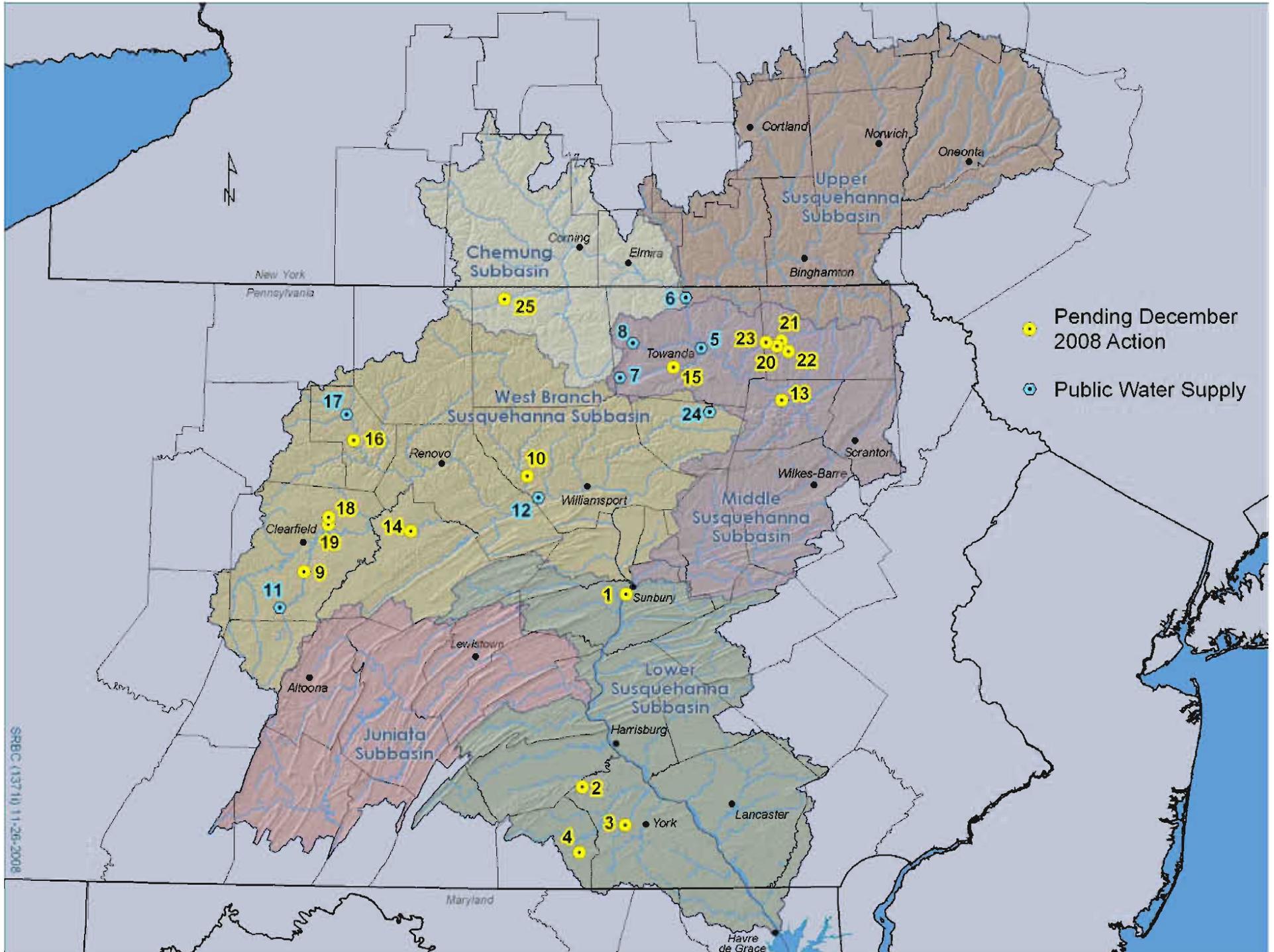


Regulatory Program Actions



December 4, 2008

Bel Air, Maryland



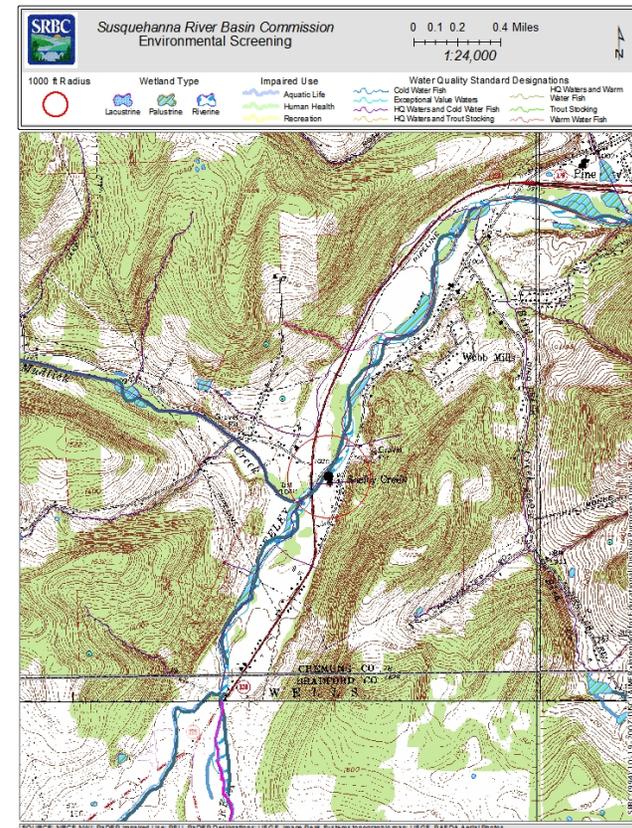
Commission Regulations

- Projects requiring review and approval
 - Consumptive water use §806.4(a)(1)
 - 20,000 gpd/30-day average (600,000 gallons)
 - Water withdrawals §806.4(a)(2)(iii)
 - 100,000 gpd/30-day average (3,000,000 gallons)
 - Any project which involves a withdrawal from a groundwater or surface water source and which is subject to the requirements of §806.4(a)(1) regarding consumptive use

Project Review Application Requirements and Standard Conditions

- Notification Requirements
- Coordination
- Aquifer Testing

- Metering
- Monitoring and Reporting
- Periodic Inspection
- Mitigation for adverse impacts
- Water Conservation
- Docket Reopener



Project Review Applications

Staff is recommending the following applications be tabled:

J-W Operating Company

- Abandoned Mine Pool
- Sterling Run

Ultra Resources, Inc.

- Elk Run
- Pine Creek

PPL Holtwood, LLC

- Holtwood Hydroelectric Station

Application withdrawn by project sponsor:

EXCO-North Coast Energy, Inc.

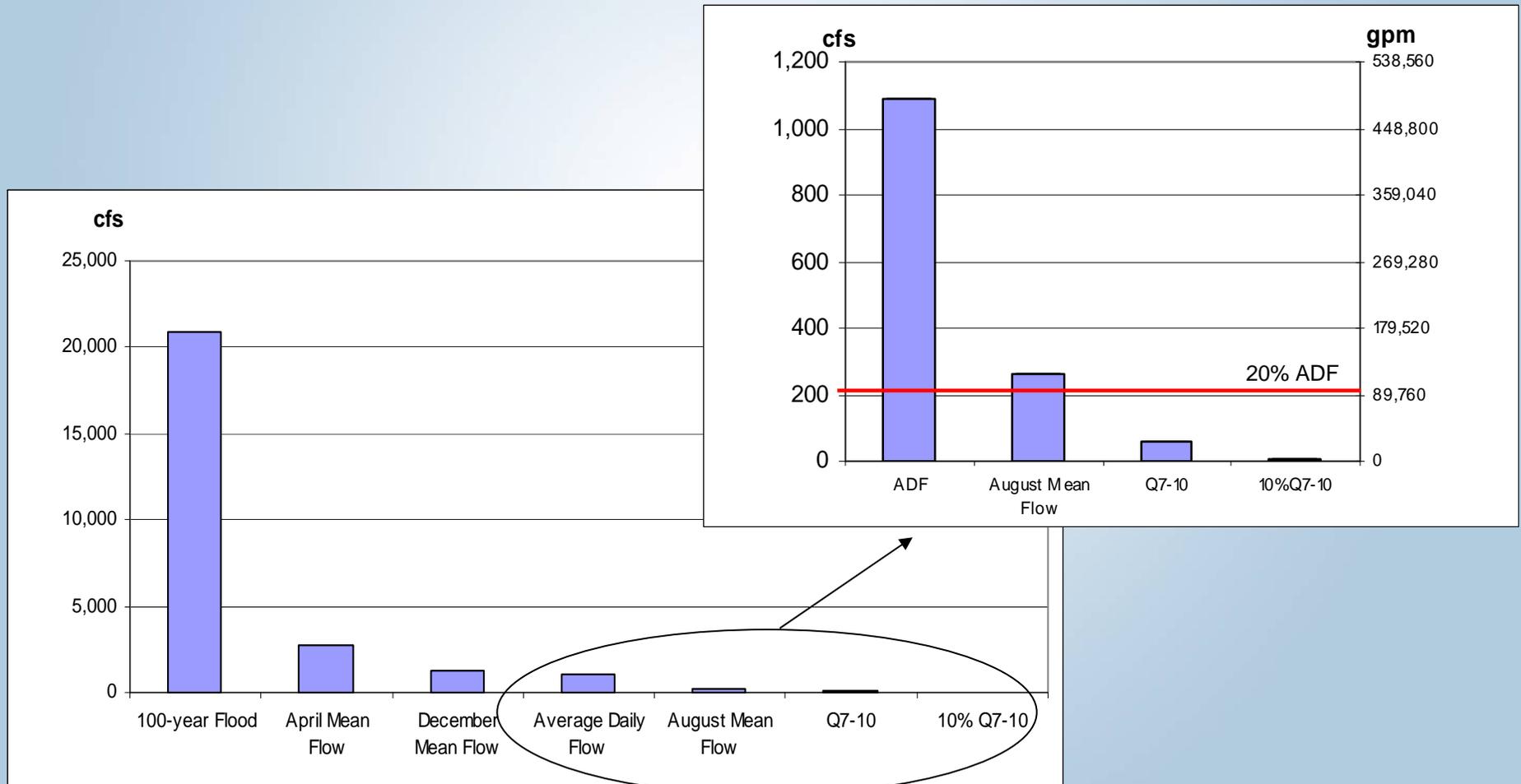
- Consumptive Use

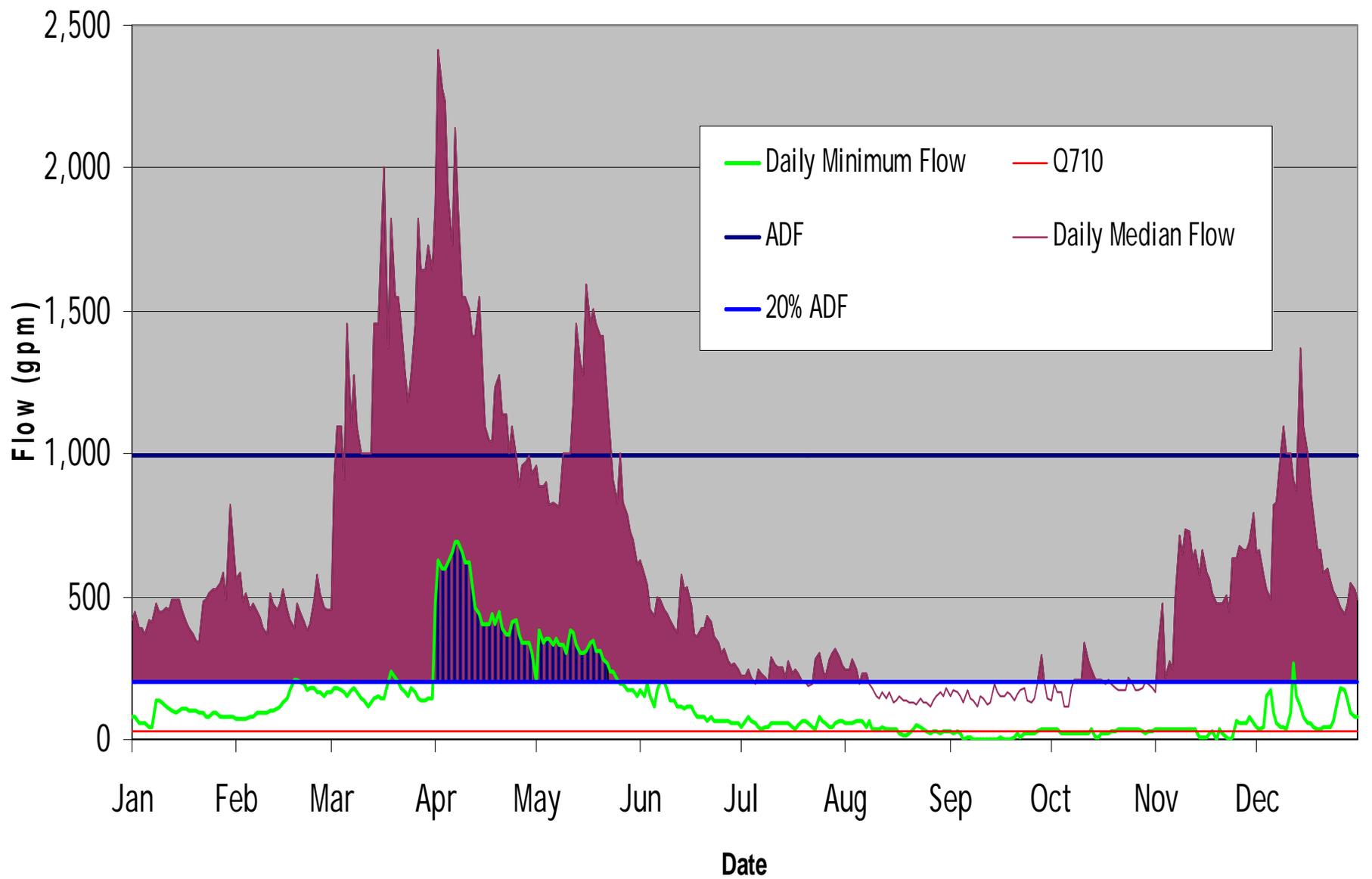
Commission Regulation

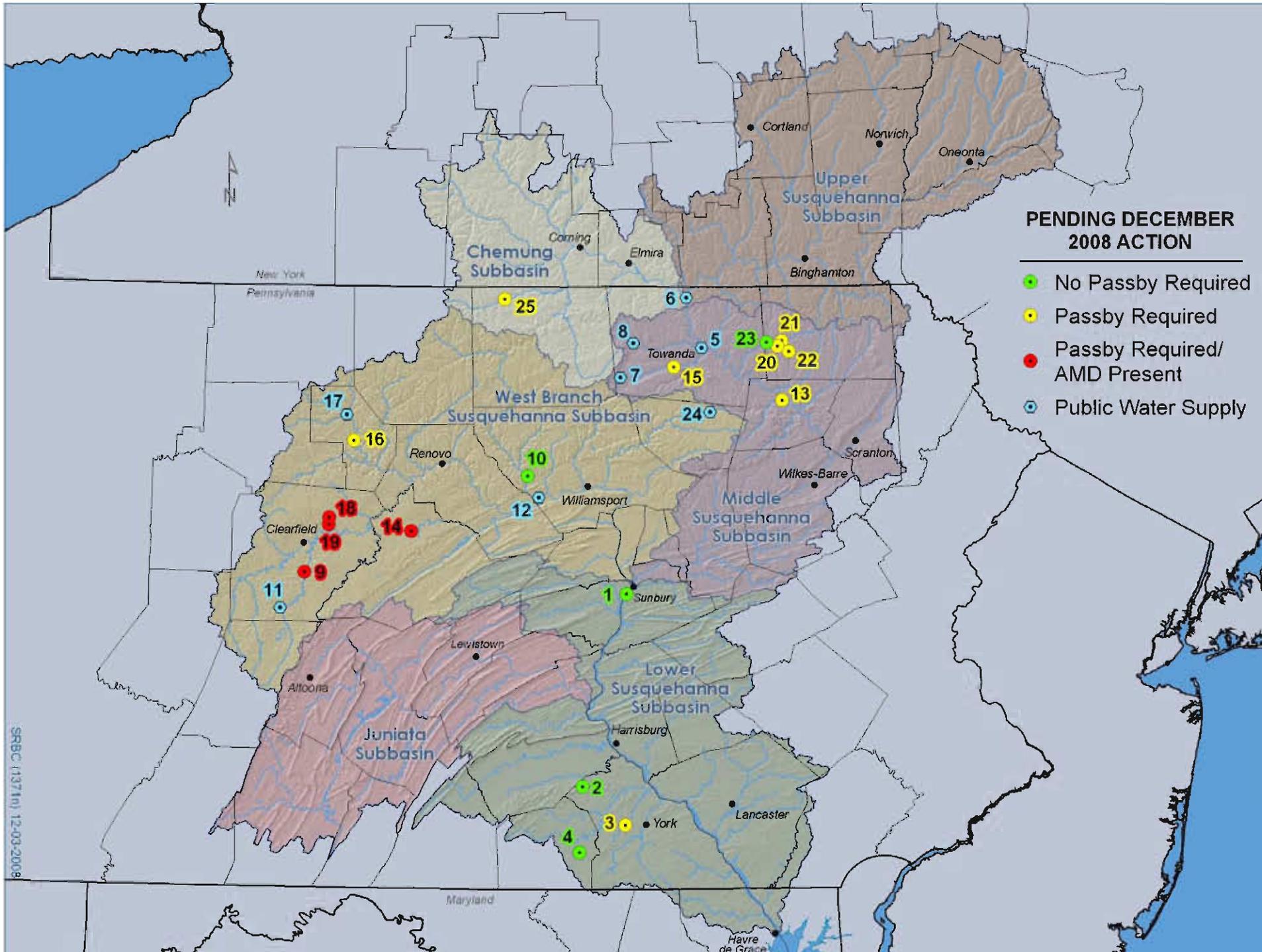
Water withdrawals §806.4(a)(2)(iii)

(2) The Commission may deny an application, limit or condition an approval to ensure that the withdrawal will not cause significant adverse impacts to the water resources of the basin. The Commission may consider, without imitation, the following in its consideration of adverse impacts: Lowering of groundwater or stream flow levels; rendering competing supplies unreliable; affecting other water uses; causing water quality degradation that may be injurious to any existing or potential water use; affecting fish, wildlife or other living resources or their habitat; causing permanent loss of aquifer storage capacity; or affecting low flow of perennial or intermittent streams.

Affecting Low Flow of Perennial or Intermittent Streams







SRBC (1371a) 12-03-2008

Passby Flow Determination

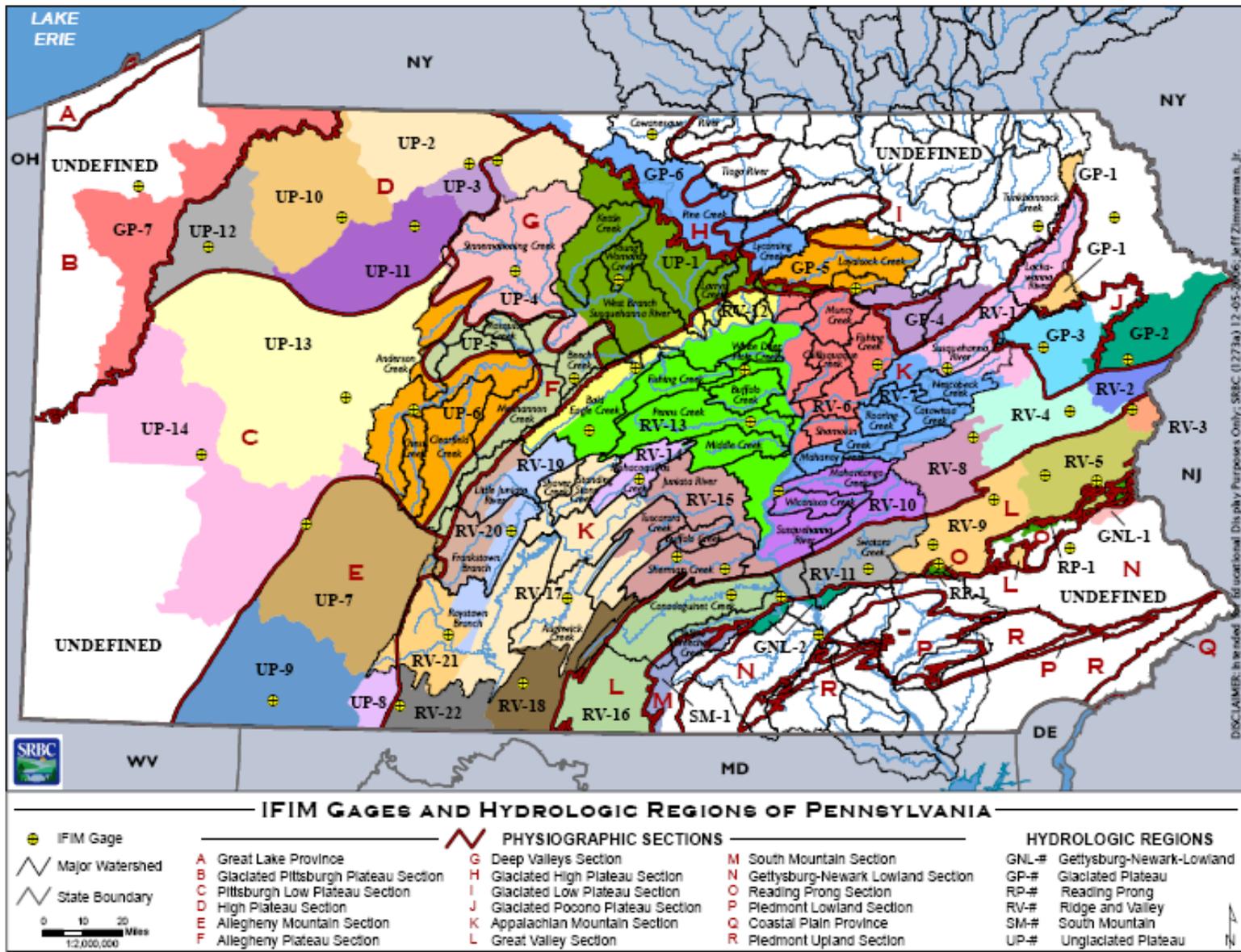
- Cumulative Water Demand:
 - $\leq 10\%$ Q7-10 Passby Flow Not Normally Required
 - Uninterrupted Withdrawal
 - $> 10\%$ Q7-10, Passby Flow Required
 - Interrupted Withdrawal
 - Reduce Proposed Withdrawal Rate to $\leq 10\%$ Q7-10, or
 - Determine Passby Flow Condition (SRBC Policy No. 2003-01)

Passby Flow Determination

Tennant Method vs. IFIM Method

- Determine Chapter 93 Existing/Designated Water Use
 - Apply IFIM Method (SRBC, 1998) for:
 - Coldwater Streams in Study Area with DA < 100 Square Miles
 - EV = \leq 5% Habitat Loss
 - HQ = \leq 7.5% Habitat Loss
 - CWF, Class B Trout = \leq 10% Habitat Loss
 - CWF, Class C/D Trout = \leq 15% Habitat Loss
 - Passby Flow Never less than Q7-10

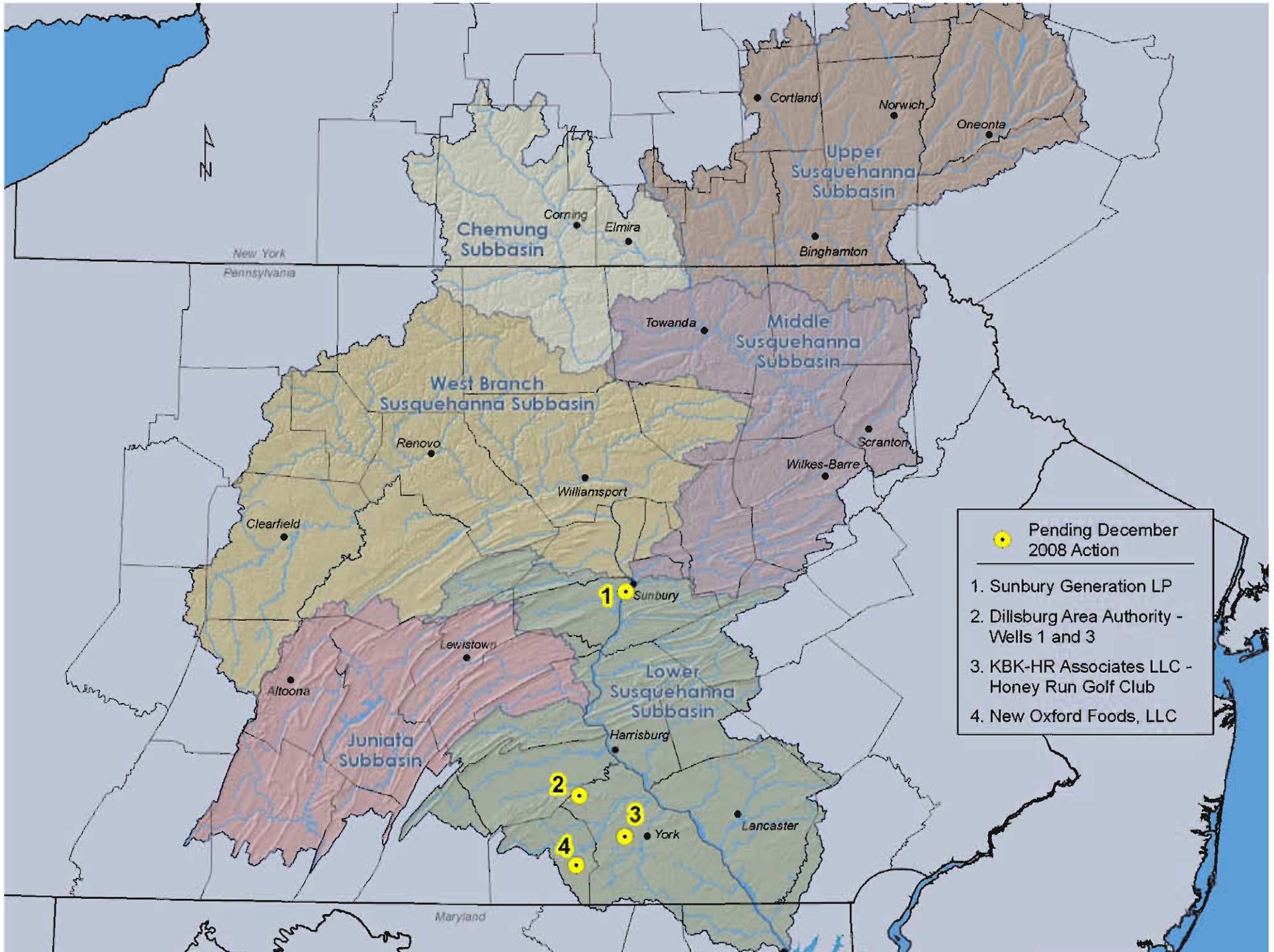
IFIM Study Area



Passby Flow Determination

Tennant Method vs. IFIM Method

- Determine Chapter 93 Existing/Designated Water Use
- Not Covered by IFIM Method Criteria --- Tennant Method Streams
 - EV, HQ, and Wild Trout = 25% Average Daily Flow (ADF)
 - Non- EV, HQ, and Wild Trout and Not AMD-Impaired = 20% ADF
 - Partially AMD-Impaired with Some Aquatic Life = 15% ADF
 - Passby Flow Never To Be < Q7-10



Project Review Applications

Staff is recommending action on the following projects:

Sunbury Generation LP

- Consumptive water use 8.0 *mgd*
- Surface water withdrawal (Susquehanna River) of 354.0 *mgd* (548 *cfs*)

Dillsburg Area Authority

- Groundwater withdrawal - Well 1 0.022 *mgd* (30-day ave) max pumping rate 67 *gpm*
- Groundwater withdrawal - Well 3 0.101 *mgd* (30-day ave) max pumping rate 175 *gpm*

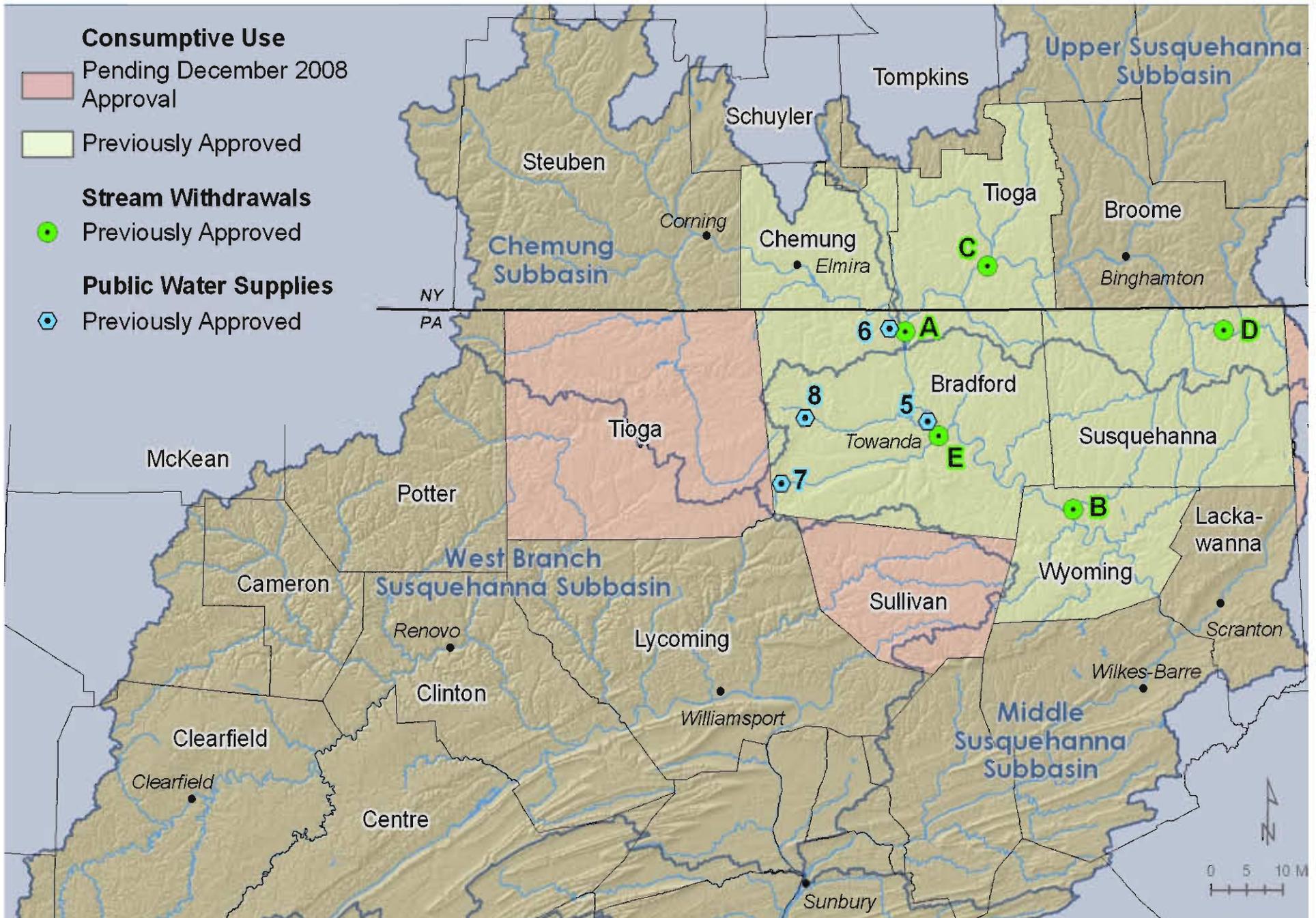
KBK-HR Associates LLC - Honey Run Golf Club

- Consumptive water use 0.382 *mgd*
- Surface water withdrawal (Honey Run) of 0.362 *mgd* (265 *gpm*)
 - 20% ADF Passby -- 0.899 *cfs* (404 *gpm*)
- Surface water withdrawal (Little Conewago Creek) of 1.440 *mgd* (1,000 *gpm*)
 - 20% ADF Passby -- 5.0 *cfs* (2,228 *gpm*)

New Oxford Foods, LLC

- Consumptive water use 0.380 *mgd*
- Groundwater withdrawal - Well 1 0.035 *mgd* (30-day ave) max pumping rate 64*gpm*

CHESAPEAKE APPALACHIA, LLC



Chesapeake Appalachia, LLC

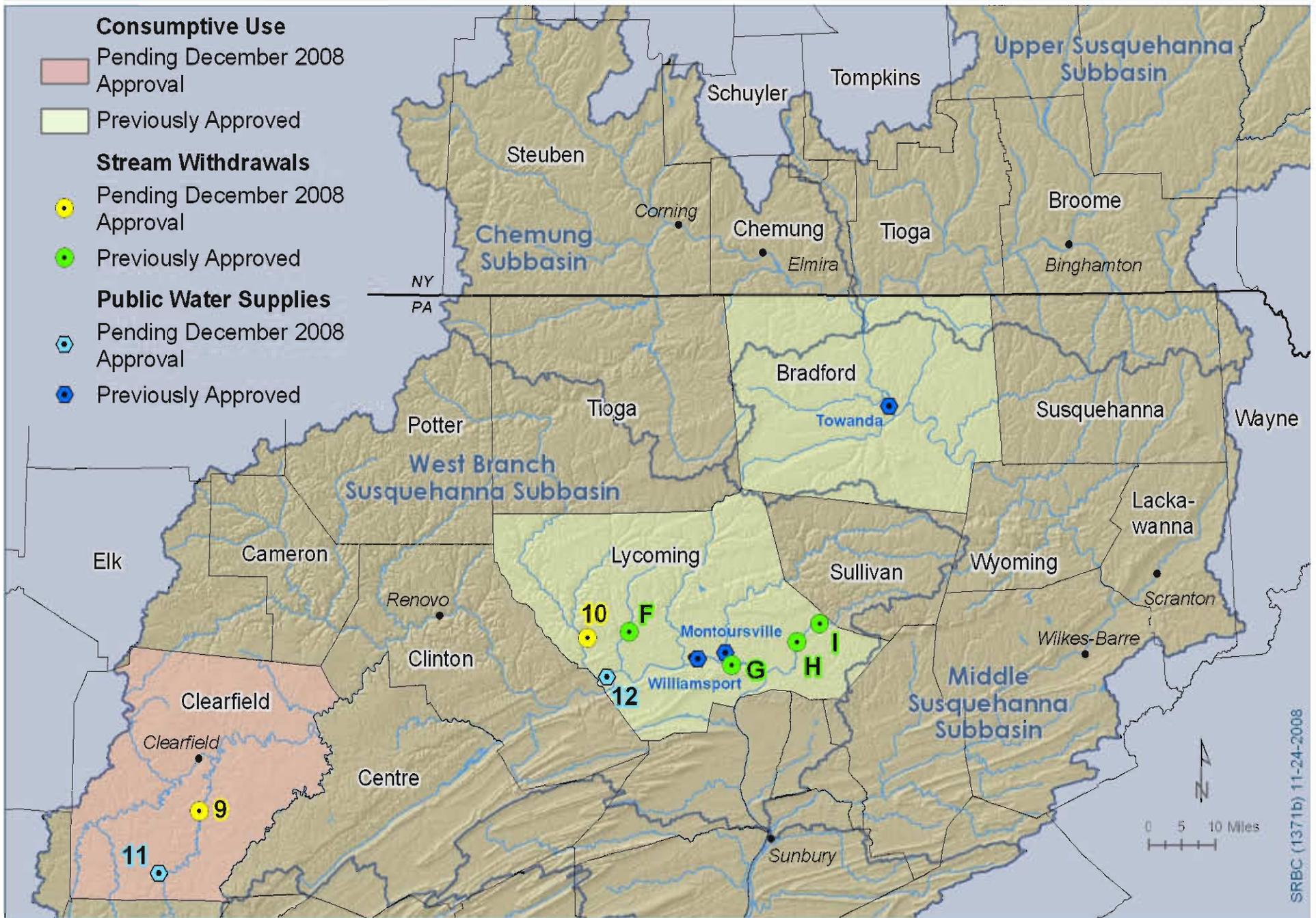
Consumptive Water Use Modification of up to 7.500 mgd

- Chemung and Tioga Counties, NY, and Bradford, Sullivan, Susquehanna, Tioga, Wayne, and Wyoming Counties, PA
 - Susquehanna River-1 – SRBC Docket No. 20080906
 - Susquehanna River-2 – SRBC Docket No. 20080923
 - Susquehanna River-3 – SRBC Docket No. 20080903
 - Susquehanna River-4 – SRBC Docket No. 20080907
 - Susquehanna River-5 – SRBC Docket No. 20080914

Public Water Suppliers:

- Towanda Municipal Authority (*previously approved*)
- Aqua Pennsylvania, Inc. - Susquehanna Division (*previously approved*)
- Canton Borough Authority (*previously approved*)
- Borough of Troy (*previously approved*)

CHIEF OIL & GAS LLC



Chief Oil & Gas LLC

Consumptive Water Use of up to 5.000 mgd

- Clearfield County, PA
 - Clearfield Creek (Boggs Township) *15% ADF Passby*
 - Pine Creek

Consumptive Water Use of up to 5.000 mgd—SRBC Docket No. 20080934

- Lycoming County, PA

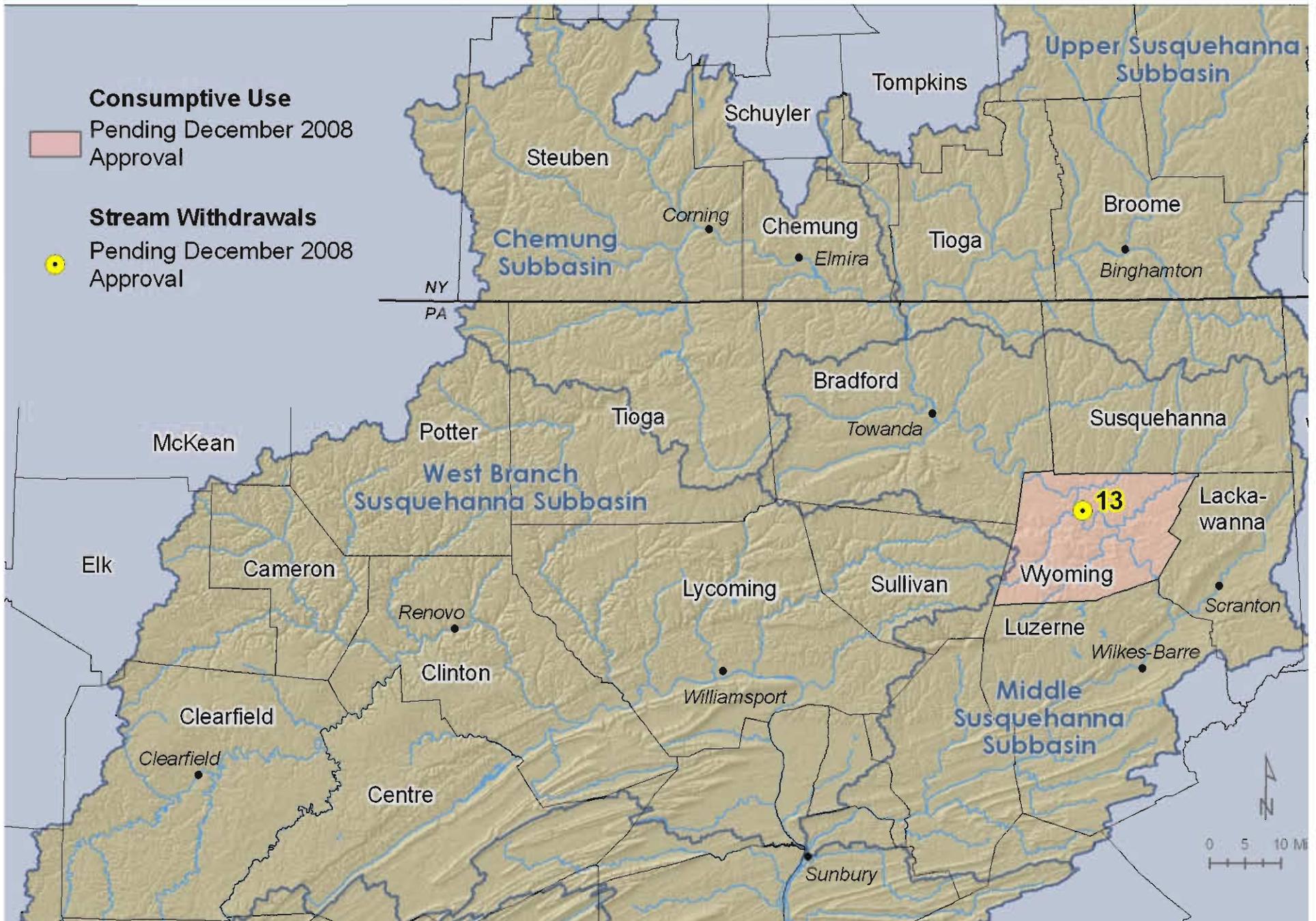
Consumptive Water Use of up to 5.000 mgd—SRBC Docket No. 20080911

- Bradford County, PA
 - Larrys Creek — SRBC Docket No. 20080936
 - Loyalsock Creek — SRBC Docket No. 20080939
 - Muncy Creek-1 — SRBC Docket No. 20080938
 - Muncy Creek-2 — SRBC Docket No. 20080935

Public Water Suppliers:

- BCI Municipal Authority
- Jersey Shore Joint Water Authority
- Williamsport Municipal Water Authority (*previously approved*)
- Borough of Montoursville (*previously approved*)
- Towanda Municipal Authority (*previously approved*)

CITRUS ENERGY

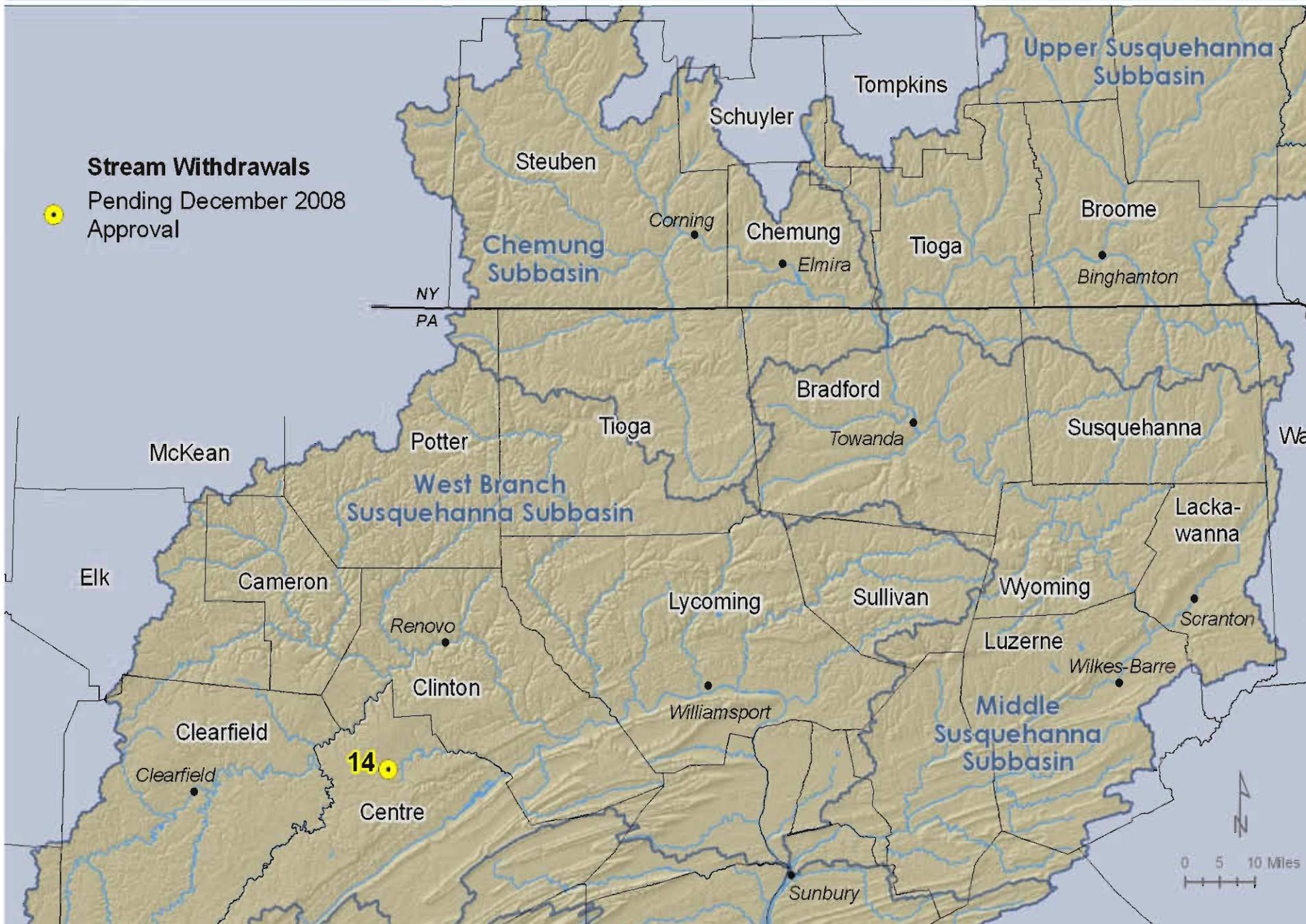


Citrus Energy

Consumptive Water Use of up to 5.000 mgd

- Wyoming County, PA
 - North Branch Susquehanna River (Washington Township)
 - *20% ADF Passby*

EXCO-NORTH COAST ENERGY, INC.

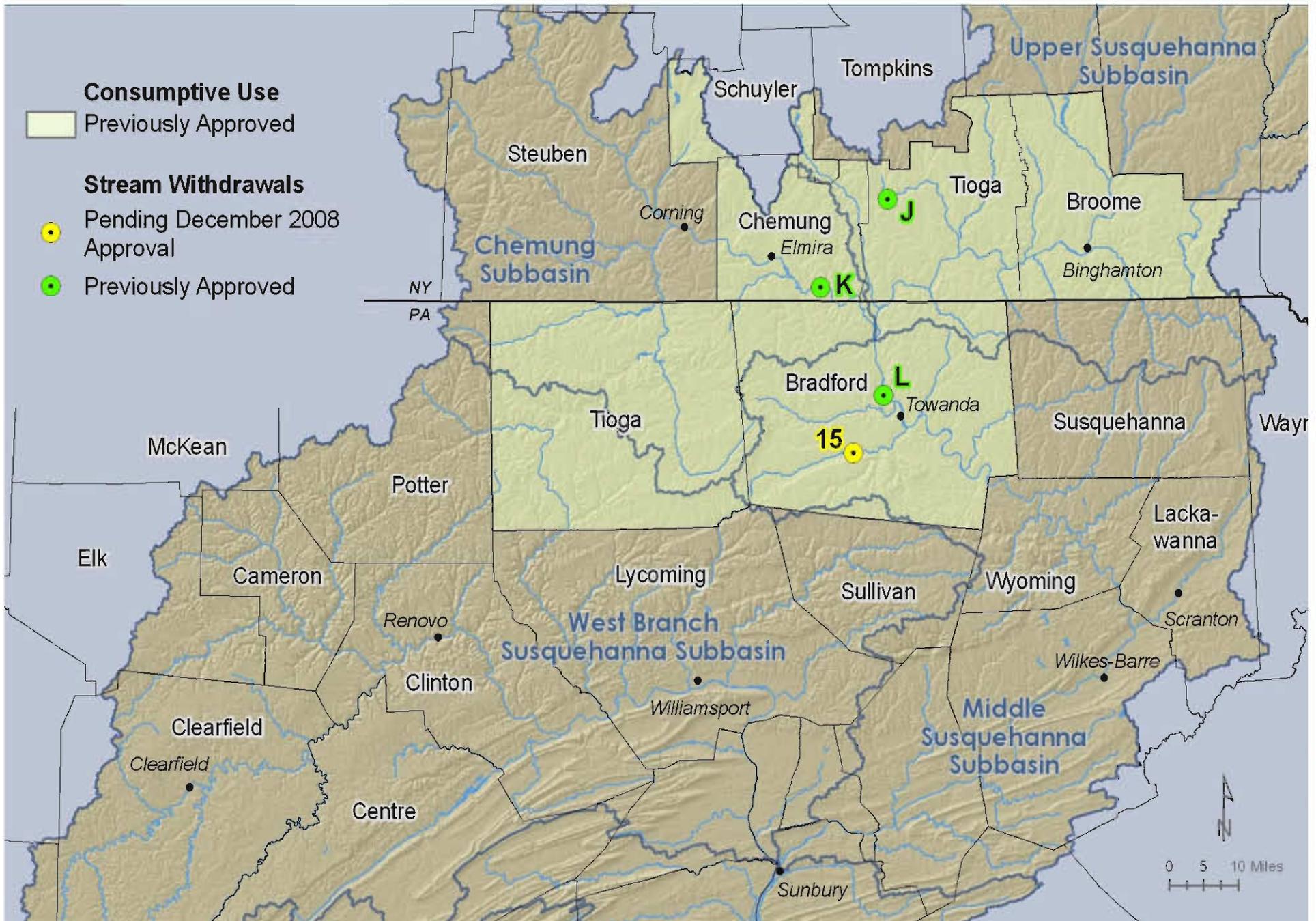


EXCO-North Coast Energy, Inc.

Surface Water Withdrawal of up to 0.300 mgd

- Unnamed Tributary to Sandy Run
 - *Q7-10 Passby*

FORTUNA ENERGY INC.

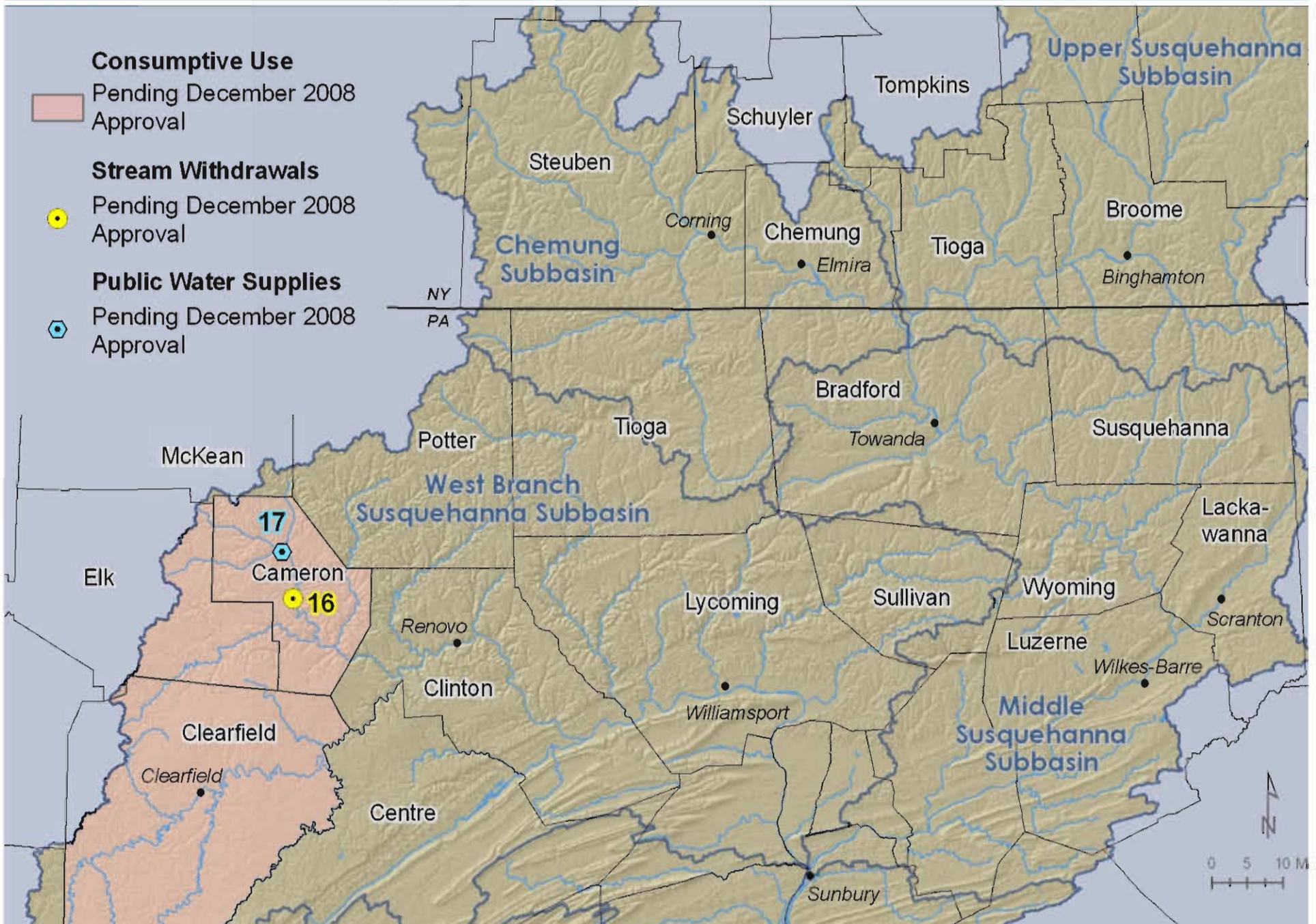


Fortuna Energy Inc.

Consumptive Water Use of up to 3.000 mgd—SRBC Docket No. 20080601

- Chemung, Schuyler, Tioga, and Broome Counties, NY, and Tioga and Bradford Counties, PA
 - Towanda Creek *20% ADF Passby*
 - Catatonk Creek — SRBC Docket No. 20080602
 - Chemung River at Chemung — SRBC Docket No. 20080605
 - Susquehanna River — SRBC Docket No. 20080909

J-W OPERATING COMPANY



J-W Operating Company

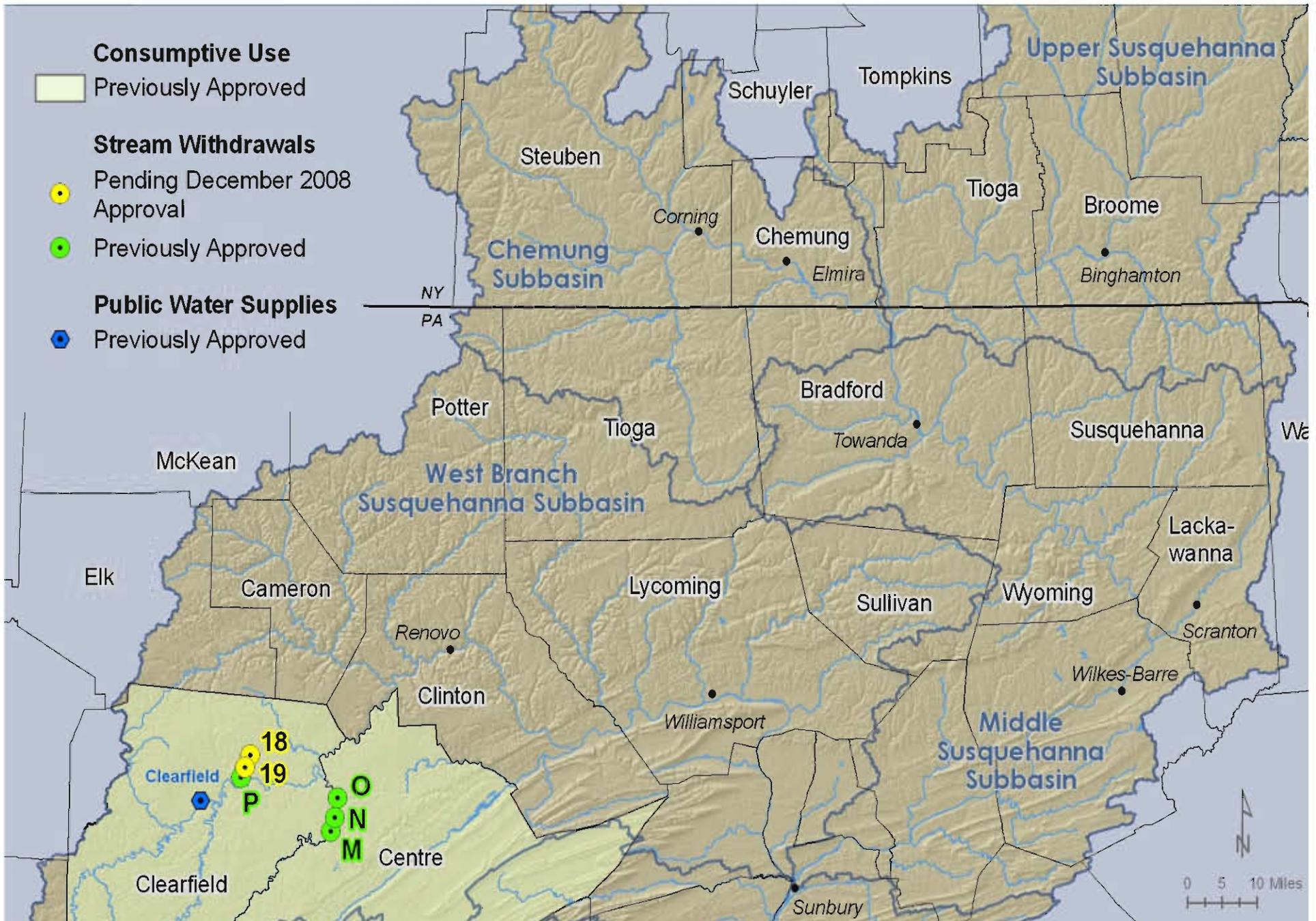
Consumptive Water Use of up to 4.500 mgd

- Cameron, Clearfield, and Elk Counties, PA
 - Driftwood Branch Sinnemahoning Creek (Lumber Township)
 - *20% ADF Passby*

Public Water Supplier:

- Emporium Water Company

REX ENERGY CORPORATION



Rex Energy Corporation

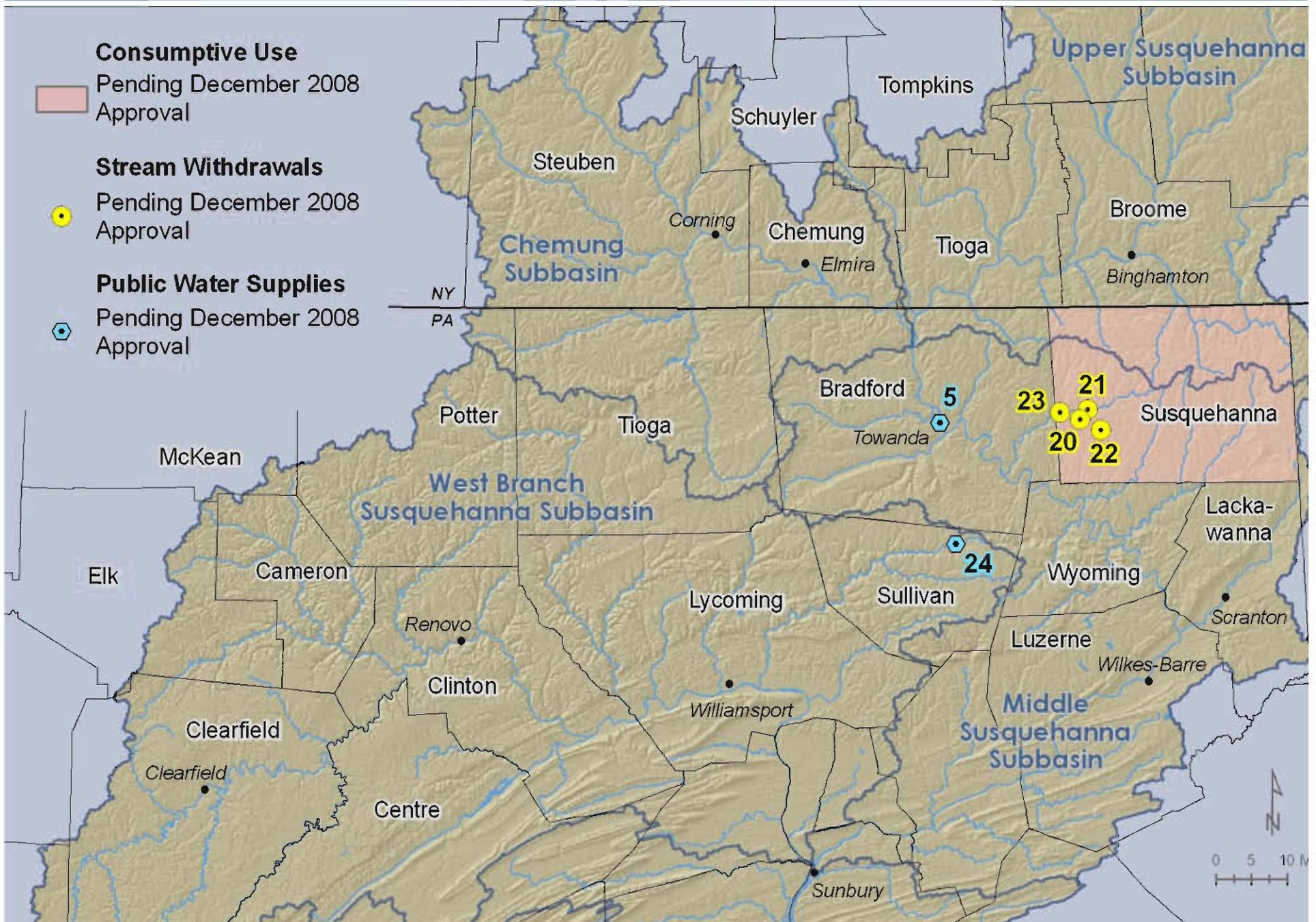
Consumptive Water Use of up to 5.000 mgd—SRBC Docket No. 20080941

- Centre and Clearfield Counties , PA
 - Upper Little Surveyor Run (Girard Township) *15% ADF Passby*
 - Lower Little Surveyor Run (Girard Township) *15% ADF Passby*
 - Moshannon Creek-1 — SRBC Docket No. 20080948
 - Moshannon Creek-2 — SRBC Docket No. 20080947
 - Moshannon Creek-3 — SRBC Docket No. 20080946
 - West Branch Susquehanna River — SRBC Docket No. 20080944

Public Water Supplier:

- Clearfield Municipal Authority (*previously approved*)

TURM OIL, INC.



Turm Oil, Inc.

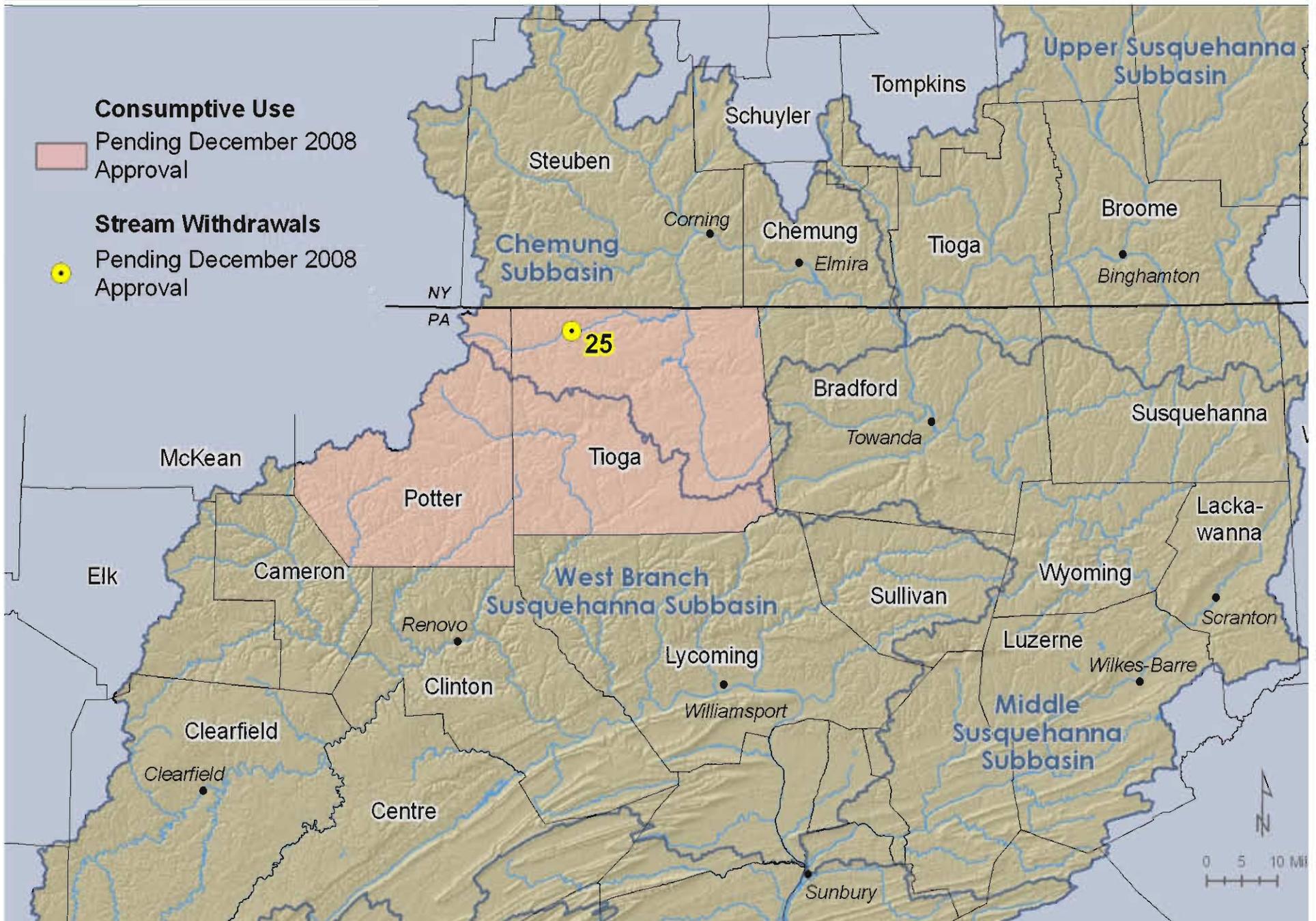
Consumptive Water Use of up to 5.000 mgd

- Susquehanna County, PA
 - Deer Lick Creek (Rush Township) *20% ADF Passby*
 - East Branch Wyalusing Creek (Rush Township) *20% ADF Passby*
 - Elk Lake Stream (Rush Township) *20% ADF Passby*
 - Main Branch Wyalusing Creek (Rush Township)

Public Water Suppliers:

- Towanda Municipal Authority
- Dushore Water Authority

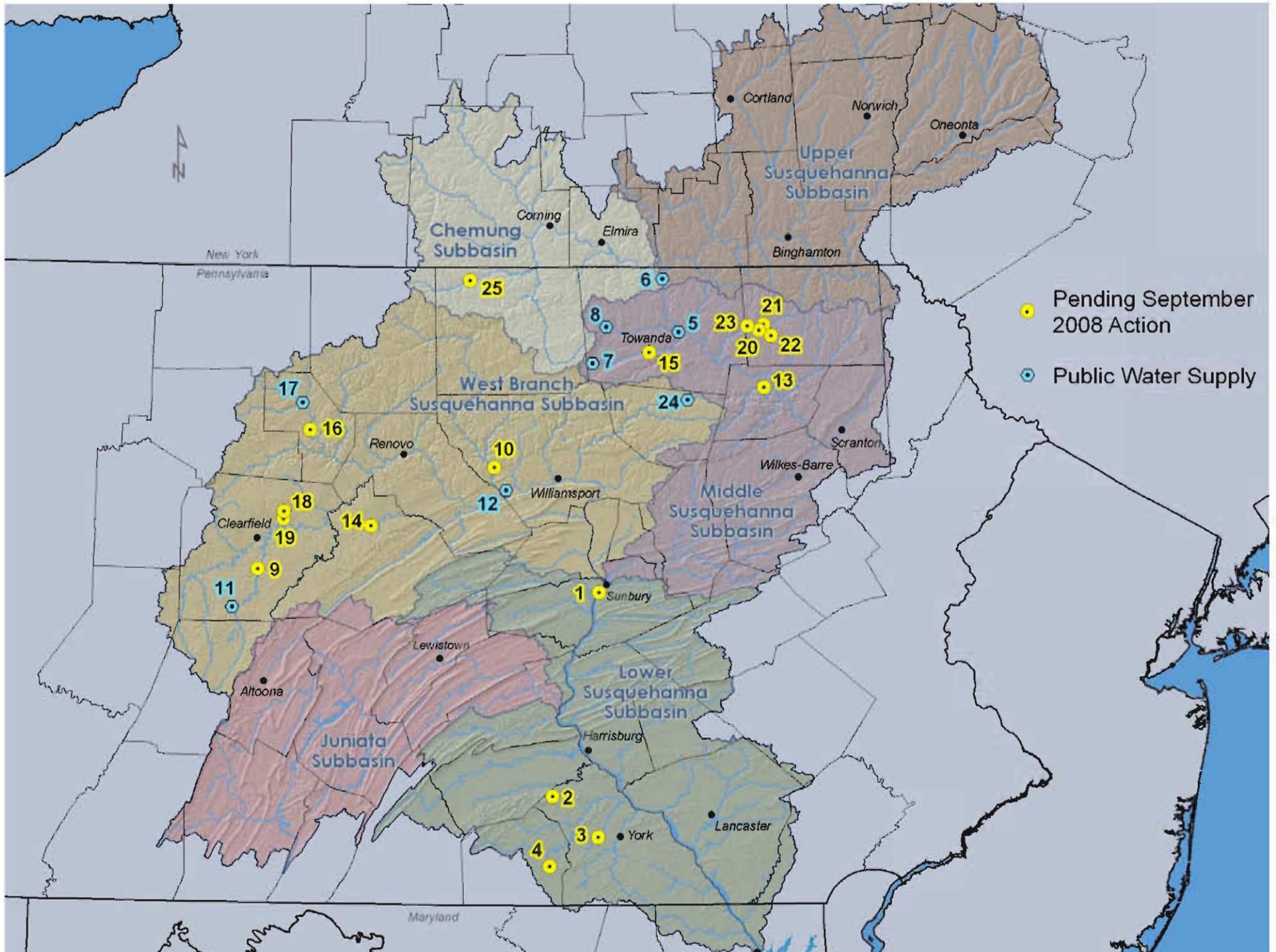
ULTRA RESOURCES, INC.



Ultra Resources, Inc.

Consumptive Water Use of up to 4.990 mgd

- Tioga and Potter Counties, PA
 - Cowanesque River (Deerfield Township) *20% ADF Passby*



Regulatory Program Actions

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Presented December 4, 2008

Bel Air, Maryland