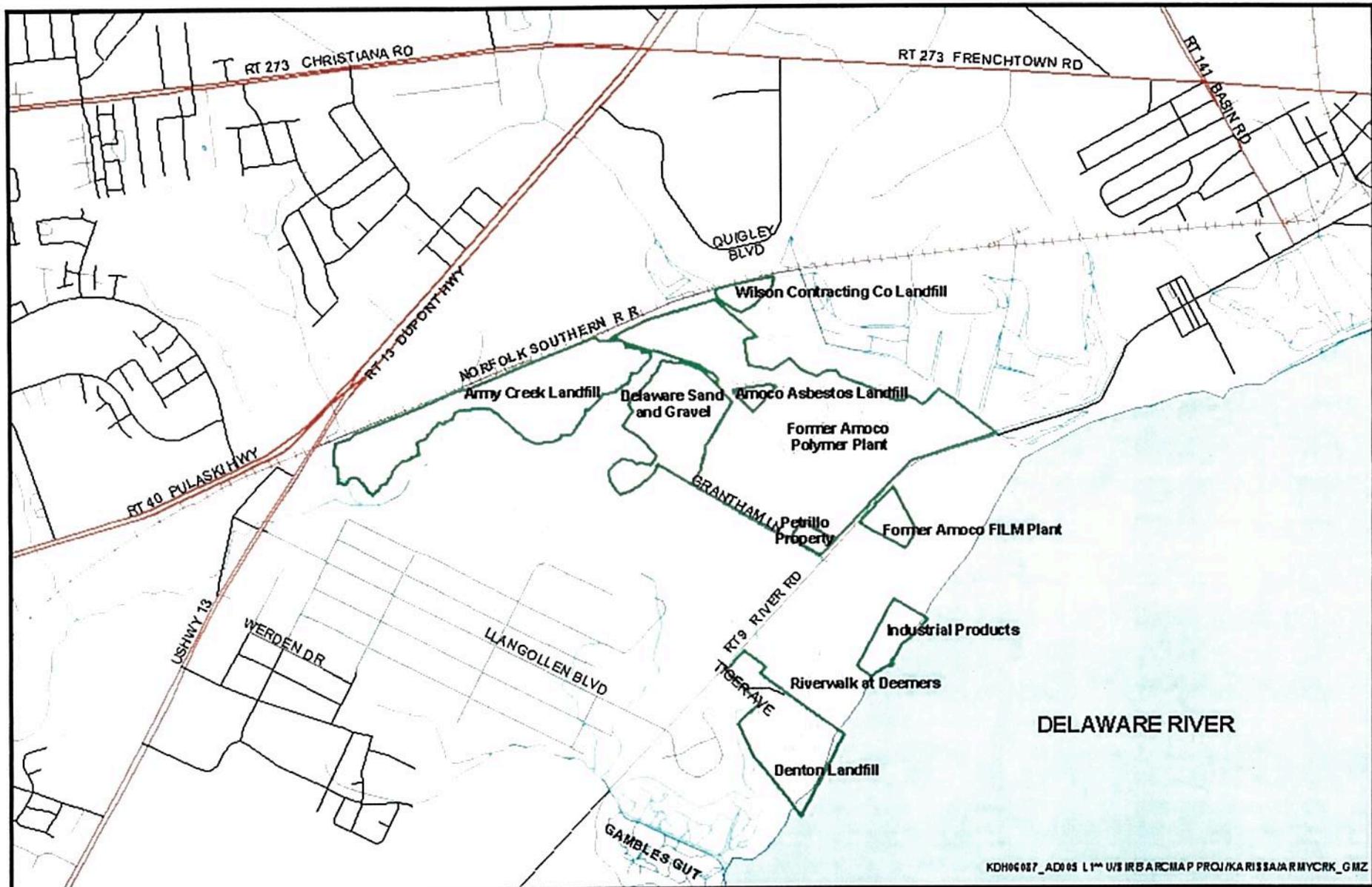
pc: Kathy Stiller Banning, DNREC DAWM with Attachments
 John Barndt, DNREC DWR with Attachments

REFERENCES

Department of Natural Resources and Environmental Control, 2002, *The Impact of Known and Suspected Contaminant Sources on Select Public Drinking Water Supplies in Delaware*, 80 p.

McKenna, T. E., McLaughlin, P. P., and Benson, R. N., 2004, *Characterization of the Potomac Aquifer, an extremely heterogeneous fluvial system in the Atlantic Coastal Plain of Delaware*, 4 p.

McLaughlin, P.P, Baxter, S.J., Ramsey, K.W., McKenna, T.E., and Strohmeier, S.A., 2002, *Results of Trenching Investigations Along the New Castle Railroad Survey-1 Seismic Line, New Castle, Delaware*, 19 p.

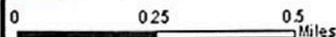


KDH06087_AD005 L1M U3 IRB ARCHA P PROJ/KARISSAMMYCRK_GMZ

ARMY CREEK GMZ

AREA A

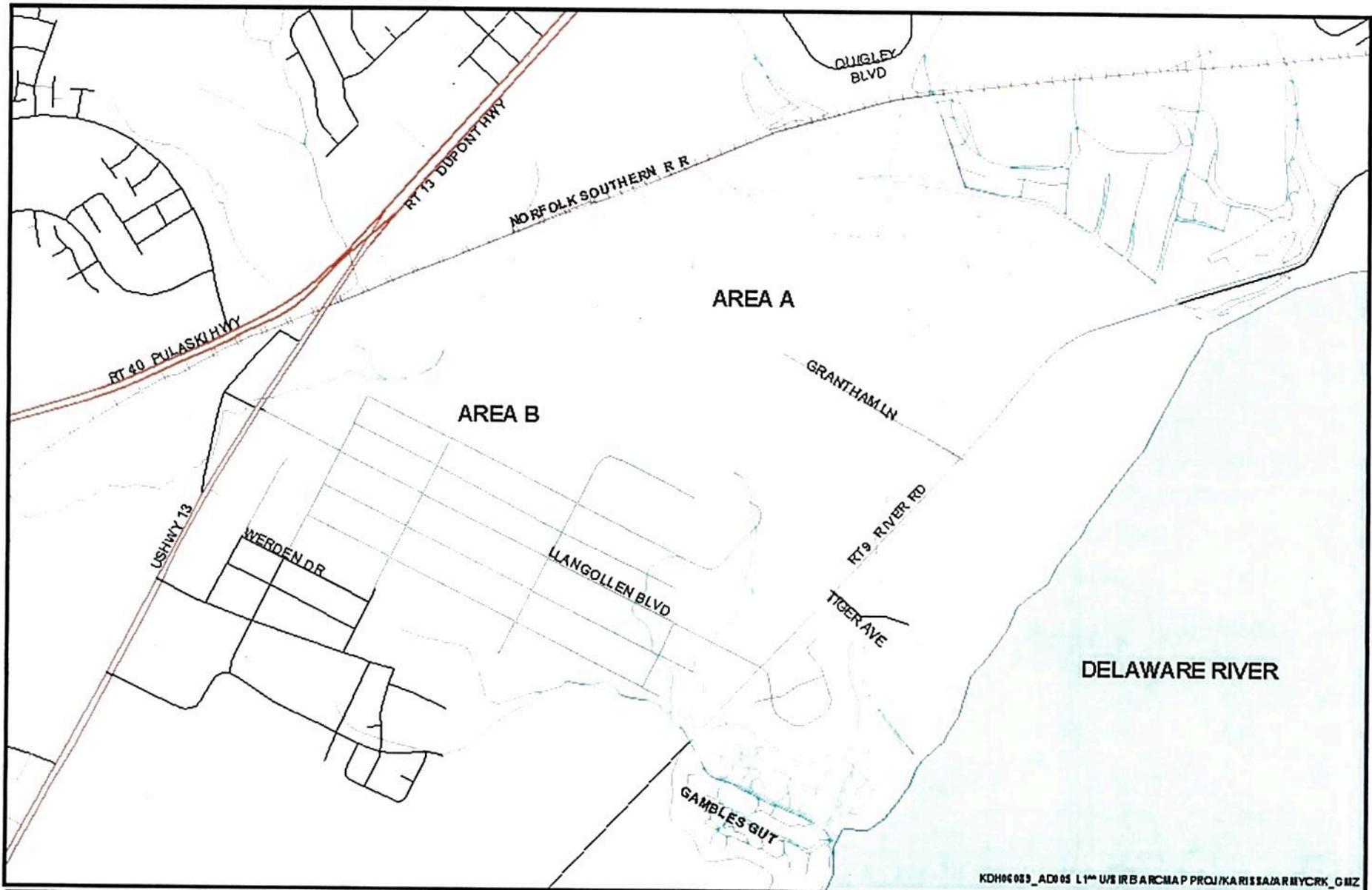
- GMZA
- GMZ B
- DNREC-SIRB SITES



SITE INVESTIGATION &
RESTORATION BRANCH
391 LUKENS DR
NEW CASTLE, DE 19720-2774
302.395.2600

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**ATTACHMENT 1
SIRB SITES WITHIN
GMZ FOR
ARMY CREEK & VICINITY**



KDH06083_AD005 1"= 0.5 IR BARCMAP PROJ/KARISSA/ARMYCRK_GMZ

ARMY CREEK GMZ

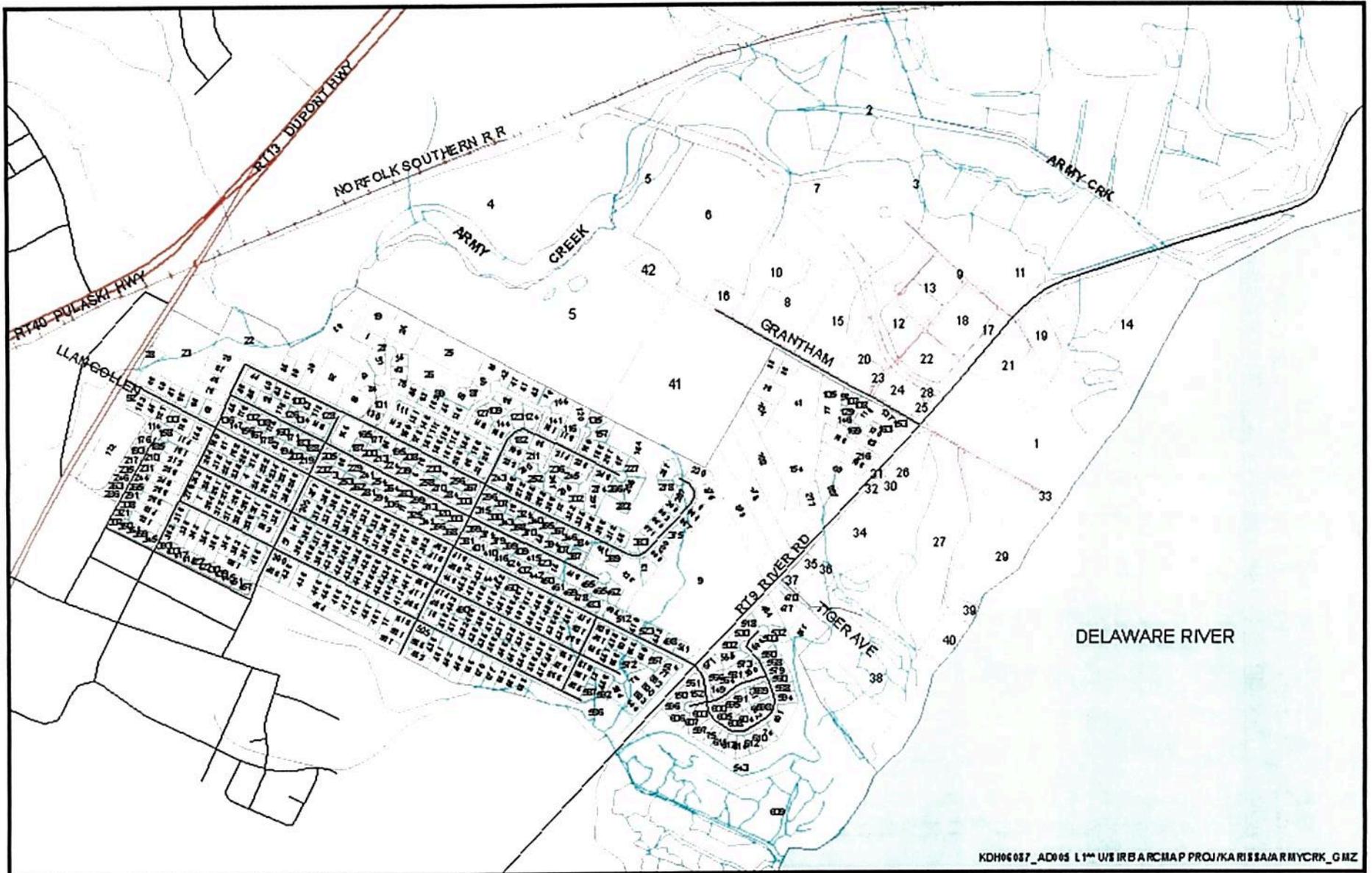
- ARE A**
- GMZA
 - GMZ B



**SITE INVESTIGATION &
RESTORATION BRANCH**
391 LUKENS DR
NEW CASTLE, DE 19720-2774
302.395.2600

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**ATTACHMENT 2
GMZ AREA A & B FOR
ARMY CREEK & VICINITY
NEW CASTLE, DELAWARE**



KDH06087_AD005 1:1" U/S IRB ARCMAP PROJ/KARISSA/ARMYCRK_GMZ

ARMY CREEK GMZ

AREA

- A
- B

0 0.25 0.5 Miles



**SITE INVESTIGATION &
RESTORATION BRANCH**
391 LUKENS DR
NEW CASTLE, DE 19720-2774
302.395.2600

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**ATTACHMENT 3
TAX PARCELS WITHIN
ARMY CREEK & VICINITY
GMZ AREA A & B
NEW CASTLE, DELAWARE**

ATTACHMENT 4 - TAX PARCELS FOR ARMY CREEK & VICINITY GMZ AREA A

<u>Parcel ID</u>	<u>Map ID</u>						
1003600003	1						
1003000046	2						
1003600007	3						
1003500002	4						
1003500056	5						
1003500006	6						
1003000076	7						
1003500060	8						
1003500066	9						
1003500008	10						
1003600008	11						
1003500064	12						
1003500009	13						
1003600010	14						
1003500061	15						
1003500007	16						
1003500010	17						
1003500065	18						
1003600001	19						
1003500062	20						
1003600006	21						
1003500058	22						
1003500066	23						
1003500063	24						
1003500010	25						
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1003500043	27						
1003500011	28						
1003600009	29						
1003500046	30						
1003500045	31						
1003500044	32						
1003600005	33						
1003500067	34						
1003500042	35						
1003500040	36						
1003500041	37						
1003500039	38						
1003500070	39						
1003500050	40						
1003500005	41						
1003500006	42						

ATTACHMENT 4 - TAX PARCELS FOR ARMY CREEK & VICINITY GMZ AREA B

<u>Parcel ID</u>	<u>Map ID</u>						
1003510035	1	1003510068	51	1003510045	101	1004120049	151
No Parcel		1003510022	52	1003400086	102	1004120044	152
1003530215	3	1003420002	53	1003510057	103	1003500019	153
1003530023	4	1003400085	54	1003500053	104	1003500031	154
1003530264	5	1003510012	55	1003500069	105	1003420006	155
1003530251	6	1003510058	56	1003510071	106	1003530001	156
1003440075	7	1003530111	57	1003500016	107	1003530321	157
1003540031	8	1003530241	58	1003500017	108	1003420004	158
1003500035	9	1003540019	59	1003510077	109	1003530295	159
1003530269	10	1003530073	60	1003510016	110	1003510008	160
1003530066	11	1003530018	61	1003510047	111	1003530319	161
1003530281	12	1003500022	62	1003400087	112	1003530296	162
1003540037	13	1003530004	63	1003510021	113	1003500020	163
1003530168	14	1003530259	64	1003420003	114	1003540016	164
1003530234	15	1003530305	65	1003510009	115	1003530257	165
1003530199	16	1003530217	66	1003510073	116	1003500025	166
1003530124	17	1003540011	67	1003510050	117	1003530002	167
No Parcel		1003500028	68	1003500018	118	1003530301	168
1003510036	19	1003530289	69	1003510039	119	1003500023	169
1003510040	20	1003530262	70	1003510074	120	1003500021	170
No Parcel		1004120011	71	1003400084	121	1003530010	171
1003510001	22	1004110019	72	1003500032	122	1003500033	172
1003400077	23	1004120004	73	1003510081	123	1003530294	173
1003510037	24	1004120031	74	1003510082	124	1003440041	174
1003510038	25	1004120037	75	1003510059	125	1003530297	175
1003510060	26	1003500054	76	1003510017	126	1003440001	176
1003510041	27	1003500014	77	1003510078	127	1003530258	177
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1003510030	29	1003510005	79	1003500055	129	1003530320	179
1003510002	30	1003510013	80	1003510046	130	1003530019	180
1003510042	31	1003400081	81	1003510048	131	1003530293	181
1003510031	32	1003510025	82	1003510011	132	1003530302	182
1003500012	33	1003510069	83	1003400083	133	1003530009	183
1003510052	34	1003510044	84	1003510018	134	1003530298	184
1003510028	35	1003510055	85	1003510075	135	1003440020	185
1003510065	36	1003510032	86	1003510006	136	1003530292	186
1003510003	37	1003510063	87	1003500051	137	1003530256	187
1003500013	38	1003510014	88	1003510010	138	1003530008	188
1003510029	39	1003510061	89	1003420005	139	1003530322	189
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1003510066	42	1003400102	92	1003510051	142	1003530017	192
1003510053	43	1003510056	93	1003510019	143	1003440002	193
1003510027	44	1003510070	94	1003510080	144	1003530005	194
1003510004	45	1003510062	95	1003510033	145	1003530260	195
1003400079	46	1003510015	96	1003500024	146	1003530323	196
1003510067	47	1003500015	97	1003510007	147	1003530291	197
1003510064	48	1003420001	98	1003510079	148	1003500027	198
1003400080	49	1003510076	99	1004120018	149	1003530303	199
1003510026	50	1003510023	100	1004120043	150	1003530255	200

ATTACHMENT 4 - TAX PARCELS FOR ARMY CREEK & VICINITY GMZ AREA B

<u>Parcel ID</u>	<u>Map ID</u>						
1003530300	201	1003530024	251	1003530031	301	1003530088	351
1003530016	202	1003530308	252	1003530315	302	1003530039	352
1003530006	203	1003530061	253	1003530247	303	1003540023	353
1003440071	204	1003530220	254	1003440076	304	1003440077	354
1003530216	205	1003440072	255	1003530084	305	1003530272	355
1003500034	206	1003530265	256	1003530065	306	1003530069	356
1003540010	207	1003500029	257	1003530268	307	1003540033	357
1003530261	208	1003530250	258	1003440026	308	1003530243	358
1003530290	209	1003530286	259	1003530282	309	1003530227	359
1003440021	210	1003530025	260	1003530080	310	1003530277	360
1003530306	211	1003530034	261	1003530030	311	1003440030	361
1003440039	212	1003530062	262	1003530035	312	1003440132	362
1003530254	213	1003440006	263	1003530224	313	1003530075	363
1003530311	214	1003530221	264	1003440034	314	1003530089	364
1003530015	215	1003440024	265	1003530246	315	1003530109	365
1003500026	216	1003540015	266	1003530029	316	1003530044	366
1003440003	217	1003530266	267	1003530036	317	1003530273	367
1003530020	218	1003540013	268	1003530085	318	1003530070	368
1003530007	219	1003440036	269	1003440080	319	1003440031	369
1003540029	220	1003530249	270	1003530225	320	1003530242	370
1003530012	221	1003530083	271	1003440027	321	1003540022	371
1003530014	222	1003530285	272	1003530280	322	1003540018	372
1003530304	223	1003530026	273	1003530078	323	1003530074	373
1003530253	224	1003530317	274	1003530270	324	1003530228	374
1003530021	225	1003530033	275	1003530067	325	1003540034	375
1003530312	226	1003540030	276	1003530028	326	1003530090	376
1003540012	227	1003500030	277	1003530086	327	1003530108	377
1003530288	228	1003540027	278	1003530037	328	1003530091	378
1003530218	229	1003440074	279	1003440079	329	1003530229	379
1003440038	230	1003530314	280	1003530245	330	1003530107	380
1003440022	231	1003530063	281	1003440033	331	1003530146	381
1003530059	232	1003540014	282	1003540024	332	1003530042	382
1003530263	233	1003530222	283	1003530226	333	1003540021	383
1003530013	234	1003530248	284	1003540032	334	1003530275	384
1003440004	235	1003530284	285	1003530279	335	1003530104	385
1003530310	236	1003440007	286	1003530077	336	1003530114	386
1003540028	237	1003540026	287	1003440028	337	1003530238	387
1003530022	238	1003530027	288	1003530087	338	1003540036	388
1003530252	239	1003530082	289	1003530038	339	1003540039	389
1003530307	240	1003530032	290	1003530271	340	1003530134	390
1003530219	241	1003440025	291	1003530068	341	1003530049	391
1003440073	242	1003530079	292	1003440078	342	1003530072	392
1003530287	243	1003540025	293	1003530244	343	1003440081	393
1003440023	244	1003530064	294	1003530043	344	1003530240	394
1003530313	245	1003440035	295	1003440032	345	1003530092	395
1003440005	246	1003530267	296	1003530274	346	1003530106	396
1003530309	247	1003530316	297	1003530110	347	1003530041	397
1003440037	248	1003530283	298	1003530278	348	1003530112	398
1003530318	249	1003530223	299	1003530076	349	1003530230	399
1003530011	250	1003530081	300	1003440029	350	1003540035	400

ATTACHMENT 4 - TAX PARCELS FOR ARMY CREEK & VICINITY GMZ AREA B

<u>Parcel ID</u>	<u>Map ID</u>						
1003530147	401	1003530047	451	1003530208	501	1004120007	551
1003530071	402	1003530165	452	1003540041	502	1004110003	552
1003440082	403	1003530172	453	1003540046	503	1004110017	553
1003530093	404	1003530049	454	1003540008	504	1004110012	554
1003530105	405	1003530236	455	1003530211	505	1004110005	555
1003530040	406	1003530098	456	1003540047	506	1004120006	556
1003530239	407	1003530048	457	1003530158	507	1004120009	557
1003530113	408	1003530119	458	1003530179	508	1004120023	558
1003530231	409	1003530130	459	1003530193	509	1004120002	559
1003530148	410	1003530164	460	1003530200	510	1004120027	560
1003530276	411	1003530154	461	1003500036	511	1004120045	561
1003440083	412	1003540040	462	1003540002	512	1004120012	562
1003530094	413	1003530173	463	1003530145	513	1004110010	563
1003440084	414	1003530120	464	1003530185	514	1004120019	564
1003530232	415	1003530237	465	1003530180	515	1004110015	565
1003530149	416	1003530129	466	1003530192	516	1004120017	566
1003530095	417	1003530163	467	1003530201	517	1004110021	567
1003530097	418	1003530174	468	1003540043	518	1004120025	568
1003530169	419	1003530155	469	1003540003	519	1004110013	569
1003530103	420	1003500038	470	1003530181	520	1004110006	570
1003530324	421	1003530123	471	1003530191	521	1004120016	571
1003440085	422	1003530121	472	1003530202	522	1004120005	572
1003530233	423	1003530128	473	1003540004	523	1004120022	573
1003530150	424	1003530197	474	1003530182	524	1004120010	574
1003540038	425	1003530162	475	1003530210	525	1004110014	575
1003530102	426	1003530175	476	1003530212	526	1004110016	576
1003440086	427	1003500037	477	1003530184	527	1004110007	577
1003530115	428	1003530156	478	1003530190	528	1004110020	578
1003530133	429	1003530127	479	1003530203	529	1004120026	579
1003440087	430	1003530161	480	1003540042	530	1004120021	580
1003530096	431	1003530176	481	1003530144	531	1004120020	581
1003530151	432	1003530196	482	1003540045	532	1004110008	582
1003530170	433	1003530157	483	1003540005	533	1004110009	583
1003530101	434	1003540044	484	1003530189	534	1004120003	584
1003530116	435	1003530122	485	1003530204	535	1004110022	585
1003530132	436	1003530198	486	1003530209	536	1004110023	586
1003530167	437	1003530126	487	1003530143	537	1004110023	587
1003530135	438	1003530160	488	1003540007	538	1004120028	588
1003530045	439	1003530177	489	1003530187	539	1004120050	589
1003530235	440	1003530195	490	1003530206	540	1004120013	590
1003530100	441	1003530125	491	1004120001	541	1004120048	591
1003530152	442	1003530159	492	1003530207	542	1004120057	592
1003530117	443	1003530178	493	1004120056	543	1004120014	593
1003530166	444	1003530194	494	1003540009	544	1004120029	594
1003530046	445	1003540001	495	1004110018	545	1004120047	595
1003530171	446	1003530183	496	1003530186	546	1004120042	596
1003530099	447	1003530213	497	1004110011	547	1004120038	597
1003530118	448	1003540006	498	1004110004	548	1004120051	598
1003530131	449	1003530188	499	1004120008	549	1004120015	599
1003530153	450	1003530205	500	1004120024	550	1004120046	600

ATTACHMENT 4 - TAX PARCELS FOR ARMY CREEK & VICINITY GMZ AREA B

<u>Parcel ID</u>	<u>Map ID</u>						
1004120030	601						
1004120052	602						
1004120039	603						
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1004120055	605						
1004120041	606						
1004120040	607						
1004120054	608						
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1004120032	610						
1004120036	611						
1004120033	612						
1004120035	613						
1004120034	614						