TROUT PRODUCTION
Status of Trout Production

- Overview of Trout Culture
- Historic and Current Production
- Water Supplies
- PCB’s in Trout Culture
- Permit Issues
- Treatment Systems
Trout Spawning

Photoperiod manipulation: Light House Trout
Early Rainbows
Fall Browns and Brook Trout
Rearing
Feeding

~ 3 million pounds of feed annually
Predation & Bird Exclusion
Disease Issues
Stocking

• Fingerlings
  • Put-Grow-Take, Cooperative Nurseries
• 11” Adult Trout
• Trophy Trout
Production (1996-2007)

- **1996-2001:**
  - Avg 5.3 million catchables (9-10”)
  - 2.7 million pounds
- **Big Spring closure in 2001**
- **2001-06:**
  - Closed lower portion of Huntsdale raceways
  - Avg. 4.2 million catchables (9-10”)
  - 2.0 million pounds
- **Biomass limits**
- **Private contractor and USFWS trout**
- **2007 Bigger and Better**
  - 3.4 million catchables 11”
  - 2.0 million pounds
PFBC PRODUCTION TROUT

FISCAL YEAR


# STOCKED  # LBS

6,000,000  4,000,000  2,000,000  1,000,000  0
Adult Trout
Distribution Statistics (FY 06-07)

• ~ 3.5 million trout stocked
• 5,119 miles of streams stocked
• 8,500 acres of lakes stocked
• 314,453 miles driven by stocking trucks
  Equivalent to ~12.5 trips around the earth !!
TROUT PRODUCTION FY 06-07

Number of Trout
6,939,299

Pounds of Trout
2,228,851

- PFBC ADULT: 48%
- PGT FING: 2%
- COOP FING: 2%
- PRIVATE ADULT: 17%
- Other: 5%
ADULT TROUT
PRODUCTION BY HATCHERY
(FY 06-07)
Water Supplies
Water Quantity and Quality

- Development within watersheds
- Water sources are affected from distant areas
- Some hatcheries have seasonal fluctuations in temperature and quantity
- Influent water quality affects our effluent
- Pass-by requirements: increased responsibility to maintain creek flows and use less water in the hatcheries
PCB’s and Trout Production

• Commercial fish feeds may contain PCB’s
  – Within FDA limits for animal feeds
• Hatchery trout are sampled annually
  – Are within the 1 meal/week consumption limit
2003-2006 Annual PCB Monitoring in Hatchery Reared Trout

Mean PCB Concentrations (mg/kg)

Year

2003 2004 2005 2006

1 meal/month

1 meal/week

Upper Confidence Limit

Bellefonte Age-1
Bellefonte Age-2
Benner Spring
Corry
Huntsdale
Oswayo Age-1
Oswayo Age-2
Pleasant Gap
Reynoldsdale
Tylersville
Allegheny NFH
Lamar NFH
Huntsdale SFH

- Higher PCB concentration in lower raceway trout
- Closed the lower raceway series (2002)
- Hatchery renovations include by-passing hatchery water around the old lower raceway series.
Permit Issues

• NPDES Permits
• Past: basic ppm limits TSS, D.O., CBOD, etc.
  – Settling Ponds & Clarifiers
• Now: ppm limits and TMDL (pounds /year)
  – Microscreen filters & Recirculation Systems
• Noncompliance => reduced production
Typical Renovated Hatchery Water Flow

Water Source → Oxygenation → Rearing Units

Effluent Treatment

→ UV Disinfection

Water Samplers

Clarifiers/Storage Tanks → Microscreen Filters → Settling Ponds

Discharge
Hatchery Effluent Upgrades and Infrastructure Renovations

• Completed
  – Tylersville & Pleasant Gap

• Late Design Phase
  – Bellefonte, Huntsdale & Benner Spring

• Early Design Phase
  – Reynoldsdale
Trout Production Goals

- Meet NPDES effluent limits
- Produce 11 inch trout
- 1.9 million pounds = 3.3 million trout
- Reduce “surplus” fish
- Reduce flows and solids where possible
- Increase efficiency and reduce costs
Future Trout Production Issues

- Water quality and availability
- Increased effluent regulations
- Cost containment to produce trout
- Maintaining complex facilities
- Training Managers and Culturists
QUESTIONS?