



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

August 11, 1999

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.state.in.us/idem

Lori F. Kaplan
Commissioner

L.B. Associates, Inc.
6110 East 375 South
Lafayette, IN 47905

Dear Sir/Madame:

Re: Section 401 Water Quality Certification
IDEM No.: 98-79-MTM-00079-B
Tippecanoe County

We have reviewed the correspondence, dated July 20, 1999, from Ms. Amy Moore, Butler Fairman and Seufert, Inc., requesting an extension of the deadline to complete wetland mitigation for wetland impacts associated with Haggerty Pointe Subdivision.

Based on the site investigation and available information, it is the judgment of this office that an extension of the deadline of the completion of the wetland mitigation will not violate the applicable provisions of 327 IAC 2 and sections 301, 302, 303, 306, and 307 of the Clean Water Act. Therefore, the Indiana Department of Environmental Management (IDEM) hereby modifies Condition No. 3 of the Section 401 Water Quality Certification issued on August 13, 1998 as follows:

3. All wetland mitigation must be completed by September 1, 2000.

This certification is effective 18 days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18 day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the Certification within the scope of the petition for stay is stayed for 15 days, unless or until an Environmental Law Judge further stays the Certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in a writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
ISTA Building
150 West Market Street
Suite 618
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to the OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the Certification, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from the OEA.

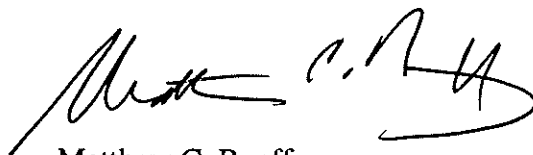
Granting of Section 401 Water Quality Certification does not relieve the applicant from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person.

Failure to execute the project as proposed or to comply with the conditions of the Section 401 Water Quality Certification may result in enforcement action. If an enforcement action is taken, you could be assessed up to \$25,000 per day in civil penalties. You may also be subject to criminal liability if it is determined that provisions of the law or Section 401 Water Quality Certification were willfully, recklessly, or negligently violated.

If you have any questions regarding this decision, contact Mr. Marty Maupin, Project Manager, of my staff at 317/233-2471, or you can reach the Office of Water Management through the IDEM Environmental Helpline (1-800-451-6027).

If you have procedural questions regarding filing a petition for review you may contact the OEA at 317-232-8591.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew C. Rueff", with a stylized flourish at the end.

Matthew C. Rueff
Assistant Commissioner
Office of Water Management

cc: Amy Moore, 
Bulter, Fairman and Siefert, Inc.



Butler Fairman and Seufert Inc.

OFFICE
JUL 23 1 57 PM '99
ENGINEERS

9405 DELEGATES ROW
INDIANAPOLIS, INDIANA 46240-3812
317-573-4615 FAX 317-573-3790
Email: bfs@BFSEngr.com

FOUNDED 1961

JOHN W. BRAND, P.E., President
JOHN L. SPEIDEL, Secretary-Treasurer
STEPHEN F. WEINTRAUT, P.E., Executive Vice President
CLIFFORD E. SEUFERT, P.E., L.S., Consultant

509 WEST 84TH DRIVE, SUITE G
MERRILLVILLE, INDIANA 46410-6249
219-769-2333 FAX 219-769-2377

July 20, 1999

Needs
SR 38
CR 2005.

Mr. Marty Maupin, Project Manager
Indiana Department of Environmental Management
Indiana Government Center, N-1255
Indianapolis, IN 46206-6015

RE: L.B. Associates Site (a.k.a. Haggerty Pointe Subdivision)
IDEM No.: 98-79-MTM-00079-B

Dear Mr. Maupin:

Section 401 Water Quality Certification to allow wetland mitigation as proposed by this office was granted to L.B. Associates, LLC, in an August 13, 1999, letter from Mr. Matthew C. Rueff, IDEM Assistant Commissioner, Office of Water Management. One of the conditions of the Certification was that all wetland mitigation must be completed within one year of the date of the Section 401 Water Quality Certification.

Due to extended coordination efforts with several utilities and adjacent property owners, construction will not be able to begin prior to the August 13, 1999, date required to complete the one-year condition. Therefore, we are requesting that an extension be granted for the Section 401 Water Quality Certification for the above-referenced project.

We appreciate your consideration of this request. If you have any questions, or need additional information prior to issuing a response, you may contact the undersigned at our Indianapolis office.

Very truly yours,

BUTLER, FAIRMAN and SEUFERT, INC.

Amy R. Moore
Amy R. Moore, P.E.

ARM:lm

c: John F. Brand
Jerry A. Brand
John W. Brand

317/392-5102



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

John M. Hamilton
Commissioner

August 13, 1998

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
.www.ai.org/idem

VIA CERTIFIED MAIL Z 376 731 751

L.B. Associates, Inc.
6110 East 375 South
Lafayette, IN 47905

Dear Sir/Madam:

Re: Section 401 Water Quality Certification
IDEM No.: 98-79-MTM-00079-B
Tippecanoe County

In a letter dated May 22, 1998, the Indiana Department of Environmental Management (IDEM), denied Section 401 Water Quality Certification for your proposal to place fill material in 0.2 acres of wetland to facilitate commercial development. We have subsequently reviewed correspondence, dated July 29, 1998, from Aaron Davenport, Butler Fairman and Seifert, Inc., regarding mitigation for the wetland impacts. According to the correspondence, it is proposed to mitigate for the wetland impacts by creating 0.18 acres of wetland within a dry retention basin. Normally, IDEM does not approve of wetland mitigation within retention/detention basins and requires a minimum of a 1:1 replacement for wetland impacts. However, the wetland to be impacted was of low quality and therefore in IDEM's judgement the combination of the lowering of peak flood flows by the retention basin coupled with the additional species diversity of the wetland plantings will adequately mitigate for the wetland impacts..

Based on the site investigation and available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and sections 301, 302, 303, 306, and 307 of the Clean Water Act if the applicant complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification:

1. **The wetland mitigation is executed as described in the correspondence, dated July 29, 1998, from Mr. Aaron Davenport, Butler, Fairman and Seifert, Inc. to Mr. Marty Maupin, Office of Water Management.**

2. **The wetland mitigation area is not to be mowed more than once a year or the vegetation, soils, or hydrology disturbed in any other manner.**
3. **All wetland mitigation must be completed within 1 year of the date of this Section 401 Water Quality Certification.**
4. **IDEM is to be notified when the wetland planting has been completed and documentation is to be supplied showing the wetland seeds were purchased and planted.**
5. Deposition of dredged or excavated materials and all earthwork operations must be carried out in such a manner that soil erosion and sediment runoff to any nearby water body are controlled and minimized. The use of straw bale barriers, silt fencing, or an earthen berm around disturbed areas is required to prevent soil from leaving the construction site. Information and assistance regarding control of construction-related soil erosion are available from the Soil and Water Conservation District offices, collocated with the local field office of the USDA Natural Resources Conservation Service in each county, and the regional field offices of the Indiana Department of Natural Resources' Division of Soil Conservation, whose administrative office is at 402 W. Washington Street, Room W264, Indianapolis, IN 46204. Areas used for deposition of dredged materials must be provided with temporary dikes or bulkheads for separation and retention of solids. Vegetative cover must be established on dredged or excavated material as soon as possible.
6. All construction sites five acres or greater in size are subject to 327 IAC 15-5 (Rule 5) which requires an erosion control plan. Contact Mr. Michael Thompson of the IDEM Permits Section at 317/232-1864 regarding the requirements of this general permit rule.

This certification is effective 18 days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18 day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the permit within the scope of the petition for stay is stayed for 15 days, unless or until an Environmental Law Judge further stays the permit in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in a writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved

or adversely affected by the decision, or a person entitled to review under any law.

2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
ISTA Building
150 West Market Street
Suite 618
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to the OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from the OEA.

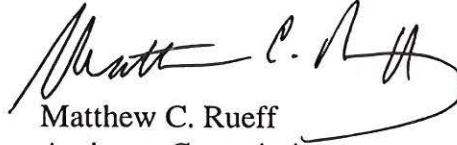
Granting of Section 401 Water Quality Certification does not relieve the applicant from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person.

Failure to execute the project as proposed or to comply with the conditions of the Section 401 Water Quality Certification may result in enforcement action. If an enforcement action is taken, you could be assessed up to \$25,000 per day in civil penalties. You may also be subject to criminal liability if it is determined that provisions of the law or Section 401 Water Quality Certification were willfully, recklessly, or negligently violated.


If you have any questions regarding this decision, contact Mr. Marty Maupin, Project Manager, of my staff at 317/233-2471, or you can reach the Office of Water Management through the IDEM Environmental Helpline (1-800-451-6027).

If you have procedural questions regarding filing a petition for review you may contact the OEA at 317-232-8591.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew C. Rueff". The signature is fluid and cursive, with a large loop at the end.

Matthew C. Rueff
Assistant Commissioner
Office of Water Management

cc: Aaron Davenport 
Butler, Fairman and Siefert, Inc.



Butler Fairman and Seufert Inc. OFFICE OF WATER MANAGEMENT IDEM

ENGINEERS

JUL 30 4 35 PM '98

9405 DELEGATES ROW
INDIANAPOLIS, INDIANA 46240-3812
317-573-4615 FAX 317-573-3790

FOUNDED 1961

FRED C. BURGNER, President
JOHN L. SPEIDEL, Secretary-Treasurer
JOHN W. BRAND, P.E., Executive Vice President
STEPHEN F. WEINTRAUT, P.E., Executive Vice President
CLIFFORD E. SEUFERT, P.E., L.S., Consultant

509 WEST 84TH DRIVE, SUITE G
MERRILLVILLE, INDIANA 46410-6249
219-769-2333 FAX 219-769-2377

July 29, 1998

Mr. Marty Maupin
Indiana Department of Environmental
Management
P.O. Box 6015
Indianapolis, IN 46206-6015

RE: Haggerty Pointe Subdivision, L.B. Associates, LLC
IDEM No.: 98-79-MTM-00079-A

Dear Mr. Maupin:

Per our recent telephone conversation, I am submitting revised information for the above-referenced project. Section 401 Water Quality Certification was denied on May 22, 1998, since our original proposal did not mitigate for the loss of approximately 0.19 acre of jurisdictional wetland. We have revised the drainage plans to include detention of surface run-off to provide replacement wetlands.

At the time of our telephone conversation, it was believed that sufficient run-off would be present to provide approximately 0.285 acre of replacement wetlands or a 1.5 to 1 ratio of wetlands replacement to loss. Further calculations indicate that the actual replacement area will only be 0.154 acre or a 0.81 to 1 ratio. The actual detention area will encompass a 0.3 acre area, but available surface run-off will be insufficient to provide the necessary hydrology to the entire detention area to create a wetland.

Please review the enclosed plan and planting scheme. This submittal is to request 401 Water Quality Certification. If you have any questions, please contact this office.

Thank you for your consideration of this request.

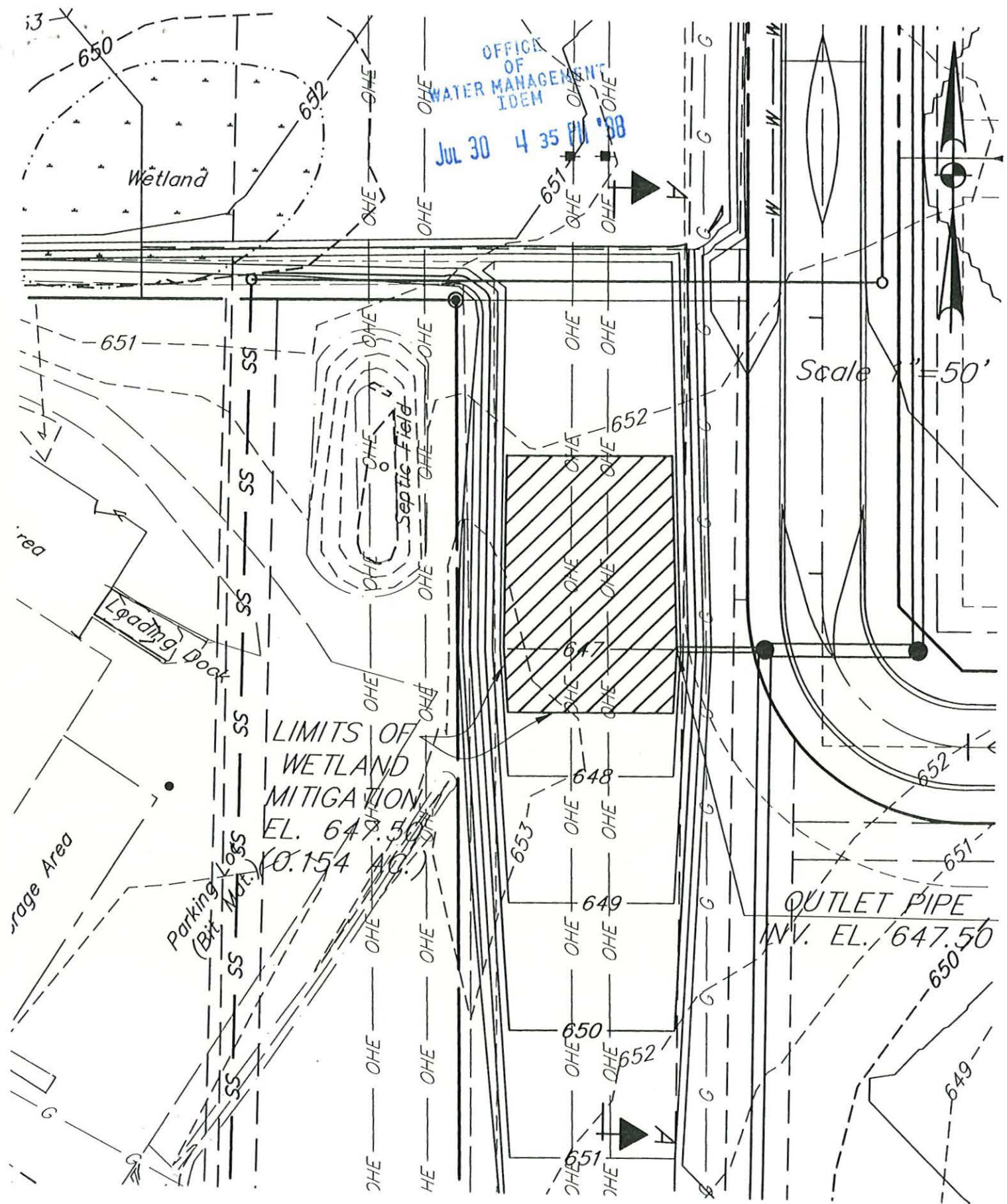
Very truly yours,

BUTLER, FAIRMAN and SEUFERT, INC.

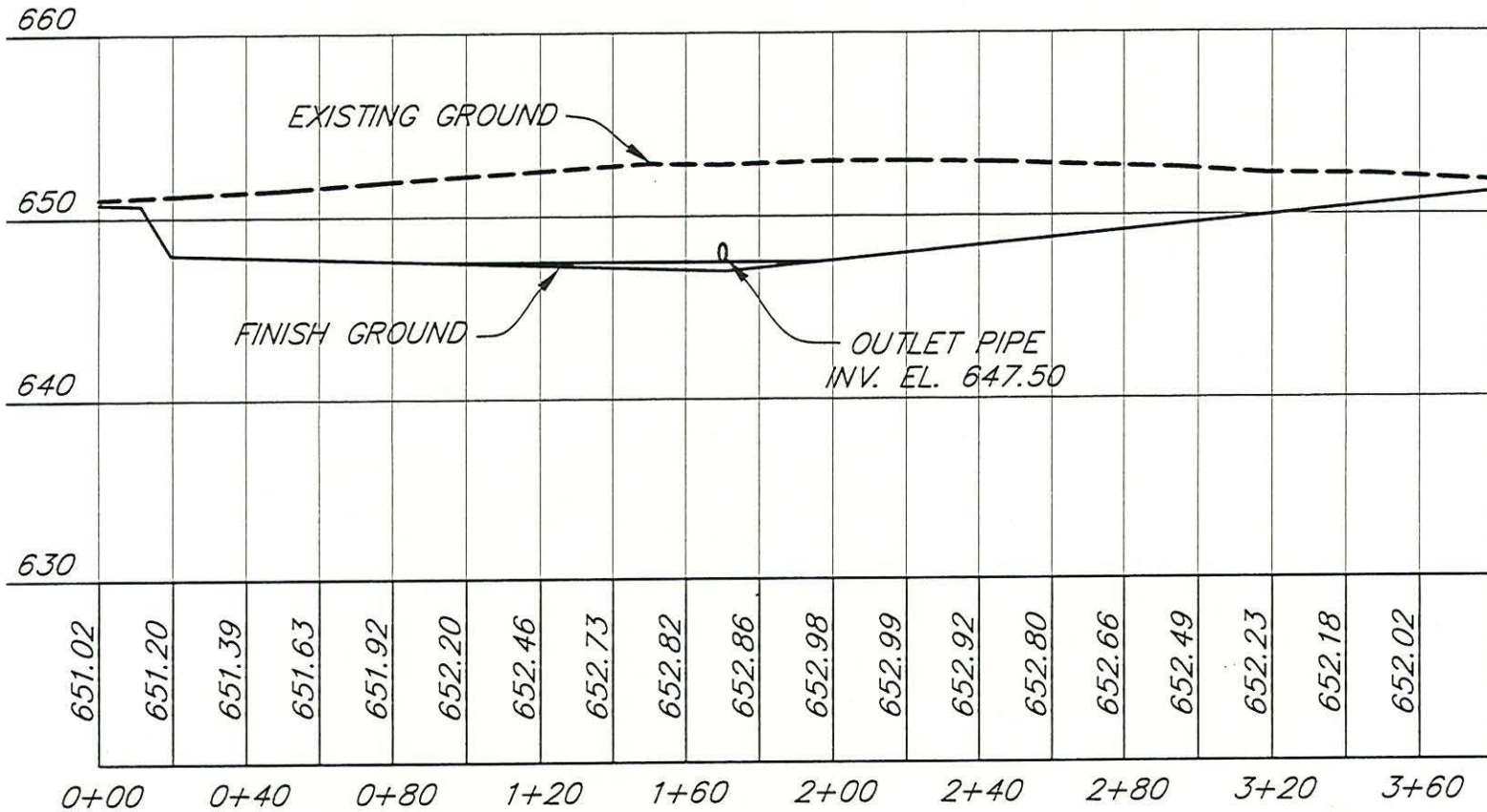

Aaron L. Davenport

ALD:lm

Enclosures



WETLAND MITIGATION SITE
HAGGERTY POINTE
L.B. ASSOCIATES LLC



SECTION "A-A"
 HAGGERTY POINTE
 L.B. ASSOCIATES LLC

JUL 30 4 35 PM '98

OFFICE
 OF
 WATER MANAGEMENT
 IDEM

**WETLAND PLANTING SCHEME
FOR
HAGGERTY POINTE SUBDIVISION
WETLAND REPLACEMENT PROJECT**

OFFICE
OF
WATER MANAGEMENT
IDEM
Jul 30 4 35 PM '98

The following species will be sown in the detention basin at the Haggerty Pointe Subdivision either as a combined seed mixture or as otherwise directed by the providing nursery. The total ounces of seed to be sown for each species will be as directed by the providing nursery.

<u>Botanical Name</u>	<u>Common Name</u>	<u>Wetland Indicator North Central Region 3</u>
<i>Permanent Grasses/Sedges</i>		
Agrostis alba palustris	Creeping Bent Grass	FAC-
Carex vulpinoidea	Fox Sedge	OBL
Echinochloa crusgalli	Barnyard Grass	FACW
Eleocharis obtusa	Spikerush	OBL
Juncus effusus	Common Rush	OBL
Juncus torreyi	Torrey's Rush	FACW
Leersia oryzoides	Rice Cut Grass	OBL
Panicum virgatum	Switch Grass	FAC+
<i>Temporary Grasses</i>		
Agrostis alba	Redtop	NI
Avena sativa	Seed Oats	NI
Lolium multiflorum	Annual Rye	FACU
<i>Forbs:</i>		
Actinomeris alternifolia	Wingstem	NI
Alisma subcordatum	Common Water Plantain	OBL
Asclepias incarnata	Swamp Milkweed	OBL
Bidens sp.	Bidens, various	FACW to OBL
Cephalanthus occidentalis	Common Buttonbush	OBL
Hibiscus sp.	Rosemallow, various	OBL
Mimulus ringens	Monkey Flower	OBL
Penthorum sedoides	Ditch Stonecrop	OBL
Polygonum pensylvanicum	Smartweed	FACW+
Sagittaria latifolia	Broad-leaf Arrowhead	OBL
Scirpus validus	Soft-stem Bulrush	OBL

FACU	- Facultative Upland	(Occurs >67% in upland situations)
FAC	- Facultative	(Occurs 33% to 67% in both upland and wetland situations)
FACW	- Facultative Wetland	(Occurs 67 to 99% in wetland situations)
OBL	- Obligate	(Occurs >99% in wetland situations)

Wetland Planting Instructions:

General:

The location(s) for wetland seeding are shown on the plans. Seed mixture boundaries shall be adhered to, however, unforeseen circumstances may require boundary modifications in the field. Modifications shall be approved by the construction inspector.

Wetland Seed:

Wetland seed is available only during certain times of the year. It is the contractor's responsibility to place nursery orders in a timely manner. This will help to ensure that the seed will arrive at or near optimum planting time. A list of seed species will be listed on the plans. If delays in the sowing of the seed mixture once the seed is delivered, the contractor shall consult the nurseries concerning proper handling and storage. Seed shall contain none of the noxious weed listed in 914.04 nor any that are listed in the Acts of the General Assembly of the State.

Seeding Requirements:

Most nurseries supply seeding instructions along with each order. Seed is normally accomplished by hand. Shallow to deep water seeding can be accomplished by wading.

Once all seeding is completed, an inspection will be conducted. Seeding that is properly installed and in good condition will be accepted. Improper installations will be replaced by the contractor.

Basics of Payment:

Payment for wetland seed will be paid for at the contract unit price per pound. Such payments shall include the cost of seeding and all labor, equipment and materials necessary for a full installation.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live

Frank O'Bannon
Governor

May 22, 1998

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.ai.org/idem

John M. Hamilton
Commissioner

VIA CERTIFIED MAIL P 126 014 273

L.B. Associates, LLC
6110 East 375 South
Lafayette, IN 47905

Dear Sir/Madam:

Re: Denial of Section 401
Water Quality Certification
IDEM No.: 98-79-MTM-00079-A
Tippecanoe County

Office of Water Management staff have reviewed the application for Section 401 Water Quality Certification, dated March 5, 1998, regarding a proposal to place fill material in approximately 0.2 acres of emergent wetland to facilitate commercial development. There is no proposal to mitigate for wetland impacts.

Indiana Code ("IC") 13-18-4-5 states in part:

A person may not:

- (1) throw, run, drain or otherwise dispose into any of the streams or waters of Indiana;
- or
- (2) cause, permit, or suffer to be thrown, run, drained, allowed to seep, or otherwise disposed into any waters; any organic or inorganic matter that causes or contributes to a polluted condition of any waters, as determined by a rule of the board adopted under sections 1 and 3 of this chapter.

It is the judgment of the Office of Water Management that the placement of fill material in these waters will cause or contribute to a polluted condition.

327 Indiana Administrative Code ("IAC") 2-1-2(1) states:

For all waters of the state, existing beneficial uses shall be maintained and protected. No degradation of water quality shall be permitted which would interfere with or become injurious to existing and potential uses.

It is the judgment of the Office of Water Management that the placement of fill material in

in these waters will adversely impact water quality and interfere with or become injurious to existing and potential uses.

In accordance with I.C. 13-18-4-5, Title 327 IAC 2-1-2(1), and Title 327 IAC 2-1-6(1), the Indiana Department of Environmental Management hereby denies Section 401 Water Quality Certification for the activities described in the application for Section 401 Water Quality Certification No. 98-79-MTM-00079-A, dated March 5, 1998.

This denial is effective 18 days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18 day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the permit within the scope of the petition for stay is stayed for 15 days, unless or until an Environmental Law Judge further stays the permit in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in a writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
ISTA Building
150 West Market Street
Suite 618
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to the OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition.

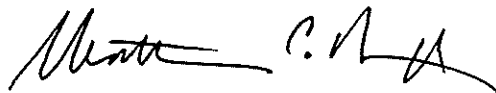
Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will,

and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from the OEA.


If you have any questions, contact Mr. Marty Maupin, Project Manager, of my staff at 317/233-2471, or you may contact the Office of Water Management through the Indiana Department of Environmental Management Helpline (1-800-451-6027).

If you have procedural questions regarding filing a petition for review you may contact the OEA at 317-232-8591.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew C. Rueff". The signature is fluid and cursive, with a large loop at the end.

Matthew C. Rueff
Assistant Commissioner
Office of Water Management

cc: Aaron Davenport 
Butler, Fairman and Seufert, Inc.

PUBLIC NOTICE

Indiana Department of Environmental Management
Office of Water Management
Section 401 Water Quality Certification Program

Date of Publication: March 11, 1998
IDEM Project ID: 98-79-MTM-00079-A
Corps of Engineers ID:

To all interested parties:

This letter shall serve as a formal notice of the receipt of an application for Section 401 Water Quality Certification by the Indiana Department of Environmental Management (IDEM). The purpose of the notice is to inform the public of active applications submitted for water quality certification under Section 401 of the Clean Water Act (33 U.S.C. § 1341) and to solicit comments and information regarding the proposed project. IDEM will evaluate whether the project complies with Indiana's water quality standards as set forth at 327 IAC 2.

-
- Applicant:** L.B. Associates, Inc.
6110 East 375 South Lafayette, IN 47905
 - Location of proposed project:** NE 1/4 of Section 2, Township 22 North, Range 4 West. South of 2 South Road, north of SR 38 and west of 3A East Road.
 - Description of project:** The applicant proposes to place fill material in a 0.19 acre emergent wetland to facilitate construction of Haggerty Pointe Subdivision. It is not proposed to mitigate for the wetland impacts.

Comment period:

Any and all persons or entities who wish to submit comments or information relevant to the aforementioned project may do so by April 2, 1998.

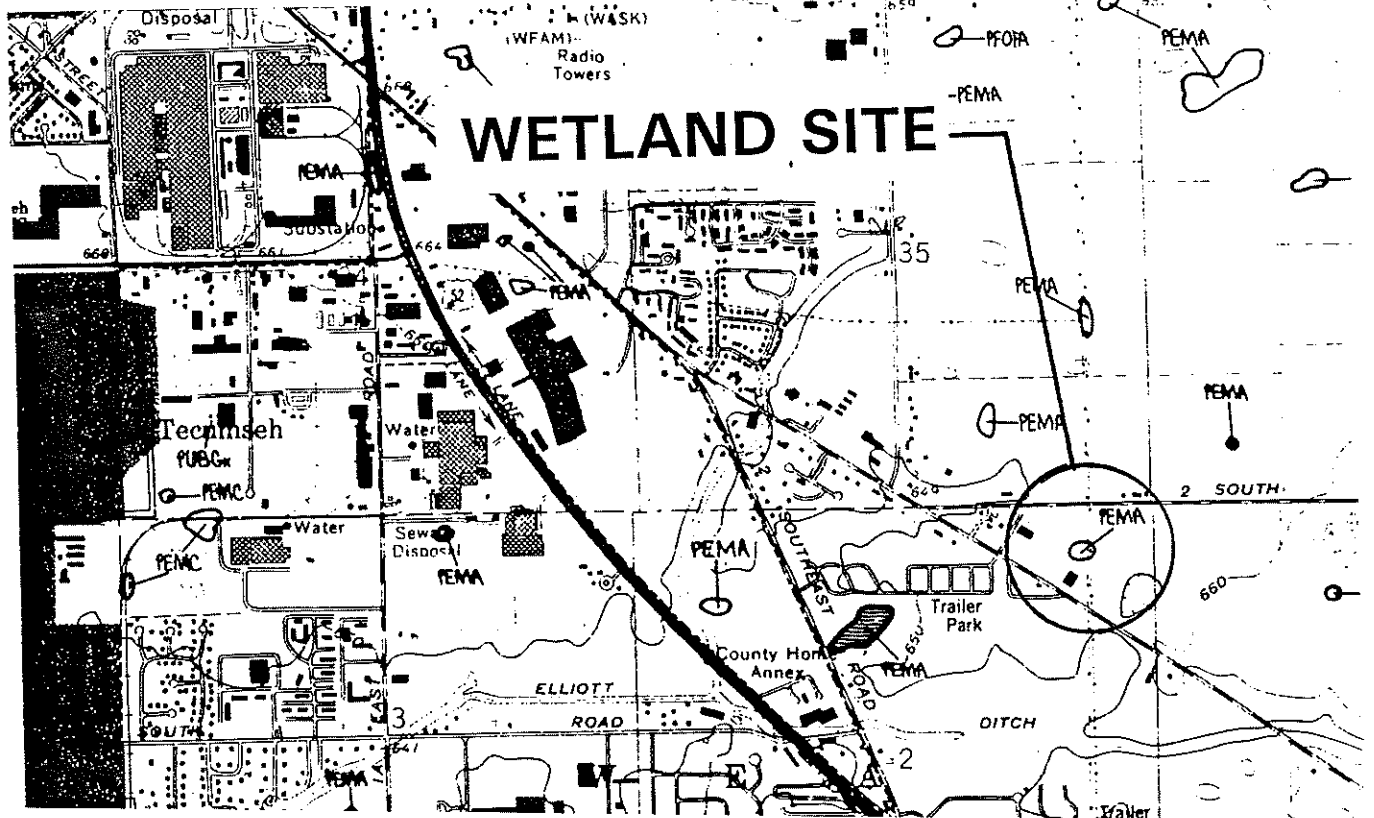
Request for a Public Hearing:

Any person may submit a written request that a public hearing be held to consider issues related to water quality in connection with the project detailed in this notice. The request for a hearing should be submitted within the comment period to be considered timely.

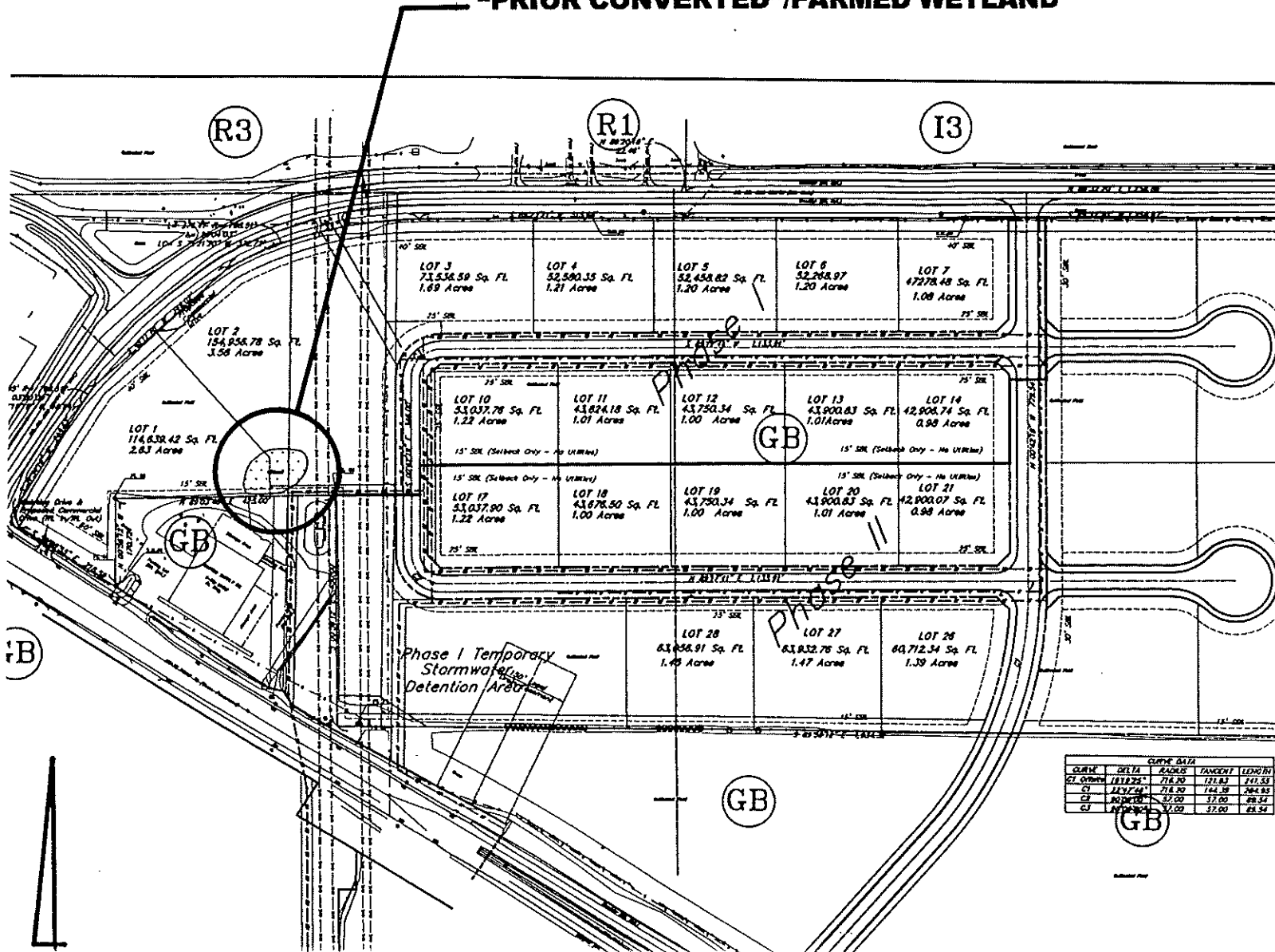
For further information:

Additional information may be obtained from Mr. Marty Maupin, Project Manager, at 317/233-2471. A copy of the plan and elevation drawing showing the general and specific site location may be obtained from the project manager (where reproducible). Please address all correspondence to the project manager and reference the IDEM project identification number listed on this notice. Indicate if you wish to receive a copy of IDEM's final decision. Written comments and inquiries may be mailed to -

Indiana Department of Environmental Management
Section 401 Water Quality Certification Program
Post Office Box 6015
Indianapolis, Indiana 46206-6015



"PRIOR CONVERTED"/FARMED WETLAND



CL	DELTA	RADIUS	TANGENT	LENGTH
C1	123.24	718.20	121.83	241.53
C2	123.24	718.20	121.83	241.53
C3	123.24	718.20	121.83	241.53
C4	123.24	718.20	121.83	241.53

65 42 WQS
MR ERIC ELLINGSON
EARTH SOURCE, INC.
349 AIRPORT NORTH OFFICE PARK
FT. WAYNE, IN 46825

65 42 WQS
L. B. ASSOCIATES, LLC
6110 EAST 375 SOUTH
LAFAYETTE, IN 47905

65 42 WQS
BUTLER FAIRMAN & SEUFERT, INC.
9405 DELEGATES ROW
INDIANAPOLIS, IN 46240

65 42 WQS
TRACTOR SUPPLY COMPANY (TSC)
3990 STATE ROAD 38
LAFAYETTE, IN 47905

65 42 WQS
IN STATE DEPT OF TRANSPORTATION
INDIANA GOVERNMENT CENTER
100 N SENATE AVE
INDIANAPOLIS, IN 46204

65 42 WQS
MR KEVIN STRUNK
WABASH RESOURCE & CONSULTING
6068 RIVERVIEW DRIVE
INDIANAPOLIS, IN 46208-1541

65 42 WQS
MR TIM MALONEY
HOOSIER ENVIRONMENTAL COUNCIL
1002 E. WASHINGTON STREET
INDIANAPOLIS, IN 46202

65 42 WQS
MS JANE DUSTIN
IZAAK WALTON LEAGUE
1802 CHAPMAN ROAD
HUNTERTOWN, IN 46748

65 42 WQS
MS SUSAN THOMAS
SIERRA CLUB, HOOSIER CHAPTER
212 W 10TH STREET, SUITE A-335
INDIANAPOLIS, IN 46202

65 42 WQS
MS CHARLOTTE READ
SAVE THE DUNES COUNCIL
444 BARKER ROAD
MICHIGAN CITY, IN 46360

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059

April 29, 1998

Operations Division
Regulatory Branch (North)
ID No. 199800674-gdn

Mr. Aaron L. Davenport
Butler Fairman and Seufert, Inc.
9405 Delegates Row
Indianapolis, Indiana 46240-3812

Dear Mr. Davenport:

This is in response to your request for authorization, on behalf of L.B. Associates, LLC, to place approximately 300 cubic yards of clean structural fill in 0.19 acre of isolated wetlands to facilitate the development of a residential subdivision. The project, known as the Haggerty Point Subdivision, is located in Section 2, Township 22 North, Range 4 West, southeast of Lafayette, in Tippecanoe County, Indiana. The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 404 of the Clean Water Act.

Your project is considered a discharge of fill material into a headwaters or isolated waters. Since less than 3 acres of "waters of the United States" would be impacted by this discharge and the work site is within an isolated wetland area, the project is authorized under the provisions of Nationwide General Permit 33 CFR 330 (26), Headwaters and Isolated Waters Discharges, as published in the Federal Register, December 13, 1996. Under the provisions of this authorization, you must comply with the enclosed Terms for Nationwide Permit No. 26 and the Nationwide Permit Conditions.

Additionally, you must also obtain individual Water Quality Certification (WQC) from the Indiana Department of Environmental Management (IDEM) prior to commencement of the proposed activity.

You can write to IDEM at:

Indiana Department of Environmental Management
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone: (317) 232-8683.

If IDEM fails to respond to your request for authorization within 60 calendar days, the WQC is considered waived. The responsibility for obtaining the state WQC rests with you.

Once you obtain your certification or waiver, you may proceed with construction without further contact or verification from us. However, a copy of the WQC must be forwarded to us. Please note that you must comply with any WQC conditions.

The enclosed Compliance Certification should be signed and returned when the project is completed. This decision is valid until December 13, 1998. If your project is not completed by that date or if your project is modified, you must contact us for another permit determination. A copy of this letter is being sent to your agent and to the IDEM.

If you have any questions, please contact me by writing to the above address, ATTN: CEORL-OP-FN, or by calling (502) 582-5607. Any correspondence on this matter should refer to our ID No. 199800674-gdn.

Sincerely,

~~ORIGINAL SIGNED~~

Gerry Newell
Project Manager
Regulatory Branch

Enclosures

TERMS FOR NATIONWIDE PERMIT NO. 26

Headwaters and Isolated Waters Discharges. Discharges of dredged or fill material into headwaters and isolated waters provided that the activity meets all of the following criteria:

- a. The discharge does not cause the loss of more than 3 acres of waters of the United States nor cause the loss of waters of the United States for a distance greater than 500 linear feet of the stream bed;
- b. For discharges causing the loss of greater than 1/3 acre of waters of the United States, the permittee notifies the District Engineer in accordance with the "Notification" general condition;
- c. For discharges causing a loss of 1/3 acre or less of waters of the United States the permittee must submit a report within 30 days of completion of the work, containing the information listed below;
- d. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands (Also see 33 CFR 330.1(e)); and
- e. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project. Note, this NWP will expire on December 13, 1998.

For the purposes of this NWP, the acreage of loss of waters of the United States includes the filled area plus waters of the United States that are adversely affected by flooding, excavation or drainage as a result of the project. The 3 acre and 1/3 acre limits of NWP 26 are absolute, and cannot be increased by any mitigation plan offered by the applicant or required by the District Engineer. Whenever any other NWP is used in conjunction with this NWP, the total acreage of impacts to waters of the United States of all NWPs combined, can not exceed 3 acres.

Subdivisions: For any real estate subdivision created or subdivided after October 5, 1984, a notification pursuant to subsection (b) of this NWP is required for any discharge which would cause the aggregate total loss of waters of the United States for the entire subdivision to exceed 1/3 acre. Any discharge in any real estate subdivision which would cause the aggregate total loss of waters of the United States in the subdivision to exceed 3 acres is not authorized by this NWP; unless the District Engineer exempts a particular subdivision or parcel by making a written determination that: (1) the individual and cumulative adverse environmental effects would be minimal and the property owner had, after October 5, 1984, but prior to February 11, 1997, committed substantial resources in reliance on NWP 26 with regard to a subdivision, in circumstances where it would be inequitable to frustrate the property owner's investment-backed expectations, or (2) that the individual and cumulative adverse environmental effects would be minimal, high quality wetlands would not be adversely affected, and there would be an overall benefit to the aquatic environment. Once the exemption is established for a subdivision, subsequent lot development by individual property owners may proceed using NWP 26. For purposes of NWP 26, the term "real estate subdivision" shall be interpreted to include circumstances where a landowner or developer divides a tract of land into smaller parcels for the purpose of selling, conveying, transferring, leasing, or developing said parcels. This would include the entire area of a residential, commercial or other real estate subdivision, including all parcels and parts thereof.

Report: For discharges causing the loss of 1/3 acre or less of waters of the United States the permittee must submit a report within 30 days of completion of the work, containing the following information:

- a. Name, address, and telephone number of the permittee;
- b. Location of the work;
- c. Description of the work; and,
- d. Type and acreage (or square feet) of the loss of waters of the United States (e.g., 1/10 acre of marsh and 50 Square feet of a stream.) (Section 404)



Butler Fairman and Seufert Inc.

ENGINEERS

9405 DELEGATES ROW
INDIANAPOLIS, INDIANA 46240-3812
317-573-4615 FAX 317-573-3790

509 WEST 84TH DRIVE, SUITE G
MERRILLVILLE, INDIANA 46410-6249
219-769-2333 FAX 219-769-2377

FOUNDED 1961

FRED C. BURGNER, President
JOHN L. SPEIDEL, Secretary-Treasurer
JOHN W. BRAND, P.E., Executive Vice President
STEPHEN F. WEINTRAUT, P.E., Executive Vice President
CLIFFORD E. SEUFERT, P.E., L.S., Consultant

March 5, 1998

OFFICE
OF
WATER MANAGEMENT
IDEM
MAR 9 12 25 PM '98

Mr. Marty Maupin
Section 401 WQC Program
Indiana Department of
Environmental Management
P. O. Box 6015
Indianapolis, IN 46206-6015

RE: Haggerty Pointe Subdivision

Dear Mr. Maupin:

Please find enclosed pertinent project information for the above-referenced project. This submittal is for your review for a 401 WATER QUALITY CERTIFICATION. We are submitting similar information to the Louisville District, Corps of Engineers, for a Corps Permit.

Please review the enclosed material as soon as possible. If you have any questions, please contact this office. Thank you for your consideration of this request.

Very truly yours,

BUTLER, FAIRMAN and SEUFERT, INC.


Aaron L. Davenport

ALD:jp

Enclosures

Notes:

Hydrologic Group:

Group B: Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C: Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Flooding:

None: Flooding is not probable at the site.

Kind of Water Table:

Apparent: Thick zone of free water in the soil. It is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soils.

Ponding Duration:

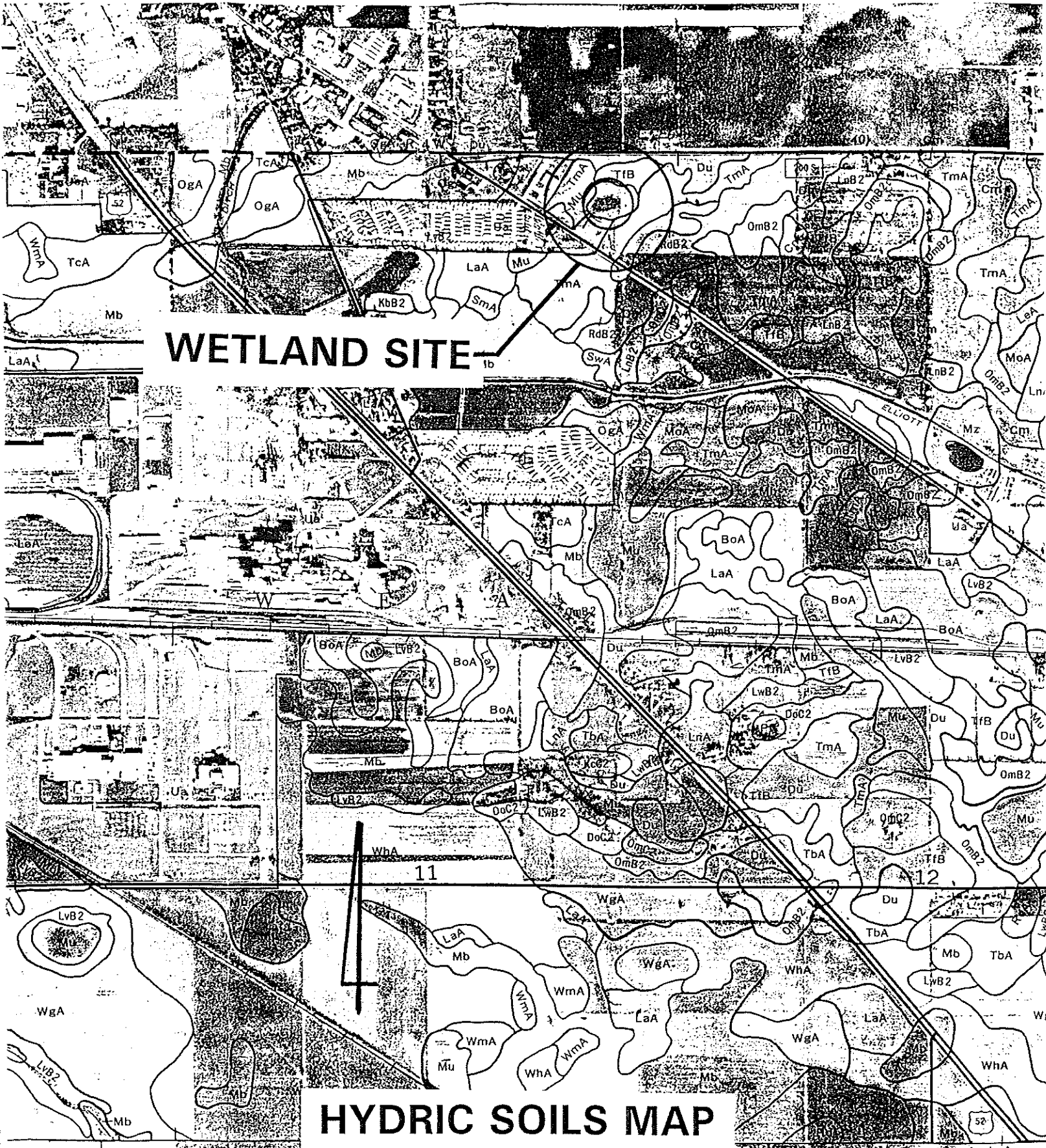
Very brief - less than 2 days

Brief - 2 to 7 days

Long - 7 to 30 days

Very long - more than 30 days

Soil characteristic information supplied by the Tippecanoe County Soil and Water Conservation District





**LOOKING SOUTHWEST IN AGRICULTURAL FIELD
AT "WETLAND"**



**LOOKING NORTHWEST IN AGRICULTURAL FIELD
AT "WETLAND"**

Application for Water Quality Certification

Address all applications or questions to:

Indiana Department of Environmental Management
Section 401 Water Quality Certification Program
100 North Senate Avenue P.O. Box 6015 Indianapolis, Indiana 46206-6015
1-800-451-6027 or 317-232-8683



PLEASE PULL OUT APPLICATION FROM PACKET

Failure to provide the information requested in this application may result in a delay of processing or denial of your application.

For office use only	
Project Manager:	<i>Marty Maupin</i>
Date Received:	<i>3-9-98</i>
IDEM I.D. Number:	<i>98-79-MTM-00079-A</i>
County:	<i>Tippecanoe</i>

1. APPLICANT INFORMATION			
Name of Applicant L.B. Associates, LLC		Mailing Address (Street , P.O. Box or Rural Route) 6110 East 375 South	
City Lafayette	State IN	Zip 47905	
Daytime Telephone Number (765) 296-3437		Fax Number (765) 296-2047	

2. AGENT INFORMATION			
Name of Agent Butler, Fairman and Seufert, Inc.		Mailing Address (Street, P.O. Box or Rural Route) 9405 Delegates Row	
City Indianapolis	State IN	Zip 46240	
Daytime Telephone Number (317) 573-4615		Fax Number (317) 573-3790	

3. PROJECT INFORMATION	
County project is located in Tippecanoe	Nearest Town Lafayette
Project Name or Title (if applicable) Haggerty Pointe Subdivision	Project Street Address
Type of aquatic resource to be impacted Farmed (Prior Converted) Wetland	Name of waterbody N.A.
Linear feet of bank/shoreline impact (if applicable) N.A.	Acreage of wetland proposed to be impacted (if applicable) 0.19 acre
Acreage of wetlands on site 0.19 acre	Cowardin Classification (if known) PEMA (prior converted)

4. Describe proposed project:

The project proposes to develop a 50 acre parcel into a non-residential subdivision. Buildings, access roads, parking lots, landscaping and utilities are proposed to be constructed on each parcel as they are sold.

5. Purpose of the project:

Development site for commercial offices.

6. Date project will begin if permit is issued: Spring, 1998 If work has been started, date it was started: _____
Anticipated completion date: Fall, 1998 (for grading of agricultural area containing the "prior converted/farmed" wetland

7. Describe possible alternatives to the proposed project to avoid or minimize impacts to the aquatic resource. Also describe where and how you plan on putting and containing the dredged/excavated material (if any) to prevent reentry into the aquatic resource.

The parcel containing the wetland site could be considered prior converted since it is farmed each year. A determination of "prior converted" was requested from the NRCS in Tippecanoe County. That NRCS office indicated that their soil maps do not list such designations and that a site specific determination would have to be requested and then performed as manpower became available. To expedite the process so that the project could maintain its planning schedule, it was determined necessary to apply for the permits as a farmed wetland. Since the site is plowed and planted each year and the wettest soil is small (0.19 acre), no significant impacts are anticipated as a result of the proposed project.

The only alternate to the proposed project is the No-Build option. This alternate would eliminate the costs and disturbance to the agricultural field containing the "prior converted/farmed" wetland.

8. Do you expect to dredge any sediments that you know, or have reason to believe, are contaminated with pollutants?

Yes No Please identify the pollutants that may be present in the sediment.

9. Are you aware of any unique resources (e.g., mussels) or threatened or endangered (state or federal) species present in the aquatic resource you are proposing to impact? Yes No Please identify.

10. If fill is to be placed, describe the type, composition and quantity:

An estimate of 300 cyds of fill material would be placed in the "prior converted/farmed" wetland in preparation for proposed building construction.

11. Have you applied for an Army Corps of Engineers Section 404 permit? Yes ___ No If yes, please supply the Corps of Engineers ID Number, the Corps of Engineers District, the project manager, and a copy of any correspondence with the Corps. If no, please contact the Army Corps of Engineers regarding the possible need for a permit application. (See instructions 11.)

Application was made on March 5, 1998 to the Louisville District, Army Corps of Engineers. No information has been received at this time.

12. Have you applied for, received, or been denied any other federal, state, or local permits, variances, licenses, or certifications for this project? Please give the permit name, agency from which it was obtained, permit number, and date of issuance or denial.

Applied for a U.S. Army Corps of Engineers Permit on March 5, 1998. No response received at this time.

13. Please attach the following information:

- A. List of adjacent landowners and persons who may be adversely affected by the project (Attachment A).
- B. A standard size drawing (8.5"x11") of the proposed activity showing an overhead view and cross section that clearly illustrate the scale, north arrow, **wetland delineation** (and data sheets if required by the Corps -- see instructions), erosion control devices, existing and proposed structures and their dimensions, water depths and bottom configurations (if applicable), existing and proposed waterway configurations and elevations, dredge cuts and fills, and ordinary high water mark.
- C. Photographs of the proposed project site; label the photos and identify the location(s) where the photographs were taken on the drawing.
- ___ D. If proposed, a mitigation plan to minimize impacts to water quality including the restoration or creation of wetlands to replace the wetlands that will be lost as a result of the proposed project.
- E. Directions to the project location and a copy of a vicinity map and/or a copy of the portion of the U.S.G.S. 7.5 minute topographic map clearly showing the project location.

I hereby request a Water Quality Certification to authorize the activities described in this application. I certify that I am familiar with the information contained in this application and to the best of my knowledge and belief, such information is true and accurate. I certify that I have the authority to undertake and will undertake the activities as described in this application. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's granting of WQC are not covered by the WQC, and I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of the IDEM to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the WQC requested herein before commencing the project.

Applicant's Signature: _____

Caron Proenprof

Date: 3-5-98

ATTACHMENT A

Please be sure to include this attachment with your application. Failure to include it may result in a delay of processing or denial of your application.

Adjacent landowners and other persons (or entities) who may be affected by your project need to be notified of your project. Please list the names and addresses of landowners adjacent to the property on which your project is located and the names and addresses of other persons (or entities) potentially affected by your project. Attach additional sheets if needed.

Name:	Tractor Supply Company (TSC)
Address:	3990 State Road 38 Lafayette, IN 47905
Name:	State of Indiana Indiana Department of Transportation
Address:	Indiana Government Center Indianapolis, IN 46204
Name:	
Address:	
Name:	
Address:	
Name:	
Address:	
Name:	
Address:	
Name:	
Address:	

Please provide the names and telephone numbers of the two largest newspapers of general circulation in the project area.

Newspaper name:	Journal and Courier
Telephone number:	(219) 423-5511
Newspaper name:	Indianapolis Star and News
Telephone number:	(317) 633-1240

**WETLANDS REPORT
L.B. ASSOCIATES
HAGGERTY POINTE**

PURPOSE:

Evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil and vegetation) must be found in order to make a positive wetland determination. The purpose of this report is to describe information gathered during the wetland delineation, determine if any jurisdictional wetlands exist in the project area and to determine the extent, if any, of the impacts upon adjacent jurisdictional wetlands.

DESCRIPTION OF SITE:

The National Wetland Inventory (NWI) map indicated the presence of a palustrine, emergent, temporarily flooded (PEMA) wetland. An on-site investigation was required to determine whether the site was a jurisdictional wetland. The wetland delineation for this project was conducted on Tuesday, January 6, 1998, using the January, 1987, Corps of Engineers Wetlands Delineation Manual. Additional technical manuals used for the wetland delineation are listed in the Bibliography.

The site is located in a cultivated field, north of and adjacent to a commercial business, which is located on State Road 38, southeast of Lafayette, Indiana. More specifically, the site is located in Section 2, Township 22 North, Range 4 West on the U.S.G.S. Lafayette East, Indiana Quadrangle map all in Wea Township, Tippecanoe County, Indiana. The site is an irregularly shaped area approximately 0.19 acre in size and receives water from a small diameter drainage pipe servicing the commercial business to the south and from surface runoff from the surrounding agricultural field. The following information describes the site in detail.

Jurisdictional Site:

Information supplied by the Tippecanoe County Soil and Water Conservation District indicated that Drummer Soils exist at the site. These soils consist of deep, poorly drained, moderately permeable soils. Expected soil matrix colors were 10YR 3/1 with 2.5YR 4/4 mottles in the B Horizon (14 to 17 inches below the surface).

A total of six test pits were made to obtain the necessary data to delineate the site. The matrix colors for the majority of the site and also for the immediately surrounding agricultural field consisted of 10YR 3/1. Soil matrix colors at the southern edge of the site, adjacent to the commercial business, were 10YR 4/2 with 10YR 6/8 mottles. The sampled soil was indicative of the Drummer soils and met the hydric soil criteria.

The surface of the site was not inundated during the wetland delineation. However, it appears that harvesting of crops is difficult at this site due to the presence of water throughout the majority of the growing season.

Water was observed in 3 of the 6 test pits to a depth of 12 to 14 inches below the surface. At the upper elevations of the site, no water was present. This is typical of Drummer soils which exhibit long periods of a high water table within 6 inches to 2 feet of the surface. However, it is not probable that inundation of these soils would occur. Due to the presence of water at the site, the hydrology criterion is met.

The vegetation in the site's lower elevation was 100% common smartweed (Polygonum hydropiper), which is an obligate plant. The remainder of the site consisted mostly of soy beans intermixed with common smartweed. The entire site is plowed and planted each year. Harvesting of the site appears difficult in certain years. The hydrophytic vegetation criterion is met within the lower elevation of the site as shown on the attached illustration.

All three criteria required for a jurisdictional determination are met. However, this site appears to be a "prior converted" wetland. A determination of "prior converted" was requested from the Natural Resources Conservation Service (NRCS) in Tippecanoe County. That NRCS office indicated that their soil maps do not list such designations and that a site specific determination would have to be requested and then performed as manpower became available. To expedite the process so that the project could maintain its planning schedule, it was determined necessary to apply for the necessary permits as a farmed wetland. No significant impacts are anticipated as a result of the proposed construction.

RECOMMENDATION:

Due to the small size of the existing wetland (0.19 acre) and the fact that the site is plowed and planted each year, this site is considered to be minor and will not be mitigated.

BIBLIOGRAPHY

- Britton, Nathaniel Lord, and Addison Brown, An Illustrated Flora of the Northern United States and Canada, Volumes I, II and III, 2nd Edition, Dover Publications, Inc., New York
- Brockman, Frank C., Trees of North America, Golden Press, New York, 1968.
- Cowardin, Lewis M., Virginia Carter, Francis C. Golet and Edward T. LaRoe, Classification of Wetlands and Deepwater Habitats of the United States, U.S. Department of the Interior, FWS/OBS - 79/31
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- Fassett, Norman C., A Manual of Aquatic Plants, the University of Wisconsin Press, 1980
- Knobel, Edward, Field Guide to the Grasses, Sedges and Rushes of the United States.
- Little, Elbert, L., The Audubon Society Field Guide to North American Trees(Eastern Region), Chanticleer Press, Inc., New York.
- Munsell Soil Color Charts, 1990
- Newcomb, Lawrence, Newcomb's Wildflower Guide, Little, Brown, 1977
- Niering, William A., and Nancy C. Olmstead, Audubon Society Field Guide to North American Wildflowers, Chanticleer Press, Inc., New York.
- Petrides, George A., A Field Guide to Trees and Shrubs, 2nd Edition, Houghton Mifflin Company, 1972
- Porter B. Reed, Jr., National List of Plant Species That Occur in Wetlands: North Central (Region 3), U.S. Fish and Wildlife Service.
- Sargent, Charles Sprague, Manual of the Trees of North America, 2nd Edition, vols. I and II, Dover Publications, Inc., New York, 1965
- U.S. Department of Agriculture, Hydric Soils of the United States, Soil Conservation Service, Washington, DC, 1987
- U.S. Department of Agriculture, Soil Survey of Tippecanoe County, Indiana, 1997

DATA FORM 1

WETLAND DETERMINATION

Applicant Name: L. B. Associates Application Number: _____ Project Name: Haggerty Pointe

State: Indiana County: Tippecanoe Legal Description: _____ Township: 22 North Range: 4 West

Date: January 6, 1998 Plot No.: 1 Section: 2

Vegetation [List the three dominant species in each vegetation layer (5 if only 1 or 2 layers)]. Indicate species with observed morphological or known physiological adaptations with an asterisk.

<u>Species</u>	<u>Indicator Status</u>	<u>Species</u>	<u>Indicator Status</u>
<u>Trees</u>		<u>Herbs</u>	
N.A.		7. Polygonum hydropiper	OBL
1.		8. Solidago giganteum	*FACW
2.		9. Solidago altissima	*FACU
3.		10. Solidago speciosa	*Not listed
		11. Daucus carota	*Not listed
		12. Xanthium chinense	*Not listed
<u>Saplings</u>		<u>Woody Vines</u>	N.A.
4. Populus deltoides	FAC+	13.	
5.		14.	
6.		15.	

% of Species that are OBL, FACW, and/or FAC: 100%*. Other indicators None
 Hydrophytic vegetation: Yes X No ____ . Basis: Meets the hydrophytic vegetation criteria.

Soil

Series and phase: Drummer - Silty clay loam On hydric soils list? Yes X No ____
 Mottled: Yes X* No ____ . Mottle color: 10YR 6/8 ; Matrix color: 10YR 3/1 and 4/2
 Gleyed: Yes ____ No X . Other indicators: None
 Hydric Soils: Yes X No ____ ; Basis: Meets the hydric soils criteria

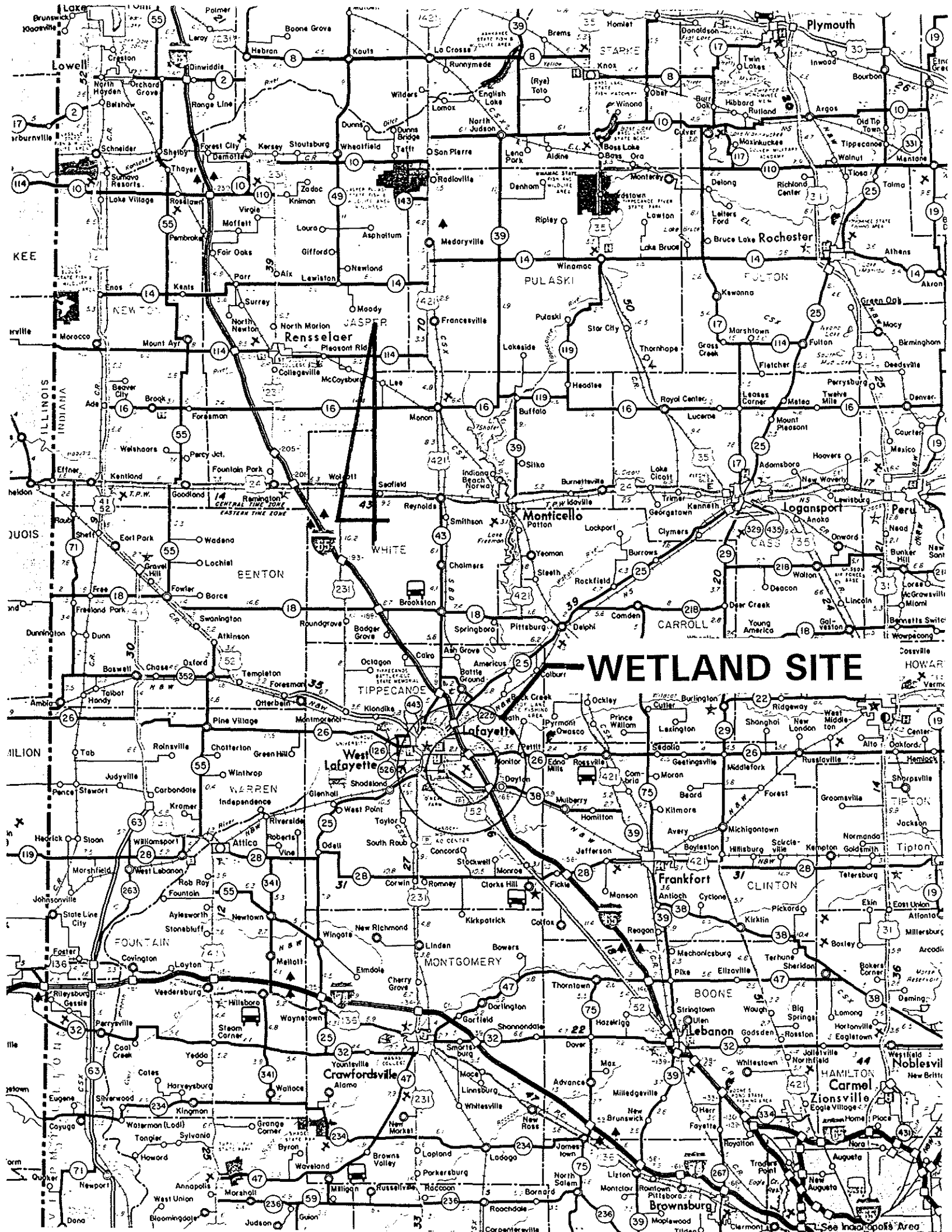
Hydrology

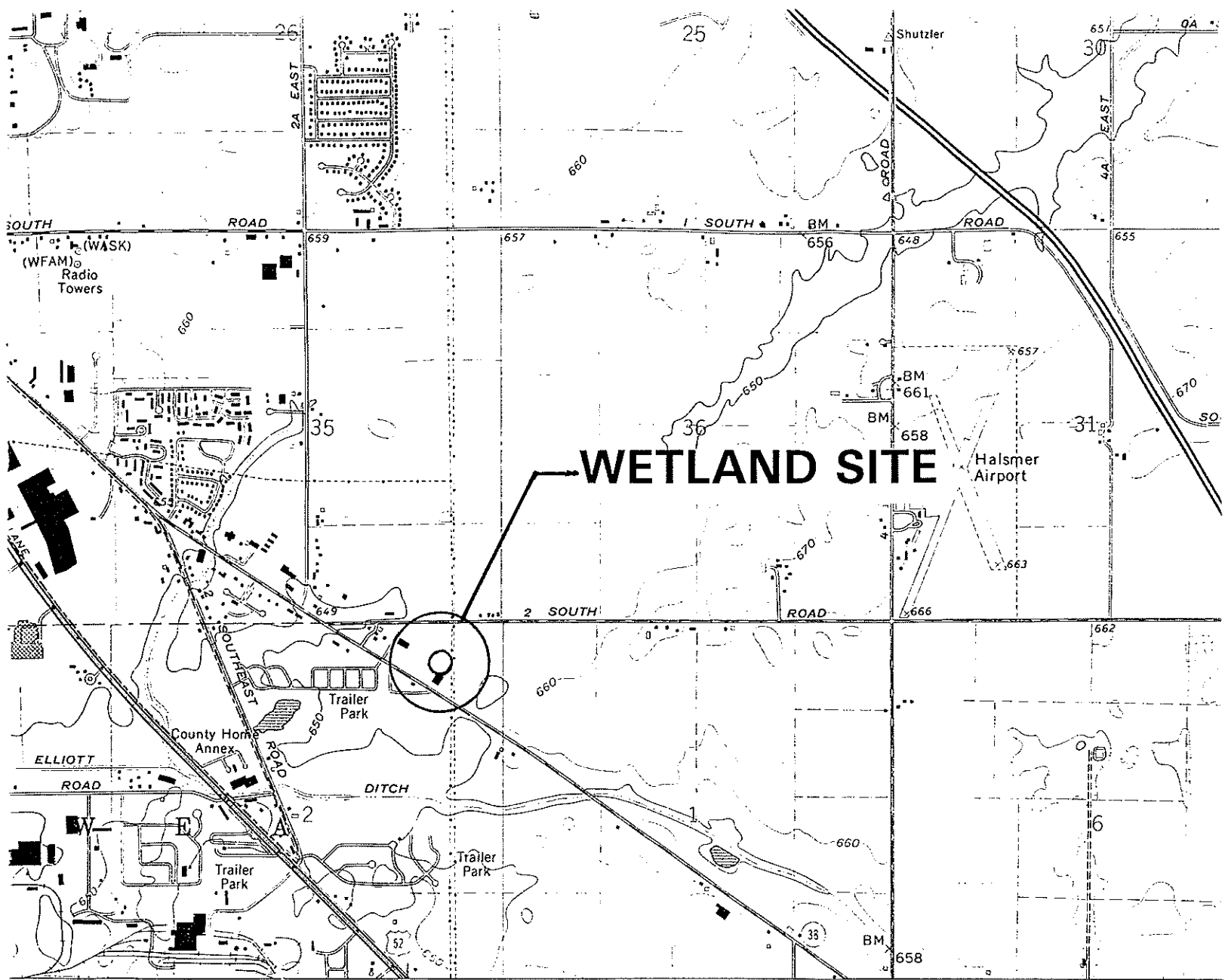
Inundated: Yes ____ No X . Depth of standing water: N.A.
 Saturated soils: Yes X No ____ . Depth to saturated soil: 12-14"
 Other indicators: High water table at this site
 Wetland Hydrology: Yes X No ____ . Basis: Meets the hydrology criteria
 Atypical situation: Yes ____ No X .
Normal Circumstances? Yes X No ____ .
 Wetland Determination: Wetland X** Nonwetland _____

Comments:

**This site is plowed and planted each year and could be considered "prior converted". The bowl shape of the site places the lower elevations within approximately 12" of the water table. It is apparent that the high water table at the lower elevation of the site reduces the harvesting of crops, if crops are available for harvest in a given year.

A determination of "prior converted" was requested from the Tippecanoe County Natural Resources Conservation Service, subsequent to the completion of the delineation. The NRCS office indicated that their soil maps do not list such designations and that a site specific determination would have to be requested and then performed as manpower becomes available.
 Determined by: Aaron Davenport





WETLAND SITE

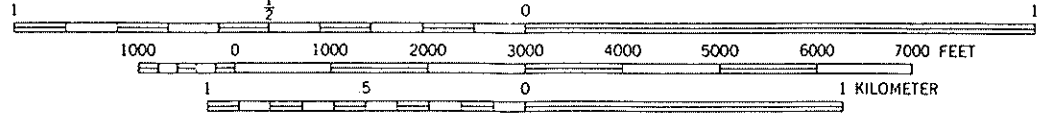
F

irvey

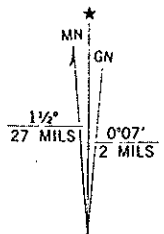
ticks
e
ecked
n

13 14 50 MONROE 3.1 MI. LEBANON 29 MI. 15 R. 4 W. (STOCKWELL) 3664 IV SE R. 3 W. 17

SCALE 1:24 000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



UTM GRID AND 1986 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR RESTON, VIRGINIA 2209 AND INDIANA DEPARTMENT OF NATURAL RESOURCES, INDIANAPOLIS, INDIANA 46204 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST