



INDIANA WELLHEAD PROTECTION PHASE I APPLICATION

State Form 54189 (2-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INSTRUCTIONS: Complete all sections of this application. Use the attached checklist to compile all the information required for Phase I submission per 327 IAC 8-4.1-8).

General Information	Date submitted (<i>month, day, year</i>)
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Please indicate each item you are submitting for review Delineation Contingency Plan
 Phase I Packet

1. System name

2. System PWSID number

3. Population served

4. Name with personal (Mr./Ms.) and professional title of Wellhead Protection contact person

Mailing address (*number, street, city, state, and ZIP code*)

E-mail address, telephone, and FAX numbers (*with area codes*)

5. Delineation contact person

Affiliation or company name

Mailing address (*number, street, city, state, and ZIP code*)

E-mail address, telephone, and Fax numbers (*with area codes*)

6. Include delineation contact person in IDEM communications? (*indicate yes or no*)

7. Number of well fields

8. Location of wells (*please use UTM if available; attach additional sheets as necessary*)

Well	Wellfield	UTM-N	UTM-E

Please identify the source of your location information.



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State Form 54189 (2-09)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

SIGNATURE BLOCK

I certify the information in this wellhead protection application is complete and accurate to the best of my knowledge.

Signature of responsible official or designated agent

Date (month, day, year)

IDEM USE ONLY

Date application received (month, day, year)

INDIANA WELLHEAD PROTECTION PHASE I APPLICATION

INSTRUCTIONS: Indicate in the "Applicant Use" column of the checklist the page number or other appropriate reference where the specified information is located.

Delineation Information 327 IAC 8-4.1-7 (per 327 IAC 8-4.1-6, all maps except topographic maps, must be drawn to a scale between 1"=400' and 1"=1,000')	Applicant Use	IDEM Use Only		
	Location in Application Packet	Information Present? (Yes, no, N/A)	Reviewer	Item #
(a) Requires a report with a narrative description of the regional hydrogeologic setting, the conceptual model, and modeling efforts which includes				
(1) Analysis of Hydrogeologic Setting and the Conceptual Model				1
(A) A map of the area of interest				2
(B) Review of published hydrogeologic and geologic interpretations of the area of interest				3
(C) Geologic cross sections showing				
(i) hydrostratigraphic units				4
(ii) water levels				5
(iii) relationship of surface water bodies to the hydrostratigraphic units				6
(iv) pumping wells with screened intervals				7

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(D) Well logs and records used in cross section development				8
(E) Map(s) of the proposed WHPA illustrating				
(i) location of CPWSS wells				9
(ii) location of high capacity wells registered as significant water withdrawal facilities				10
(iii) surface water features				11
(iv) thickness and extent of hydrostratigraphic units				12
(v) regional ground water levels				13
(vi) bedrock topography				14
(F) Summary of raw data used in the development of the conceptual model				15
(G) Discussion of hydrogeologic parameters				16
Delineation Information 327 IAC 8-4.1-7 (continued)	Applicant Use	IDEM Use Only		
	Location in Application Packet	Information Present? (Yes, no, N/A)	Reviewer	Item #
(H) Discussion of the ground water flow system including				
(i) distribution of recharge				17
(ii) current CPWSS pumping rates and planned changes in pumping rates				18
(iii) pumping rates of neighboring high-capacity wells				19
(2) Presentation and discussion of modeling effort				
(A) Rationale for the delineation method selected				20
(B) Tabulated summary of model input parameters showing the range over which parameters were varied				21
(C) Example input file				22
(D) Map(s) illustrating				
(i) the domain of the modeled area within the area of interest				23
(ii) location of any boundary conditions used				24
(iii) calibration target locations if used				25

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(iv) modeled potentiometric surfaces				26
(v) resulting WHPA boundaries				27
(E) Discussion of				
(i) assumptions used in modeling effort				28
(ii) changes made to initial conditions				29
(iii) calibration analysis if used				30
(iv) water budget of the model if available				31
(v) effects of uncertainty in input parameters and boundary conditions on modeled WHPA boundaries				32
Professional Certification 327 IAC 8-4.1-8 (2)				
Verification that delineation was performed by or under the supervision of a certified professional geologist (other if applicable)				33
WHPA Delineation using the Fixed Radius Method 327 IAC 8-4.1-7(b)	Applicant Use	IDEM Use Only		
	Location in Application Packet	Information Present? (Yes, no, N/A)	Reviewer	Item #
(a) A copy of IDEM approval letter for use of fixed radius method				34
(1) Map(s) illustrating				
(A) WHPA boundary				35
(B) CPWSS pumping well locations				36
(C) location of wells in the WHPA registered as significant water withdrawal facilities				37
(2) A topographic map of the area				38
(3) Well logs for the CPWSS pumping well(s)				39
Local planning team (LPT) representation 327 IAC 8-4.1-4				
(a) Verification that the CPWSS coordinated, formed or participated in the LPT (e.g., copies of meeting minutes, agendas, sign-in sheets)				40
(b) Names and affiliations of all LPT representatives				41
Identification of affected party represented on LPT				42
(c) Copies of public notice indicating the formation of the LPT				43

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Inventory of Potential Sources of Contamination 327 IAC 8-4.1-8 (3)				
(A) A narrative description of land use within the WHPA				44
(B) Map(s) with potential sources of contamination plotted, showing their locations relative to the WHPA				45
(C) A table containing information describing the potential sources of contamination which includes				46
(i) facility identification number(s)				47
(ii) facility name(s) and location(s)				48
(iii) site description(s)				49
(iv) any environmental permits issued for the site(s) including permit number and issuing agency				50
(v) types of contamination at the site				51
(vi) operating status of site				52
Management Plan Requirements 327 IAC 8-4.1-8 (4)				
	Applicant Use	IDEM Use Only		
	Location in Application Packet	Information Present? (Yes, no, N/A)	Reviewer	Item #
(A) Must include a plan to manage the sanitary setback area which contains				
(i) a description of the measures to manage the areas consistent with the requirements of 327 IAC 8-3				53
(ii) a description of measures to prohibit the storage and mixing of chemicals, other than those used for drinking water treatment or pesticides regulated by the Pesticide Review Board				54
(iii) a description of the provisions to secure the wellhead to prevent unauthorized access				55
(iv) guidelines that employ best management practices for transportation routes within the sanitary setback area				56
(B) A separate plan to manage the WHPA which contains				
(i) a description of the management or monitoring measures for all potential sources of contamination. Measures must consider				57
· location(s) of potential sources of contamination				58
· type(s) of potential sources of contamination				59
· hydrogeologic characteristics of the WHPA				60
(ii) a verification that CPWSS production wells comply with state construction standards and permit requirements				61

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(iii)	a copy of the Standardized Monitoring Framework received by IDEM for the contaminants associated with identified potential sources of contamination				62
(iv)	methods or procedures for maintaining and updating records concerning changes in potential sources of contamination within the WHPA				63
(v)	a description of methods used to identify abandoned wells not in compliance with IC 25-39-4-6 and 310 IAC 16-10				64
(vi)	a description of how use, application, storage, mixing, loading, transportation, and disposal of pesticides complies with IC 15-3-3.5 and 3.6				65
(vii)	a description of how property owners, mineral owners and leaseholders of record are notified that they are located in a WHPA				66
Management Plan Requirements 327 IAC 8-4.1-8 (4) (continued)		Applicant Use	IDEM Use Only		
		Location in Application Packet	Information Present? (Yes, no, N/A)	Reviewer	Item #
(viii)	a description of how owners and operators of identified potential sources of contamination are provided access to a copy of the WHPP				67
(ix)	a description of the public outreach program to educate the public and owners or operators of potential sources of contamination about the consequences of ground water contamination and methods available to avoid contamination				68
(x)	the locations of wellhead protection signs along major thoroughfares along the perimeter of the WHPA				69
(xi)	a description of any other management measures required to comply with this rule				70
Contingency Plan Requirements 327 IAC 8-4.1-8 (5)					
(A)	A copy of the local responder training plan				71
(B)	A description of the procedures to be used in emergency response to leaks, spills or illegal discharges				72
(C)	A copy of the list of information provided to local responders, which must include				
(i)	location of the WHPA boundaries				73
(ii)	names of CPWSS operators to contact in case of emergency				74
(iii)	twenty-four (24) hour telephone numbers for				

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(AA)	IDEM Office of Environmental Response			75
(BB)	state and local city/county police and fire/hazmat team			76
(CC)	city or county disaster services agency			77
(DD)	water supply owner, superintendent and operator			78
(EE)	city or county hospital			79
(D)	An identification and description of potential alternate sources of water			80
(E)	A description of the procedures and methods to be used in notifying critical water users of an emergency			81
(F)	A copy of the procedures to follow in an emergency and the locations and description of the availability of the complete contingency plan			82

Please submit this application along with the Phase I Wellhead Protection Plan to:

*Indiana Department of Environmental Management
Office of Water Quality – Ground Water Section
100 N. Senate Avenue, Rm. 1255
Mail Code 66-33
Indianapolis, IN 46204-2251*

*For more information: (317) 232-8728 or (800) 451-6027 (toll free in Indiana)
Web Access: www.in.gov/idem/4289.htm*