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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Oil and Gas Management



Chapter 78a Training Erosion Control, Site Restoration and Borrow Pits

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Tom Wolf, Governor

Patrick McDonnell, Acting Secretary



Chapter 78a Training

Erosion and Sediment Control - § 78a.53

Site Restoration - § 78a.65

Borrow Pits - § 78a.67

Erosion and Sediment Control

§ 78a.53 Erosion and Sediment Control and Stormwater Management

- Any person proposing or conducting earth disturbance activities associated with oil and gas operations shall comply with Chapter 102
- Manage stormwater throughout all phases of a project
- Oil and Gas Act of 2012 vs. 78a.53

Erosion and Sediment Control

1972

- PA DER Ch.102 E&S requirements for all earth disturbance activities

1989

- US EPA E&S Permit requirements for all earth disturbance activities over 5 acres

1992

- PA DER E&S Permit requirements for all earth disturbance activities over 5 acres implemented at state level

2002

- Phase II NPDES PA DEP E&S Permit requirements for earth disturbance activities over 1 acre (EPA delayed O&G until 2006)

2005

- Federal Rule - Energy Policy Act exemption from NPDES requirements for Oil and Gas Activities unless they violate water quality standards

2010

- PA amended Ch. 102 E&S requirements to codify PCSM requirements for all projects requiring an ESCGP or NPDES.



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Erosion and Sediment Control

§ 78a.1 Definitions

- Limit of Disturbance
- PCSM
- PCSM Plan
- Stormwater

Erosion and Sediment Control

Manuals and Guidance

- Oil and Gas Operators Manual
<http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-8295>
- Erosion and Sediment Pollution Control Program Manual
<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-88925/363-2134-008.pdf>
- Stormwater BMP Manual
<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-68851/363-0300-002.pdf>
- Riparian Forest Buffer Guidance
<http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-82308/394-5600-001.pdf>
- Erosion and Sediment Control Plan for Oil and Gas Operators
<http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-12787>

Site Restoration

§ 78a.65 Overview

- Section 3216 of Oil and Gas Act
- Ch. 102
- Site Restoration/PCSM
- Forms

Site Restoration

§ 78a.65 OUTLINE

- (a) Restoration
- (b) Restoration plan
- (c) Extension of drilling or production period
- (d) Areas not restored
- (e) Post drilling restoration reports
- (f) Post plugging restoration reports
- (g) Written consent of the landowner

Site Restoration

§ 78a.65 (b) RESTORATION PLAN OUTLINE

- (1) Areas not needed to safely operate
- (2) Post drilling site configuration
- (3) Minimization of impervious areas
- (4) Removal of drilling supplies
- (5) Meadow in good condition
- (6) PCSM BMPs – Long term operation
- (7) Permanent stabilization
- (8) 102.5 requirements (ESCGP-2)

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(1) Restoration of areas not needed to safely operate the well site to **approximate original conditions**.

- Approximate preconstruction contours
- Closely resembles general surface configuration of the land prior to construction activities
- Blends into drainage pattern of surrounding terrain
- Supports prior uses to the extent practicable





NATURAL

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(2) The proposed site configuration after post-drilling restoration including the areas of the well site being restored.

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(3) The minimization of impervious areas, which include but are not limited to

- Areas where soil has been compacted
- Areas where soil has been treated with amendments to firm or harden the soil
- Areas underlain with an impermeable liner

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(4) The removal of all drilling supplies and equipment not needed for production, including primary and secondary containment

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(5) The manner in which the restoration of the disturbed areas will achieve meadow in good condition or better or otherwise incorporate ABACT or Nondischarge Alternative PCSM BMPs

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(6) PCSM BMPs remaining in place and proof of compliance with § 102.8(l) and (m), or a licensed professional certification of complete site restoration to approximate original contours and return to preconstruction stormwater runoff rate, volume and quality in accordance with § 102.8(g).

The owner or operator shall remain responsible for compliance with the terms of the restoration plan including **long-term operation and maintenance of all PCSM BMPs** on the project site and is responsible for any violations occurring on the project site, prior to written approval of the final restoration report.

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(7) Permanent stabilization of restored areas:

(i) In accordance with 102.22 OR

(ii) Implementation of PCSM BMPs as required by 102.8, including 102.8 (a) – (m).

Site Restoration

§ 78a.65 (b) RESTORATION PLAN

§ 102.22. Site stabilization

(a) Permanent stabilization. Upon final completion of an earth disturbance activity or any stage or phase of an activity, the site shall immediately have topsoil restored, replaced, or amended, seeded, mulched or otherwise permanently stabilized and protected from accelerated erosion and sedimentation.





Site Restoration

§ 78a.65 (b) RESTORATION PLAN

(7) Permanent Stabilization of restored areas:
(continued)

(i) In accordance with 102.22 OR

**(ii) Implementation of PCSM BMPs as required
by 102.8, including 102.8 (a) – (m)**

Site Restoration

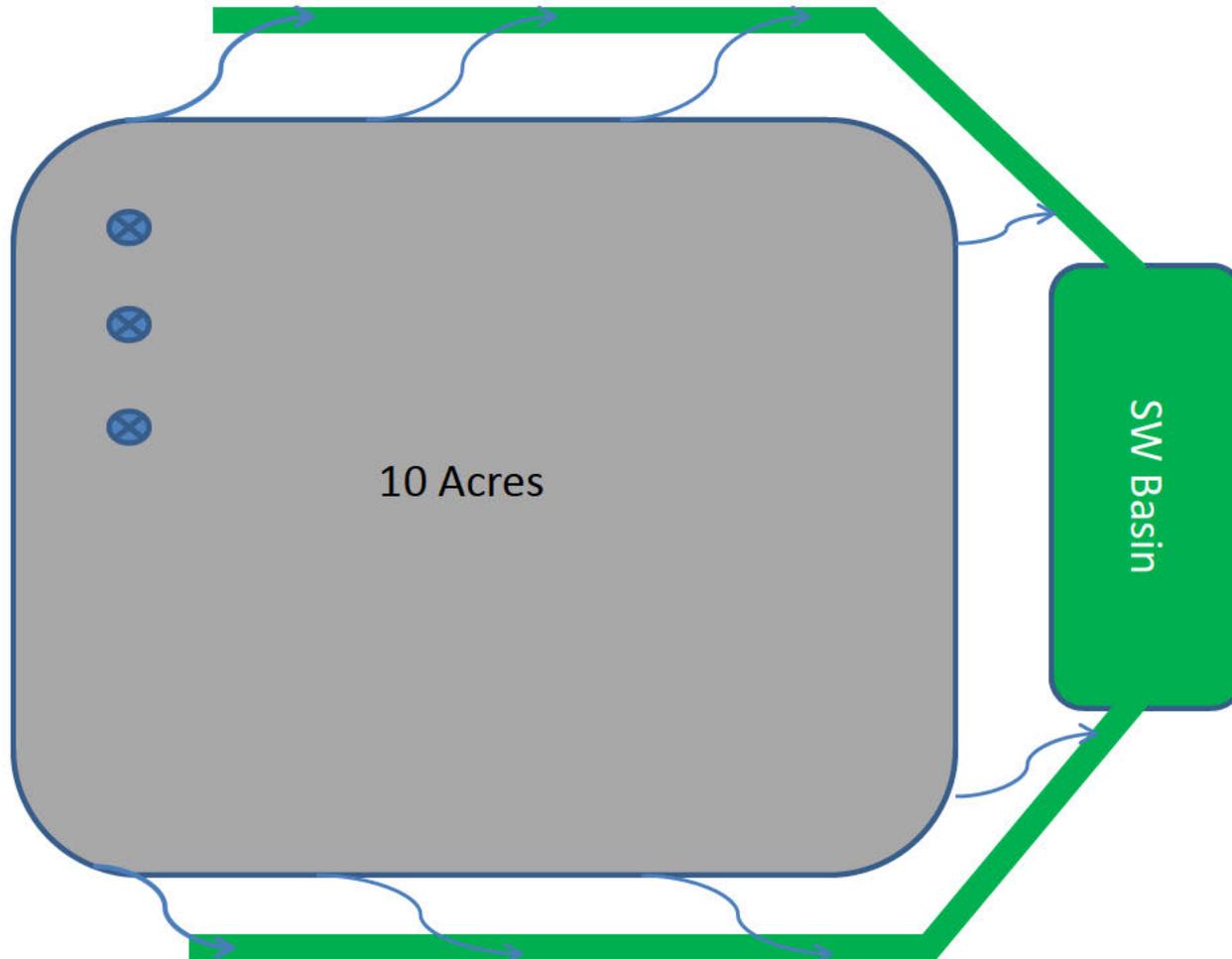
§ 78a.65 (b) RESTORATION PLAN

(8) If Operator is required to have a permit under 102.5:

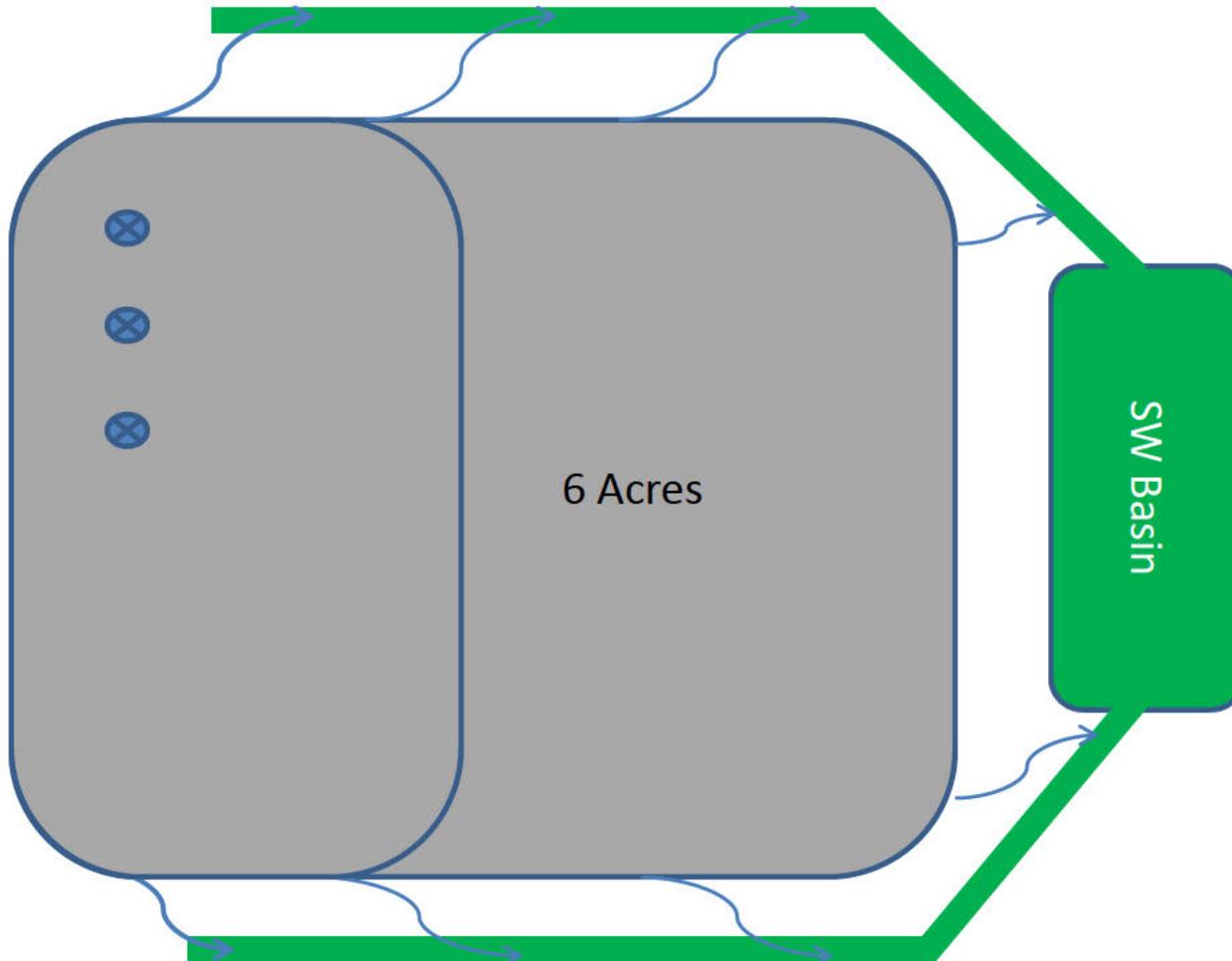
A Restoration Plan meeting the requirements of 78.65(b) (1)-(7) demonstrates compliance with 102.8(n)



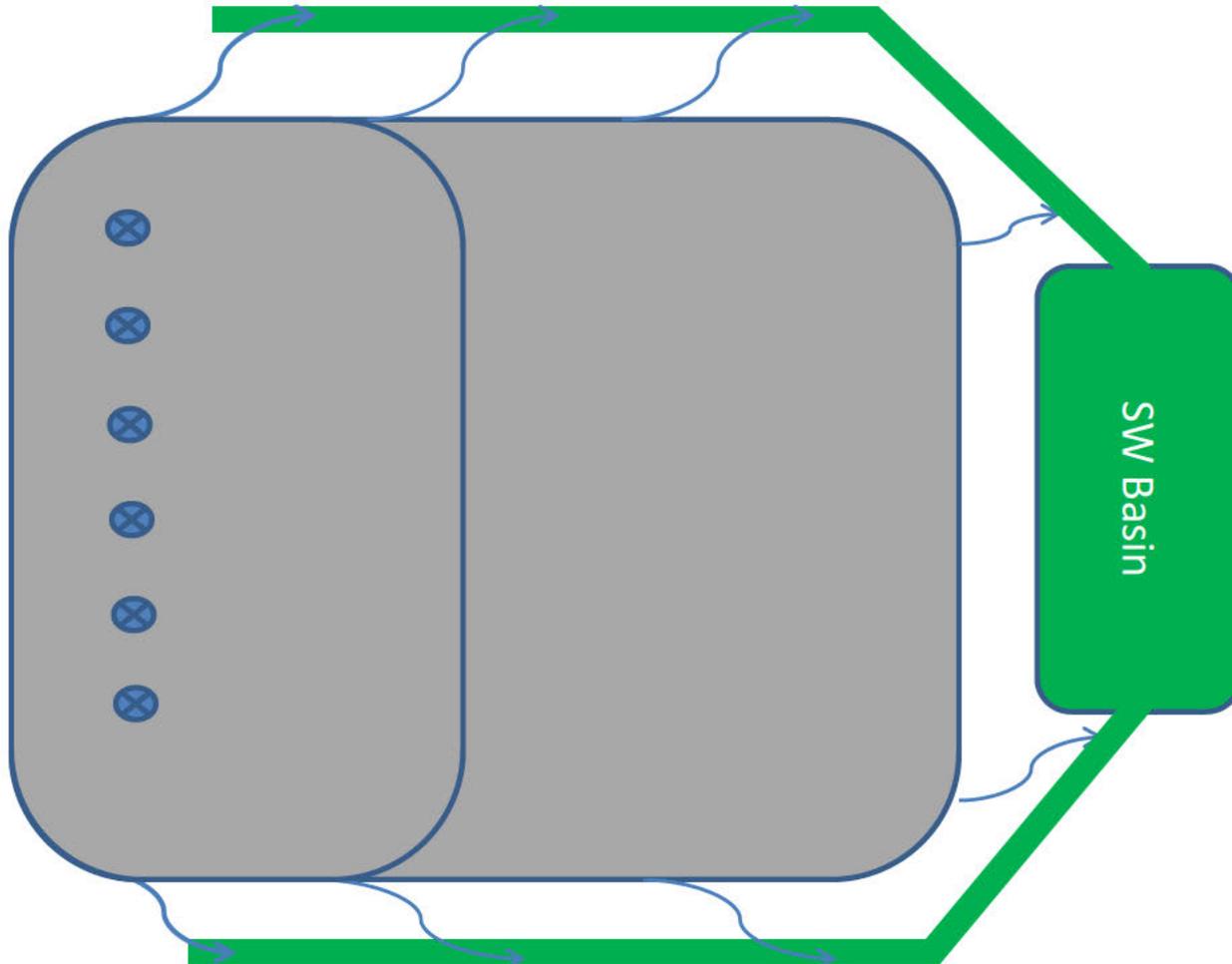
Site Restoration



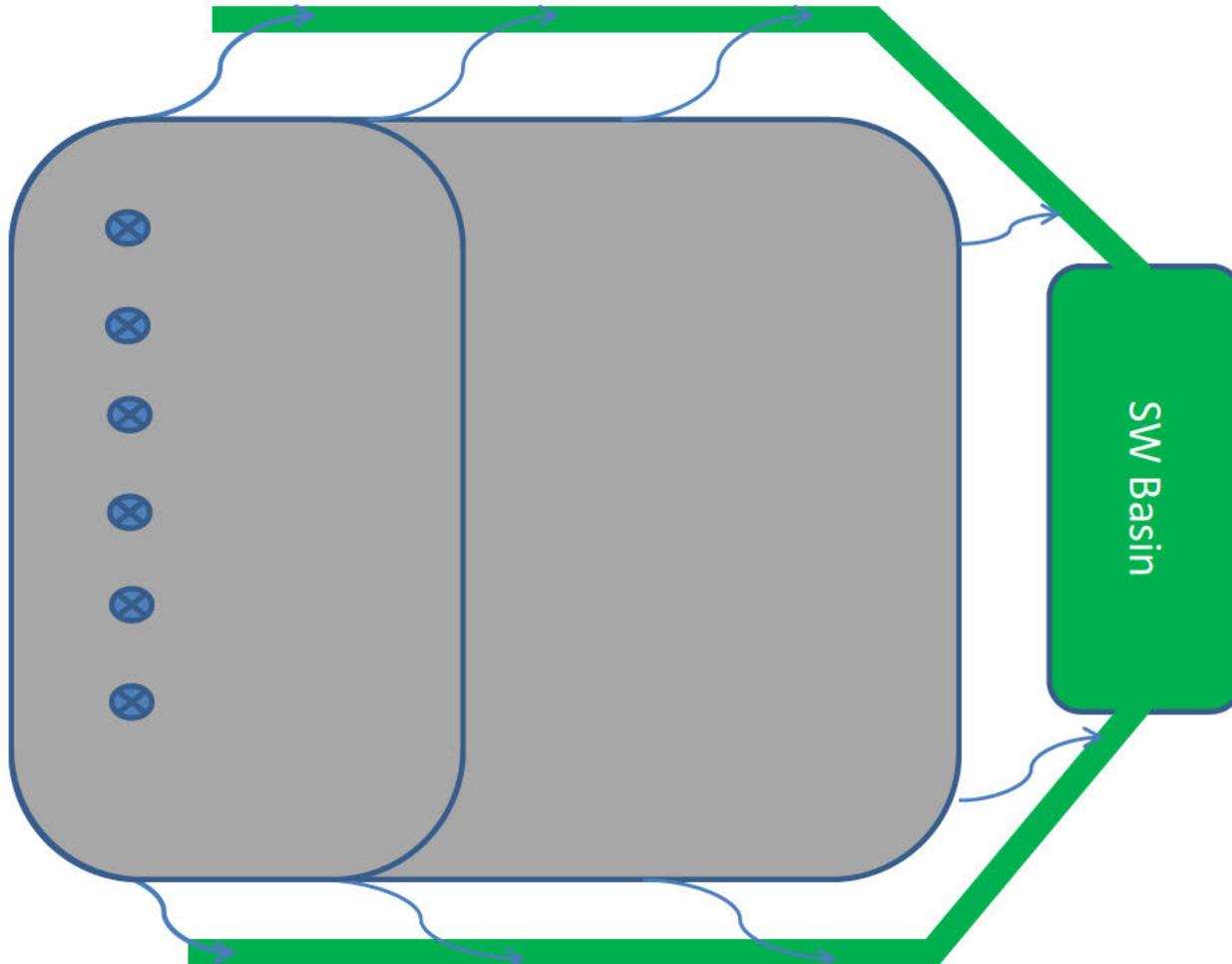
Site Restoration



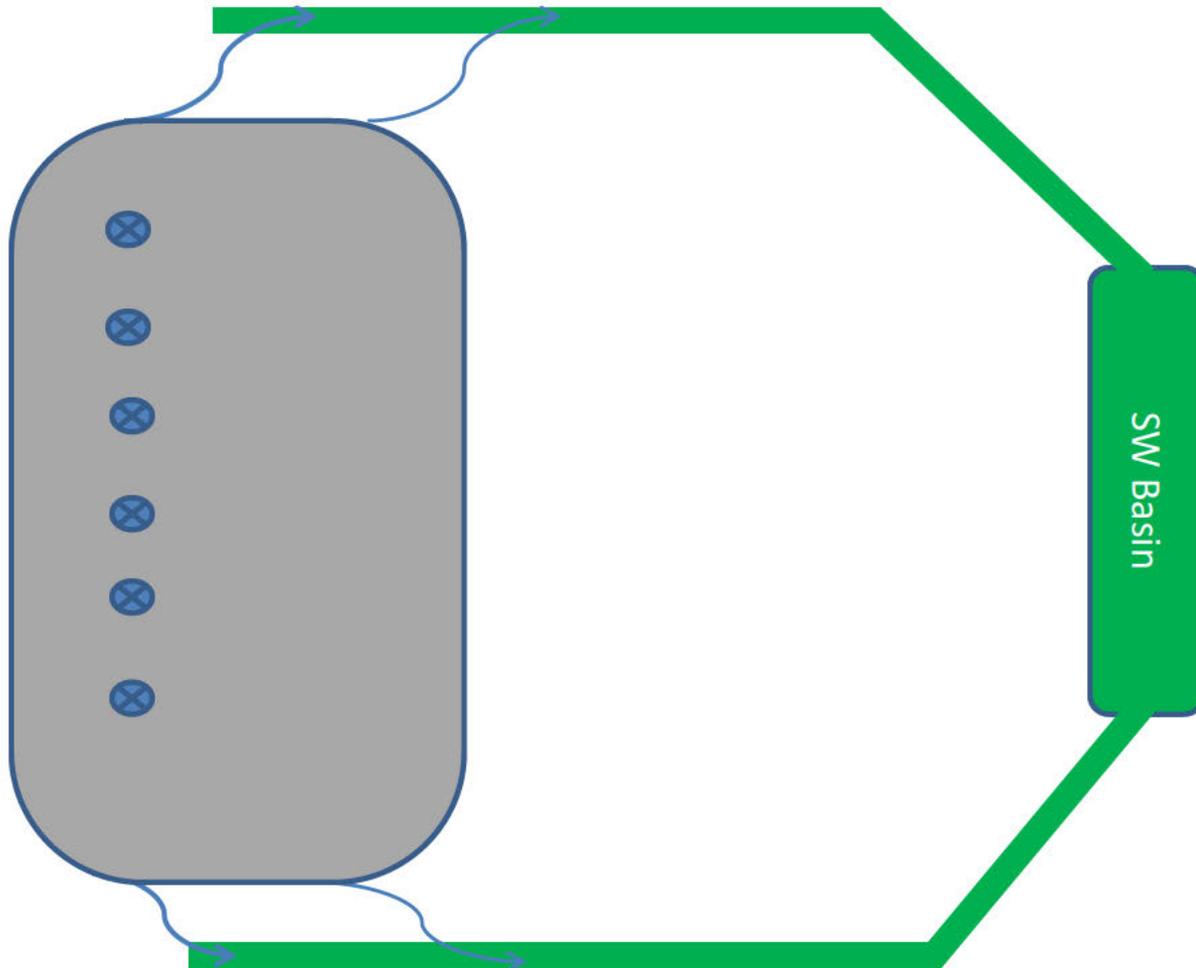
Site Restoration



Site Restoration



Site Restoration



Site Restoration

§ 78a.65 FORMS

Landowner Consent to Store Drilling Supplies and Equipment - § 78a.65(a)(iii)

Well Site Restoration Extension Request – § 78a.65 (c)(1)

Post Drilling Restoration Report - § 78a.65 (e)

Post Plugging Well Site Restoration Report – § 78a.65(f)

Landowner Consent Form (for well site restoration) –
§ 78a.65 (g)

Site Restoration

§ 78a.65 (a)(iii) LANDOWNER CONSENT FOR STORING DRILLING SUPPLIES AND EQUIPMENT

- Well Operator Information
- Landowner Information
- Landowner Signature
- Notarization required





Site Restoration

§ 78a.65 (c)(1) WELL SITE RESTORATION EXTENSION REQUEST FORM

- Well Sites must be restored within 9 months of drilling or plugging being completed
- Limit of 24 months
- File before Notice of Termination

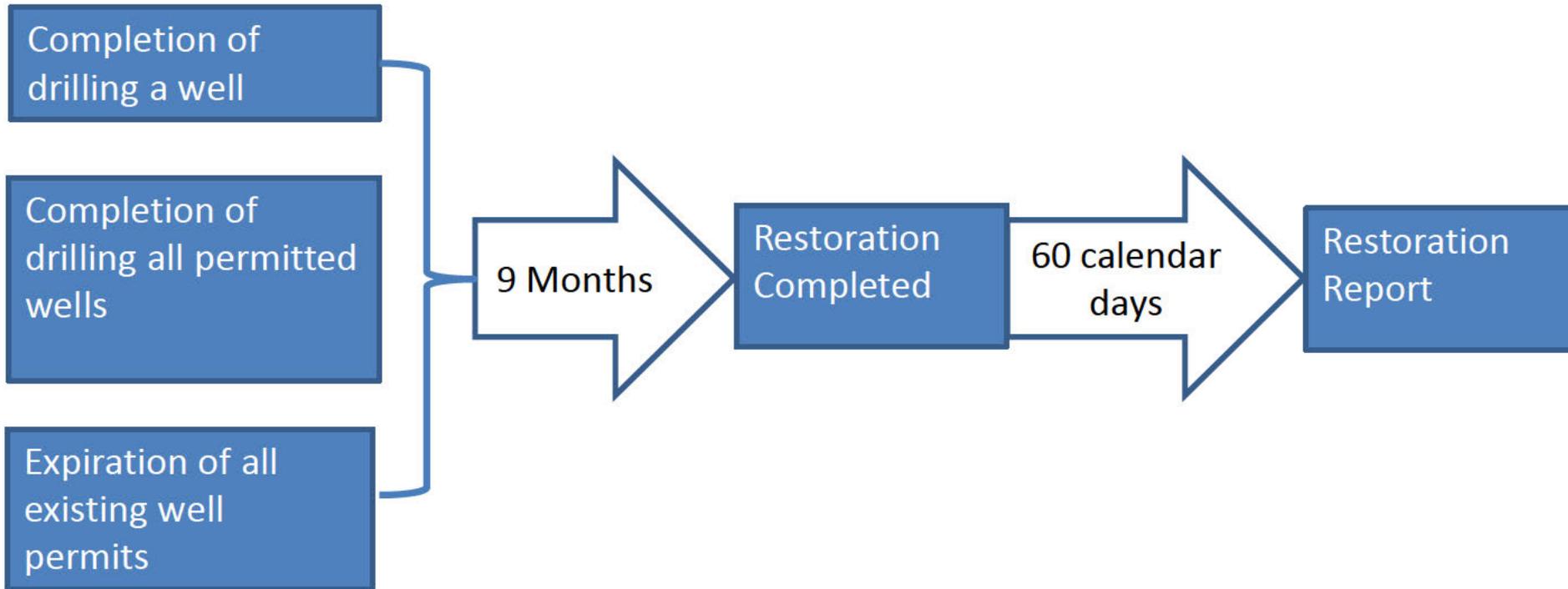
Site Restoration

§ 78a.65 (e) POST DRILLING RESTORATION REPORT

- Operators must restore land surface areas within 9 months after completion of drilling or expiration of all existing well permits on a well site, which ever occurs later
 - Must be submitted within 60 calendar days after post-drilling restoration
 - A copy must be forwarded to landowner

Site Restoration

Post Drilling Restoration Reports Timeline



Site Restoration

§ 78a.65 (e) POST DRILLING RESTORATION REPORT

- A. Operator and Well Information
- B. Land Application of Tophole Water
- C. Offsite Waste Disposal or Reuse
- D. Onsite Disposal – uncontaminated drill cuttings
- E. Onsite Disposal – contaminated drill cuttings and residual waste (pits)
- F. Onsite Disposal – Land Application
- G. Site Restoration

Site Restoration

§ 78a.65 (f) POST PLUGGING RESTORATION REPORT

Within 9 months, the well site should be restored to approximate original conditions

– Failure to Drill:

- If a well site is constructed and a well not drilled, the operator must restore the site within 9 months unless an extension is approved by DEP

– Restoration Period:

- May be extended, not to exceed 2 years

Site Restoration

Post Plugging Restoration Reports Timeline



Site Restoration

§ 78a.65 (f) POST PLUGGING RESTORATION REPORT

- A. Operator and Well Information
- B. Offsite Waste Disposal or Reuse
- C. Site Restoration

Site Restoration

§ 78a.65 (g) LANDOWNER CONSENT OF RESPONSIBILITY FOR WELL SITE RESTORATION

- A. Operator Information
- B. Landowner Information
- C. Landowner Consent
- D. Notarization



Borrow Pits

78a.67 Overview

- Borrow Pits must meet standards of related regulatory requirements
- Registration
- Comments on proposed regulatory language
- Commercial Pits

Borrow Pits

Regulatory cross references

- Ch. 102
- Noncoal Surface Mining Conservation Act (NCSMCRA)

Borrow Pits

§ 78a.1 Definition

- Borrow Pit—An area of earth disturbance activity where rock, stone, gravel, sand, soil or similar material is excavated for construction of well sites, access roads or facilities that are related to oil and gas development.



Borrow Pits

§ 78a.67. (a) Does not require a Non Coal Surface Mine Permit

§ 78a.67. (b) Existing Borrow Pit Registration

§ 78a.67. (c) Section 3273.1 of the Oil and Gas Act

§ 78a.67. (d) Inspection of existing Borrow Pits

Site Restoration

§ 78a.67 (b) Borrow Pit Registration

- A. Borrow Pit Owner Identification
- B. Borrow Pit Information
 - Old or New
 - Specific Location
 - Wells Serviced (current and future)
- C. Applicant Signature



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Questions?

Joe Kelly

Environmental Group Manager

Bureau of Oil & Gas Planning & Program Management

717.772.5991

(josephkel@pa.gov)



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