

PWSAP Webinar Series: Alternative Hydrogeologic Evaluation (AHE)

Part 3 – Commission Developed Voluntary Action Plans and AHE Forms

Key Personnel

Andrew Dehoff	Executive Director
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Scott McFeaters	Hydrogeologist
Dave Haklar	PWSAP Coordinator



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Webinar Series Overview

- Alternative Hydrogeologic Evaluation (AHE) Process/ Impacts to Other Users
 - January 27, 2022 - **Completed**
- Part 2 – AHE Process: Evaluating Sustainability and Impacts to the Environment
 - February 24, 2022 - **Completed**
- Part 3 – AHE Process: Commission Developed Voluntary Action Plans and AHE Forms
 - March 24, 2022

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What to Expect Today

- 90 minute webinar (please mute and cameras off)
- Presentation (~75 minutes)
 - Detailed discussion of Commission-developed Voluntary Action Plans
 - How we utilize the data
 - Data gaps and methods to resolve
 - Review processes and new elements of the AHE form
- Certificate of Attendance (must attend live webinar)
- Questions (~15 minutes)
 - Please utilize chat box

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Action Plans

- Recommended, not required
 - Summarize findings of existing data
 - Identify data gaps and provide plan to fill them
 - Can be the start of your AHE
- Commission prepares a Voluntary Action Plan for eligible PWSAP projects
- For Non-PWSAP projects, Action Plans can be completed by consultant

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Voluntary Action Plans (VAPs)

- Commission will prepare for projects eligible through PWSAP
 - Will present 5 plans today
- General Plan Format
 - Use existing data to answer the 3 Principal Risk Factors
 - Goal – low risk, no data gaps
- Possible outcomes:
 - Accept SRBC review and move straight to application
 - Complete supplemental testing to fill data gaps
 - Full aquifer test – always an option

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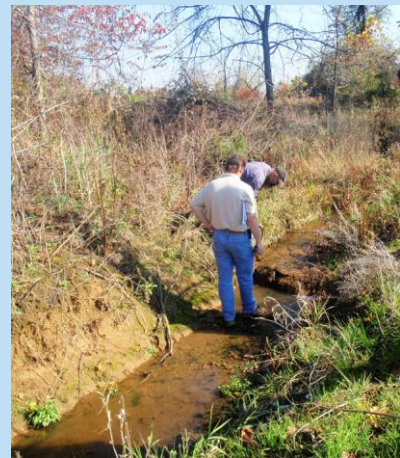
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Commission VAP Process

- Receive Request to Participate
 - Set meeting date
- Information gathering (Regulatory and Environmental Overview)
 - File review (brief review of historical tests/ data)
 - Ecological screening (to see what may be there)
 - Operational data review (withdrawal and water levels)
 - Withdrawal limitations/ docket conditions
- Field meeting
 - Understand how wells are used/ demand/ need
 - Observe well sites, other users, and environmental features
 - Follow-up with data request
- VAP - Data reduction
 - Develop site conceptual model
 - Assess risk factors
 - Identify data gaps
 - Recommendations for data collection, if needed



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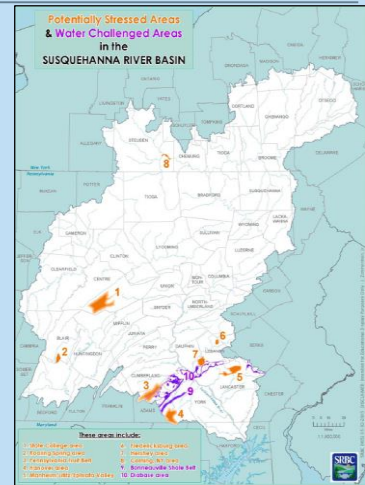


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VAP Example – Well 1

Background & Physical Setting:

- Well 1 - previously approved at 0.130 mgd
- Approved in 2008
- SRBC Water Challenged Area (WCA)
- Aquatic Resource Class 2 (ARC 2) stream nearby
- Wetland present
- Overview – possibly limited recharge, some environmental resources



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Well 1 – Available Data

Principal Risk Factor	Data Available
Sustainability	Historical GW availability analysis Historical 48-hour test – 90 day drawdown Good well log – identified water bearing zones Operational data – 13 years withdrawal & 5 years water level
Impacts to Other Users	Historical 48-hour test – monitoring of 8 wells PWS distribution map PaGWIS data & Aerial photo review
Sensitive Environ. Resources	Historical 48-hour test – stream & wetland monitoring Current PNDI results Current designated uses/ special protections

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Develop Conceptual Model – Well 1

Well 1 Conceptual Model:

- Formation - Poorly bedded silty shales @ base of Gettysburg Fm, strike SW-NE, dip to NW
- Hydro – DTW @ 27'; only drawdown along strike
- Flow system – Semi confined/confined setting
- Potential boundaries - stream to E/NE
- Overview – stream may be perched; preferred flow along strike (SW-NE);

Background | **Hydrogeologic Setting** | Groundwater Availability Analysis | AHE Supporting Documentation

2.0 Hydrogeologic Setting
A thorough description and understanding of the hydrogeologic setting is critical for staff's review of the source well site. This section should thoroughly describe the geologic and hydrologic properties of the project setting.

2.1 Site Conceptual Model
Please upload a description of the hydrogeologic setting and site conceptual model. The site-specific information provided in this section must adequately support a model that will assist in evaluating the withdrawal's sustainability, impacts to other users, and impacts to the environment. The site conceptual model described in this section must support the project sponsor's evaluation of factors that contribute to the risk-based conclusions presented in Section 4.

The following link provides instructions for describing the site conceptual model and a suggested outline for the description. To ensure that all appropriate information is included and to facilitate review of the submittal, please follow the outline included in the instructions.
[Instructions](#)

Upload pdf file:
Browse... No file selected.

2.2 Supporting Figures
Please upload the figures requested below to support the development of the site conceptual model. A file is required for each upload field, but a figure may not be needed because of site-specific conditions. If a figure is not needed to support the review of the project, please upload a file indicating why the figure was not needed.

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Well 1 – Sustainability Analysis

GW Availability Analysis (GWAA):

- User defined recharge area: 0.86 mi²
- GW recharge rate: consistent with literature
- Other users:
 - Few wells within AOI
 - Recent development in GWCB, but supplied by PWS
 - Operations data confirms test data accurate
- **Conclusion:** Historical GWAA remains reasonable; supports previously approved quantity is available – low risk

Source	Well 1
Recharge	
1-in-2 year recharge rate (mgd/mi ²)	0.410
1-in-10 year recharge rate (mgd/ mi ²)	0.220
Recharge Area (mi ²)	0.86
Basin 1-in-10 year drought recharge (mgd)	0.189
Other recharge, if applicable (mgd)	0
Withdrawals	
Requested Withdrawal (mgd)	0.130
Other withdrawals (mgd)	0.007
Total Withdrawals (mgd)	0.137
Remaining Groundwater¹	0.052
Percent Utilization²	72.4

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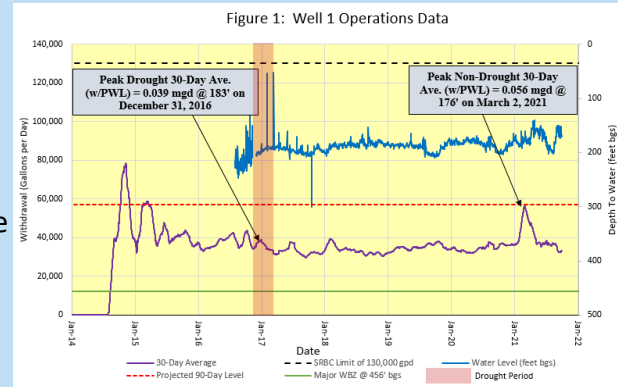
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Well 1 – Sustainability Analysis, con't

- Drought Considerations
 - Low usage in drought
 - 90 Day projected drawdown (Red) at 100 gpm = water level @ 296' BGS
 - Main WBZ @ 456 feet BGS (green)
 - Current Data – Supports level is where predicted; WBZ not exposed
- **Conclusion:** Operations data is consistent with historical test data; Low risk at historical rate.



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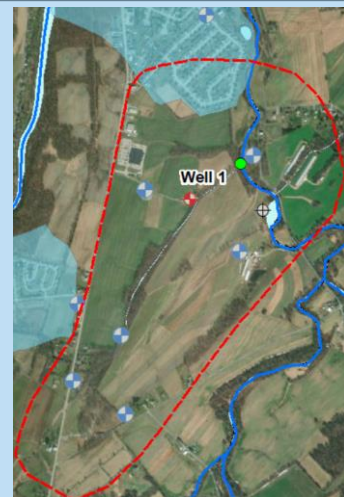
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Well 1 – Impacts to Other Users

- Historical Evaluation:
 - Testing - Only 1 of 8 obs. wells showed a pumping influence
 - Low usage in GW basin (red)
- Current Evaluation of Other Users:
 - No significant development – Based on PaGWIS & aerial mapping
 - New developments to North & SW - served by PWS
- **Conclusion:** Unlikely that new water users exist in the GWCB. Low risk.



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Well 1 – Impacts to Environ. Resources

- Streams, Rivers, and Springs
 - Stream monitored during historical testing; no influence detected
 - Warm water fishery (WWF); no special protection designations
- Wetlands
 - Nearby wetland monitored during historical testing; no influence detected
 - No special protection designations
- Rare, Threatened & Endangered (RTE) Species
 - No RTE species identified via Pennsylvania Natural Diversity Inventory (PNDI) search
- **Conclusion:** No impacts expected – low risk at historical rate.

2. SEARCH RESULTS

Agency	Results
PA Game Commission	No Known Impact
PA Department of Conservation and Natural Resources	No Known Impact
PA Fish and Boat Commission	No Known Impact
U.S. Fish and Wildlife Service	No Known Impact



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Well 1 - Summary

Principal Risk Factor	Status for Well 1	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	Good availability Operational data support historical test data	✓		
Are other users impacted?	No impacts based on historical testing New developments – served by PWS No obvious new sources via PaGWIS/maps	✓		
Are Environmental Resources Impacted?	Historical testing showed no impacts to SW No RTE species No sensitive resources	✓		

Conclusion – Evaluation of the 3 principal risk factors indicates continued use of Well 1 at the previously approved withdrawal quantity (0.130 mgd) presents low risk for impacts.

- Risk factors are satisfied with existing data; no additional hydro evaluation needed
- If SRBC prepared VAP – PWS project sponsor can use VAP as their AHE

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VAP Example – Well 2

Background & Physical Setting:

- Well 2 - previously approved at 0.350 mgd
- In use since 2003
- Not in SRBC WCA or PSA
- Susquehanna River (ARC 5) nearby
- Wetland & small stream proximal
- Overview – potential high yield aquifer, some environmental resources



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Well 2 – Available Data

Principal Risk Factor	Data Available
Sustainability	Historical 72-hour test – staff generated 90 day drawdown OK well log – unconsolidated Operational data – 18 years withdrawal & 4 years water level
Impacts to Other Users	Historical 72-hour test – monitoring of 6 wells Description of PWS distribution system NYSDEC well data & Aerial photo review
Sensitive Environ. Resources	Historical test – no surface water monitoring Current Resource mapper results Current designated uses/ special protections

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Develop Conceptual Model – Well 2

Well 2 Conceptual Model:

- Formation – alluvium: sand & gravel, no confining layers
- Hydro – GW @ 840' AMSL; River @ ~839' AMSL
- Flow system – Unconfined
- Potential boundaries - wetland/River to east & ARC 1 creek to west
- Overview – Appears to be prolific sand & gravel aquifer; wetland and stream nearby



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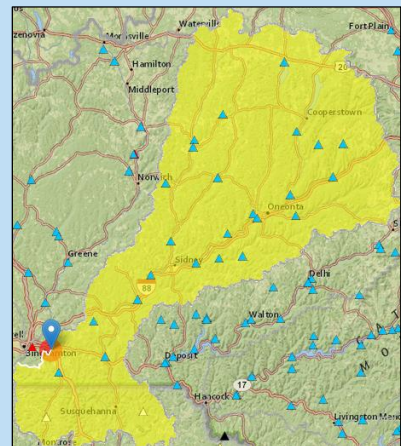


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Well 2 – Sustainability Analysis

GW Availability Analysis (GWAA):

- Recharge area is upgradient River basin: >2,200 mi²
- GW recharge rate: use base flow (10-year RI) value from nearby gage on River
- Other users:
 - Estimate using SRBC CWUAS
- **Conclusion:** GWAA supports more than previously approved quantity is available



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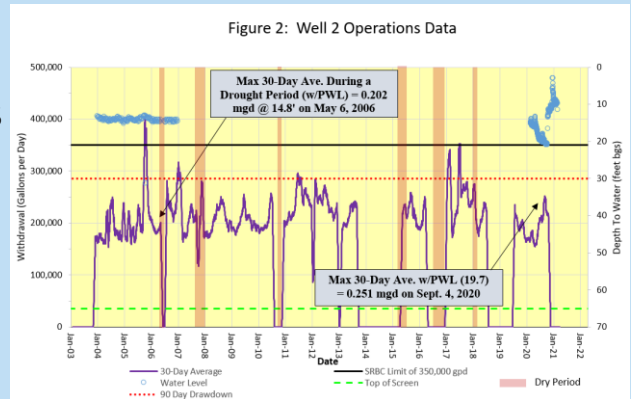
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Well 2 – Sustainability Analysis, con't

- Drought Considerations
 - Low usage in drought
 - 90 Day projected drawdown (Red) @ 1,678 gpm = water level @ 30' BGS
 - Top of well screen @ 65' BGS (Green)
 - Current Data – Supports level is where predicted; screen not exposed
- Conclusion: Operations data is consistent with historical test data; low risk at historical rate.



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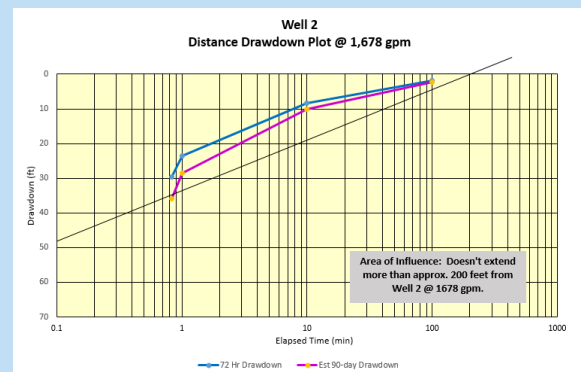
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Well 2 – Impacts to Other Users

- Historical Evaluation:
 - Testing – Used 3 obs. wells to estimate influence to 200'
 - No other users in AOI
- Current Evaluation of Other Users:
 - Entire area - served by PWS
 - No new development



Conclusion: Unlikely that new water users exist in the AOI – low risk.

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Well 2 – Impacts to Environ. Resources

- Streams, Rivers, and Springs:
 - NYSDEC Class C; No special designation
 - Stream not monitored during historical testing, but no data gap – beyond AOI
- Wetlands:
 - No special designation
 - Wetland not monitored during historical testing, but no data gap – beyond AOI
- Rare, Threatened & Endangered (RTE) Species:
 - A rare species identified via NYSDEC ERM in River
 - Potential Data Gap (Low Risk)
- **Conclusion:** Impacts not expected at previous rate.
Sponsor must confirm no species issue w/NYSDEC.



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Well 2 - Summary

Principal Risk Factor	Status for Well	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	More than previous quantity available Operational data support historical test data - well screen will not be exposed	✓		
Are other users impacted?	No impacts based on historical testing AOI – served by PWS No new sources within AOI	✓		
Are Environmental Resources Impacted?	Historical testing showed short ROI T/E mussel species No sensitive resources	✓		

Conclusion – Evaluation of the 3 principal risk factors indicates continued use of Well 2 at the previously approved withdrawal quantity (0.350 mgd) presents low risk for impacts.

- Risk factors are satisfied with existing data; no additional hydro evaluation needed
- If SRBC prepared VAP – PWS project sponsor can use VAP as their AHE

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Well 2 - Recommendations

- **One main difference compared to Well 1**
 - Original test @ 1,678 gpm (2.416 mgd)
 - Current data consistent with original test; therefore:
- **Option 1 – Accept SRBC Evaluation:**
 - Renew Well 2 at a withdrawal quantity of up to 2.416 mgd (1,678 gpm)
 - Can use SRBC VAP as the Well 2 AHE
 - Sponsor to confirm no species impact if >0.350 mgd
 - Quantity approved – will consider reasonable foreseeable need



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VAP Example – Well 4

Background & Physical Setting:

- Previously approved at 0.365 mgd
- In use since 1997
- Not in SRBC WCA or PSA
- Nearby river and wetland
- Overview – potential high yield aquifer, some environmental resources



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Well 4 – Available Data

Principal Risk Factor	Data Available
Sustainability	Historical 48-hour test – staff generated 90 day drawdown Operational data – 20 years withdrawal & 6 years water level Minimal recent water level data since 2005
Impacts to Other Users	Historical 48-hour test – monitored 4 wells PWS distribution map NYSDEC database & Aerial photo review
Sensitive Environ. Resources	Historical test – no surface water monitoring Current Resource mapper results Current designated uses/ special protections

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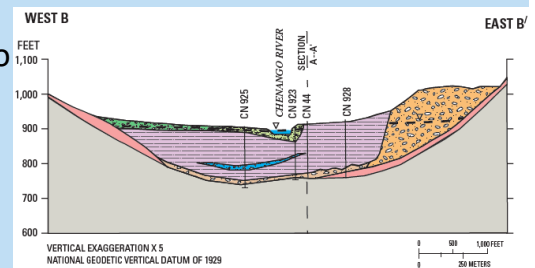
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Develop Conceptual Model – Well 4

Well 4 Conceptual Model:

- Formation – glacial outwash sand & gravel; 100' of clay
- Hydro – GW @ 903' AMSL; River @ ~894' AMSL
- Flow system – Potentially confined
- Potential Boundaries - Wetland and Chenango
- Overview – High T aquifer; shallow depth to water; potentially perched wetlands



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Well 4 – Sustainability Analysis

GW Availability Analysis (GWAA):

- X-section shows gravel layer exposed to east, est. recharge area: 1.5 mi²
- GW recharge rate: used mean annual base flow for USGS gage <1 mile away
- Few other withdrawal in basin
- **Conclusion:** Sufficient GW resources are available to support the project

Source	Well 4
Recharge	
1-in-2 year recharge rate (mgd/mi ²)	1.004
1-in-10 year recharge rate (mgd/ mi ²)	0.602
Recharge Area (mi ²)	1.5
Basin 1-in-10 year drought recharge (mgd)	0.904
Other recharge, if applicable (mgd)	0
Withdrawals	
Requested Withdrawal (mgd)	0.365
Other withdrawals (mgd)	0.50
Total Withdrawals (mgd)	0.415
Remaining Groundwater¹	0.489
Percent Utilization¹	45.9

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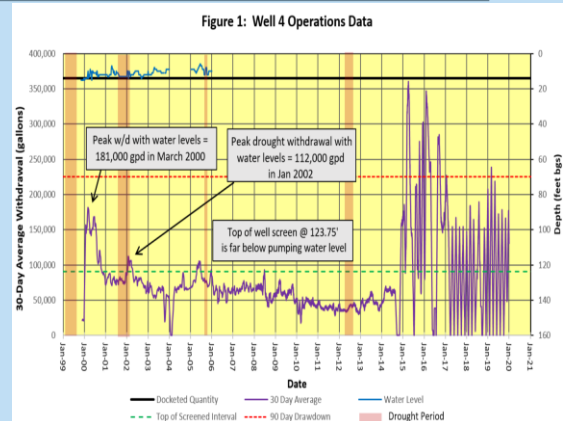
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Well 4 – Sustainability Analysis, con't

- Will Well Screen Be Exposed?
 - Historical vs. Current Data
 - 500 GPM historical test
 - 90-Day projected WL (Red) of 70' BGS
 - Top of well screen @ ~123' BGS (Green)
 - Op. Data – Max. 0.181 mgd in drought
 - Water Levels – Historical levels are static (not pumping)
- **Conclusion:** operations data is inconclusive but 0.181 mgd during drought; Low risk at historical rate



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Well 4 – Impacts to Other Users

- Historical Evaluation:
 - Testing - 4 wells monitored showed no pumping influence (<1,000')
- Current Evaluation of Other Users:
 - AOI - served by PWS
- Conclusion: Unlikely that new water users exist in the AOI; Low potential risk.



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Well 4 – Impacts to Environ. Resources

- Streams, Rivers, and Springs:
 - NYSDEC Class C; No special designation; Large
 - Low Risk
- Wetlands:
 - Potential special designation
 - Wetland not monitored during historical testing; within AOI; similar water level
 - Medium Risk
- Rare, Threatened & Endangered (RTE) Species:
 - A rare species identified via NYSDEC ERM in River
 - Low Risk
- Conclusion: Medium Risk (wetlands)



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Well 4 - Summary

Principal Risk Factor	Status for Well	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	Previous quantity is available, but Op. data cannot confirm historical test data remains accurate	✓	✓	
Are other users impacted?	Low impacts based on historical testing Most of GWCB is served by PWS	✓		
Are Environmental Resources Impacted?	Setting rules out impact to River Wetland not sensitive, but possible connection RTE species related to River – no impact	✓	✓	

Conclusion – Sustainability and Environment need additional work for previously approved rate (0.365 mgd). However, low risk if operational rates are acceptable (0.181).

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Well 4 - Recommendations

- **Option 1 (Low Risk)** – Accept SRBC Evaluation:
 - Renew Well 4 at a 0.181 mgd (max use during drought)
 - Can use SRBC VAP for AHE and hydro evaluation
- **Option 2 (High Risk)** Seek withdrawal higher than 0.181, up to 0.365 mgd:
 - Complete additional hydrogeologic testing needed to fill data gaps
 - Need to confirm 90 day drawdown & no/acceptable impacts to wetland
 - Agency coordination for RTE



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VAP Example – Well 5

Background & Physical Setting:

- Well 5 - previously approved at 0.101 mgd
- In use since 1992
- Not in SRBC WCA or PSA
- ARC 1 stream nearby
- Wetlands present
- Overview – possibly low recharge, some environmental resources



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Well 5 – Available Data

Principal Risk Factor	Data Available
Sustainability	Historical 50-hour test – no hydro report OK well log – identified water bearing zones Operational data – 22 years withdrawal & 8 years water level
Impacts to Other Users	Historical 50-hour test – no observation wells PWS distribution map PaGWIS data & Aerial photo review
Sensitive Environ. Resources	Historical test – no surface water monitoring Current PNDI results Current designated uses/ special protections

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Develop Conceptual Model – Well 5

Conceptual Model:

- Formation – Shale of Mauch Chunk Fm, no site-specific structure details
- Hydro – GW @ ~746' AMSL; SW @ ~736' AMSL
- Flow system – Uncertain
- Potential boundaries-wetlands/streams to W/NW
- Overview – GW likely discharging at nearby wetland/stream



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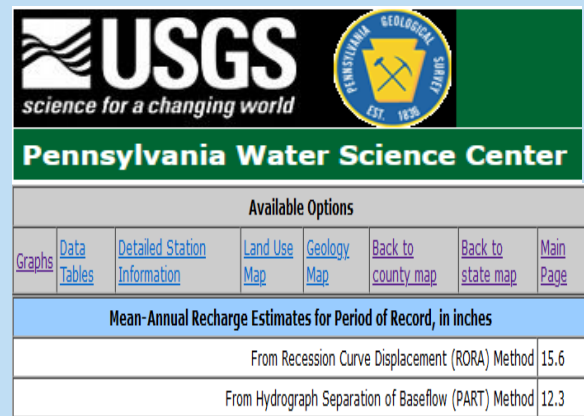
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Well 5 – Sustainability Analysis

- **GW Availability Analysis (GWAA):**
 - Use topo. drainage to downgradient point on nearby UNT: 2.55 mi²
 - GW recharge rate: use of PART recharge for nearby USGS gage
 - Other users:
 - Very rural/forested area
 - Low estimated use
- **Conclusion:** GWAA supports low risk at previously approved quantity.



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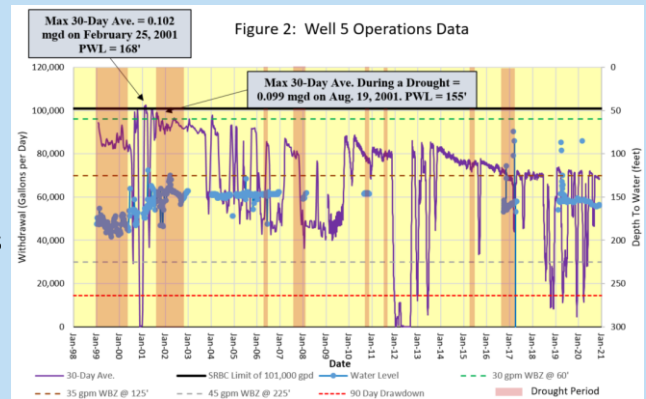
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Well 5 – Sustainability Analysis, con't

- Drought Considerations
 - Use near limit = WBZs exposed
 - 90 Day projected drawdown (Red) @ 82 gpm = water level @ 254' BGS
 - WBZs @ 60, 125 & 225 ft BGS (Green)
 - Ops. Data - Withdrawals declining; consistent water levels below 2 WBZs
- **Conclusion:** Historical data and operations data demonstrate WBZ exposure – high risk @ previous rate.



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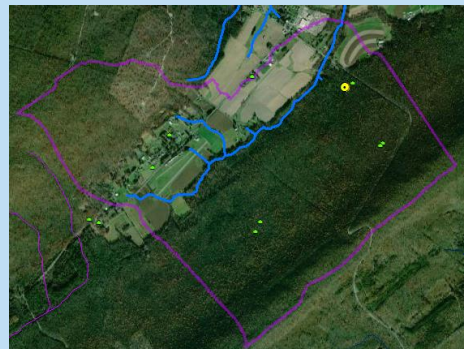
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Well 5 – Impacts to Other Users

- Current Evaluation of Other Users:
 - Approx. 6 residents in 2,000' radius
 - Rural/forested area–few users expected
- **Conclusion:** There are few water users in the GWCB. However, medium risk potential to 6 residents because we don't know how aquifer responds.



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Well 5 – Impacts to Environ. Resources

- Streams, Rivers, and Springs:
 - Stream not monitored during historical testing
 - Cold water fishery (CWF); no wild trout classification.
 - **DATA GAP**
- Wetlands:
 - Wetland not monitored during historical testing
 - No special protections
 - **DATA GAP**
- Rare, Threatened & Endangered (RTE) Species:
 - A PFBC “conservation measure” identified via Pennsylvania Natural Diversity Inventory (PNDI) search - timber rattlesnake
 - **Not a data gap**
- Conclusion: High risk to environmental resources.



2. SEARCH RESULTS

Agency	Results
PA Game Commission	No Known Impact
PA Department of Conservation and Natural Resources	No Known Impact
PA Fish and Boat Commission	Conservation Measure
U.S. Fish and Wildlife Service	No Known Impact

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Well 5 - Summary

Principal Risk Factor	Status for Well	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	Previous quantity is available, but Historical test data & Operational data suggests rate is not sustainable			✓
Are other users impacted?	Few potential wells to impact; however there are 6 residents to consider impacts.		✓	
Are Environmental Resources Impacted?	Historical testing-no stream monitoring Historical testing-no wetland monitoring RTE species – not a concern			✓

Conclusion – Evaluation of the three principal risk factors indicates potential risks to the sustainability, to other users, and to environmental resources by continued use of Well 4 at a withdrawal quantity of 0.101 mgd.

- Staff can not support renewal at rate of 0.101 mgd
- Additional hydrogeologic testing needed to fill data gaps

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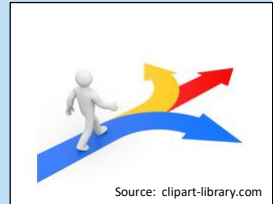
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Well 5 - Recommendations

- **Step 1** – Further Evaluation:
 - Short term test/rehab. to consider sustainable rate
 - Discuss results with consultant and/ or SRBC
- **Step 2** – Operational Testing or Aquifer Test Plan:
 - Complete additional hydrogeologic testing needed to fill data gaps
 - Confirm no/acceptable impacts to streams/wetlands
 - Confirm no impacts to other users
 - Plan to protect WBZs
- **Step 3** – Identify appropriate withdrawal rate:
 - Use new data to identify rate that answers the 3 questions



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VAP Example – Well 6

Background & Physical Setting:

- Previously approved at 0.060 mgd
- In use since 1989
- Not in SRBC WCA or PSA
- Small stream
- Overview
 - Environmental resources
 - Interconnection with nearby PWS
 - Not used at approved rate



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Well 6 – Available Data

Principal Risk Factor	Data Available
Sustainability	Historical constant head test Operational data – 22 years withdrawal & 8 years water level Informal operations plan
Impacts to Other Users	Historical test – several observation wells PWS distribution map (complete coverage of AOI) PaGWIS data
Sensitive Environ. Resources	Historical test – no surface water monitoring Current PNDI results Current designated uses/ special protections

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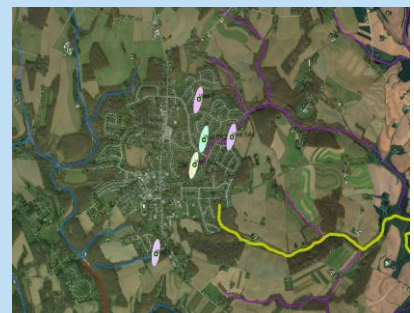


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Develop Conceptual Model – Well 6

Well 6 Conceptual Model:

- Formation – Schist and phyllite
- Hydro – GW @ 458' AMSL; Stream @ ~450' AMSL
- Flow system – Semi-confined
- Potential Boundaries - Wetland and stream
- Overview
 - Low T aquifer
 - Shallow depth to water and water bearing zones



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Well 6 – Sustainability Analysis

GW Availability Analysis (GWAA):

- Approximately 1 mi² basin
- Low usage
- One small withdrawal
- Conclusion:
 - Very little attention to GWAA needed
 - Sufficient GW resources are available to support the project

Source	Analysis
Recharge	
1-in-2 year recharge rate (mgd/mi ²)	0.470
1-in-10 year recharge rate (mgd/ mi ²)	0.282
Recharge Area (mi ²)	1.07
Basin 1-in-10 year drought recharge (mgd)	0.300
Other recharge, if applicable (mgd)	0
Withdrawals	
Requested Withdrawal (mgd)	0.060
Other withdrawals (mgd) (Well 7)	0.020
Total Withdrawals (mgd)	0.080
Remaining Groundwater ¹	0.220
Percent Utilization ²	27%
Phase II Analysis ³ (mgd)	0
Percent Utilization	27%

1 - Negative number indicates request exceeds availability
 2 - Utilization greater than 100% indicates request exceeds availability
 3 - Positive represents increases in recharge and negative represents loss of recharge through the entire recharge area.

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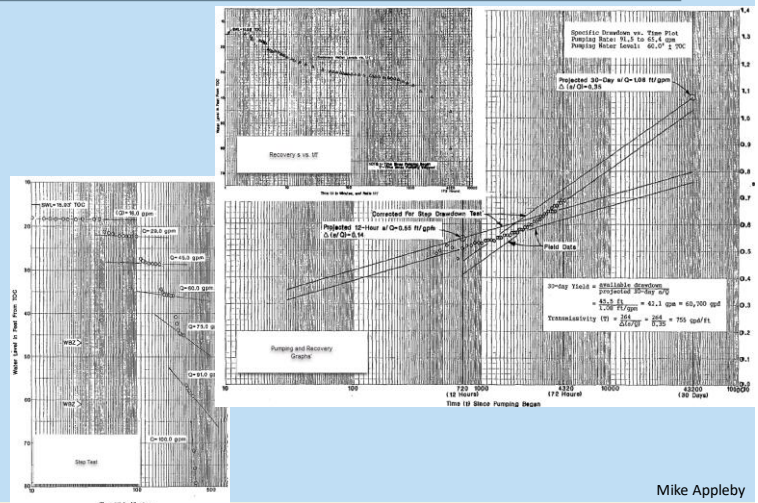
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Well 6 – Sustainability Analysis, con't

- Historical testing
 - Approved at reduced rate (41 gpm)
 - Constant-head test
 - 91 GPM to start
 - 65 GPM at end
 - Step test may indicate rate should be ~20 gpm



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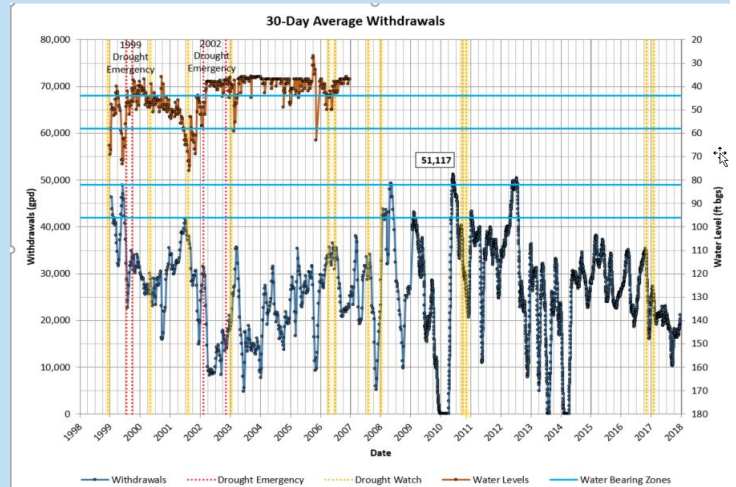
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Well 6 – Sustainability Analysis, con't

- Operational data
 - Confirmed testing results
 - Demonstrated approved quantity was rarely available
 - Informal trigger levels established to reduce withdrawals – routinely hit



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Well 6 – Sustainability Analysis, con't

- Conclusions:
 - Previously approved quantity not sustainable and rarely available
 - Sustainable rate would be less than half of normal operational rates
 - Project is aware of operational limitations and uses interconnection when needed
 - Risk?

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Well 6 – Impacts to Other Users

- **Historical Evaluation:**
 - Testing - 4 wells monitored showed no pumping influence (<1,000')
- **Current Evaluation of Other Users:**
 - AOI - served by PWS
- **Conclusion:**
 - Unlikely that water users exist in the AOI;
 - Low risk.



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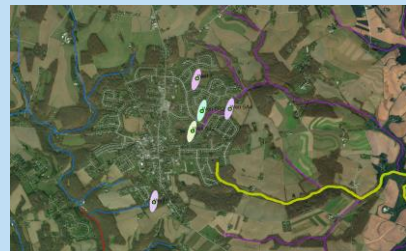
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Well 6 – Impacts to Environ. Resources

- **Streams, Rivers, and Springs:**
 - Impaired, intermittent stream; no wetlands
- **Rare, Threatened & Endangered (RTE) Species:**
 - None
- **Conclusion: Low Risk (as currently operated)**



PA Department of Conservation and Natural Resources

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: <https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Magnolia tripetala	Umbrella Magnolia	Threatened	Special Concern Species*	Flowers in May with the leaves, cone-like fruit structure year-round

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Well 6 - Summary

Potential Data Gap	Status for Well	Low Risk	Medium Risk	High Risk
Is the Withdrawal Sustainable?	No Informal operations plan protects water bearing zones; alerts project when reductions are needed Project operates interconnection with sufficient contracted capacity		✓	
Are other users impacted?	PWS serves AOI	✓		
Are Environmental Resources Impacted?	Not at historical levels	✓		

Conclusion – Previously approved quantity not available; Sustainable quantity would be significant restriction

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Well 6 - Recommendations

- Accept SRBC Evaluation
 - Data collection will not help reach previously approved rate
 - Formalize operations plan
 - Recommend approval of unsustainable quantity
 - Sufficient other sources
 - Allows project to utilize resource when it is available

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Certificate of Completion

Please follow these steps to receive a certificate, documenting 1.5 hours of instruction, for today's webinar:

- 1) Email PWSAP at PWSAP@srbc.net.
 - 1) Reply to original Part 3 advertisement or;
 - 2) Reply to "one day away" or "day of" emails.
- 2) **Must use email address that was used to register for the webinar series.**
- 3) Please include the word "Aquifer" in the body of the email.
- 4) Include "Completion Certificate" in the subject line.
- 5) Send the email prior to 3:00 pm EST today.

Commission staff will compile the list of eligible attendees and send certificates in coming weeks.

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Online AHE Form Demo

- Applications Webpage:

<https://www.srbc.net/regulatory/application-process/>

- AHE Functional Template:

<https://services.srbc.net/SWApp/default.aspx?user=ahedemo1884&pswd=8065c0e7>

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Additional Resources

General Project Review Questions

- Todd Eaby, teaby@srbc.net

Groundwater Projects

- Mike Appleby mappleby@srbc.net
- Bill Miller wmiller@srbc.net

Environmental Review

- Dave Haklar dhaklar@srbc.net

PWSAP

- Scott McFeaters smcfeaters@srbc.net
- Mike Appleby mappleby@srbc.net
- Dave Haklar dhaklar@srbc.net

Important References

- Groundwater Project Renewal Process Fact Sheet
- Operational Monitoring and Operational Testing Fact Sheet
- Water Level Monitoring Fact Sheet
- Alternative Hydrogeologic Evaluation Policy
- Functional Sample Templates
- Aquifer Testing Guidance
- Online Form Instructions

Questions & Additional Information

If you have questions or want to schedule a free pre-application meeting, please contact the Commission's Manager of Project Review or the Groundwater Supervisor

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Up Next

- AHE Process Consultant-based Workshop (in-person)
 - What: In-depth discussion of AHE process; Example project exercises
 - When: May 25th, 2022 from 8:30 to noon
 - Where: Susquehanna River Basin Commission Headquarters in Harrisburg, PA
 - Who: Geologists and consultants (exploring NY PG CEUs)
 - How Many: Limited to 25 -30 people

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Summary

- Start process early and contact us with questions
 - Utilize what you have; collect only the data you need to
 - Break the project into manageable pieces
- 1) Email PWSAP at PWSAP@srbc.net.
 - 1) Reply to original Part 3 advertisement or;
 - 2) Reply to “one day away” or “day of” emails.
 - 2) **Must use email address that was used to register for the webinar series.**
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