Welcome to Morris Creek
MCWA Data

- Total Length: 5.1 miles
- Total Area: 7.53 sq. miles, 4,819 acres
- Elv. at Source: 1,800 feet
- Elv. at Mouth: 640 feet
- Avg. Drop: 228 ft./mi.
Legacy of Unregulated Mining
(AMD) Acid Mine Drainage
Low PH-High: Conductivity: Low DO
Heavy Iron and Aluminum Deposits
Passive AMD Treatment
Hydro Generator
Charge Controller

IN CLASSIC BATT
237.3V  50.0V
Watts 0040  0.8A
kWh 1.1  Float
Batteries 4-12 volt DC in series 48 vdc
Cooling Fans On Off Switch
Power in Use
Using Hydro and Solar to treat Acid Mine Drainage
Electrolysis treating AMD
June 29, 2012 Midwest to East Coast Derecho
Radar Imagery Composite Summary 18-04 UTC
~600 miles in 10 hours / Average Speed ~60 mph

Over 500 preliminary thunderstorm wind reports indicated by *
Peak wind gusts 80-100mph. Millions w/o power.

Summary Map by G. Carbin
NWS/Storm Prediction Center
FPL Cut 1,700 Utility Jobs

*AEP cut 2400 jobs; Buyout offer made to workers in W.Va. and 10 other states*

*Progress and Duke offered buyouts*

Customer Satisfaction with Electric Utility Companies Declines

*Jul. 17, 2012 | T&D World Magazine*

Restructuring vs. Reliability

*A Tale of Declining Standards*

By

*Whitfield Russell Sedina Eric*  
*Stephen Flanagan Geneva Graham Looker*
For electricity in US, rising costs but service in decline
Beginning in the 1950s, the reliability of the American electrical grid increased steadily until leveling off in the 1990s. “Despite the higher levels of spending over the past decade,” says the AP in its report, “service is getting no better, and evidence is mounting that it may be getting worse.”

Real Time Distribution Analysis
for Electric Utilities
Declining reliability – Declining generation reserves, growing customer demand, restructuring wholesale power markets, and an old, inadequate bulk Transmission system have resulted in declining reliability with the worst kind of outages-system wide outages sometimes spanning several states that may last for many hours or even days and weeks at a time.
Since 1995, outages have steadily increased as R&D steadily declined

By S. Massoud Amin

Posted 30 Dec 2010 | 13:53 GMT