StEPP FOUNDATION

StEPP Foundation

Strategic Environmental Project Pipeline

August 2006

Factors Inhibiting Use of SEPs

- **SEP's are perceived as more "costly"**
- **Defendants lack core competency to manage SEPs – perceived to be risky**
- **Settlement negotiators need viable projects**
- **Payment of a fine is "path of least resistance"**
- **Environmental Agencies may have higher use for their resources than developing, tracking and managing SEPs**
- **SEP negotiations and project scoping add time to an already lengthy settlement process**

StEPP FOUNDATION™

Even if Environmental Agencies Are Proactive About SEPs…

Adds time to an already lengthy negotiation process

- A viable project must be sourced.
- A project plan must be designed and completed.
- The $ commitment and project must be negotiated and legally bound.
- The allocated funds must be managed and accounted for.
- Project must be continually tracked and monitored.
- The environmental benefits must be quantified and reported.
- Project milestones must be tracked and monitored.
- Project completion must be verified, documented and communicated.

StEPP FOUNDATION™

StEPP Foundation Was Formed to Overcome These Hurdles

- **StEPP already has a database of projects.**
  - **Where an existing project doesn't meet nexus requirements, StEPP will do an RFP.**
- **StEPP's core competency is project management.**
- **StEPP serves as escrow agent for the funds, and allocates payments based on project milestones.**
- **StEPP monitors, tracks and accounts for each funding request.**
- **Quarterly and final reports and metrics are built into the contract.**

StEPP FOUNDATION™

Selection Criteria

- **Most significant measurable environmental and community benefit**
- **Capital investment vs. administrative overhead**
- **Ability to leverage funds through in-kind and/or other donations**
- **Public awareness and education opportunities**
- **Completion within 3 years**

StEPP FOUNDATION™

Project Examples – Completed

2003 - 2005

Aspen Ski Corp MicroHydro

- **Funding**
  - **Air Quality Violation**
- **Source of Project**
  - **RFP**
- **Description of Project**
  - **Renewable Energy Project using Single Nozzle Pelton Microturbine installed to take advantage of snowmelt runoff from April to August**
  - **First Ski Area Installation in US**

StEPP FOUNDATION™

Aspen Ski Corp MicroHydro (cont.)

- **Environmental Benefits**
  - **Generates between 200,000 and 300,000 kWh of electricity annually**
  - **Displaces approximately 500,000 lbs of CO2 emissions annually**
- **Other Benefits**
  - **High degree of "leverage" through partnering**
  - **High profile project; high degree of public education & awareness**

StEPP FOUNDATION™

BECC (Boulder Energy Conservation Center)

- **Funding**
  - **Air Quality Violation**
- **Source**
  - **Project identified through StEPP database**
- **Project Description**
  - **Retrofit Low Income Housing Neighborhood with Solar Powered Water Heating systems**
  - **14 systems installed**

BECC (Boulder Energy Conservation Center) – (cont.)

- **Environmental Benefits**
  - **1,076,000 lbs of CO2 displacement over 30 year lifecycle**
  - **7 lbs of SOX**
  - **1010 lbs of NOX**
  - **12 lbs of VOC**
  - **300 lbs of CO**
- **Other Benefits**
  - **High degree of public awareness through KCNC (CBS affiliate), Channel 51, and annual Denver Solar Homes Tour**
  - **Benefits accrue to low income audience**

StEPP FOUNDATION™

Brush School District

- **Funding**
  - **Air Quality Violation**
- **Source**
  - **Identified project through StEPP database**
- **Project Description**
  - **Agricultural Community in Eastern Colorado**
  - **Reseeded 10 acres of Kentucky Bluegrass playing field with Buffalo Grass hybrid**
- **Environmental Benefits**
  - **2,211,300 gallons of water saved annually**
  - **50,000 kWh of electricity saved annually**
  - **100,000 lbs of CO_2 saved annually**

StEPP FOUNDATION™

NEMPPA (Northeast MetroDenver Pollution Prevention Alliance)

- Funding
  - Air Quality Violation
- Source
  - RFP
- Project Description
  - Energy Efficiency program targeting small business in minority/low income area
    - <100 employees
  - Voluntary
  - Up to $3,000 in funding/business
  - 15 participating companies/20 implemented projects

StEPP FOUNDATION™

NEMPPA (cont.)

- Environmental Benefits (annual savings)
  - kWh: 588,400
  - Therms: 8,100
  - Co2: 1,488,000 lbs
  - Nox: 2,700 lbs
  - Sox: 4,800 lbs
- Other Benefits
  - Cost savings: $34,000/year
  - Funding and implementation: $105,000
  - Avg payback overall: 3 years
  - Avg payback with StEPP: < 2 Years
  - Xcel rebate: > 10%
  - Businesses contributed 50% of costs

StEPP FOUNDATION™

Project Examples-Current

2005-2006 (ongoing)

StEPP FOUNDATION™

GLO (Ground Level Ozone)

- **Funding**
  - **Air Quality Violation w/ Metro Area Nexus targeting VOC reduction**
- **Source**
  - **RFP**
- **Project Description**
  - **Project tied to “out of attainment” status of Denver GLO**
  - **7 Businesses/Government/Academic entities selected to participate with a total of 43 vehicles**
  - **Partnered with 2 for profit businesses**

StEPP FOUNDATION™

GLO Project (cont.)

- **Environmental Benefits (43 Vehicles – 5 year lifecycle)**
  - CO reduction – 688 tons
  - NOX reduction – 599 tons
  - THC reduction – 227 tons
  - CO2 reduction – 158 tons
  - CH4 reduction – 2572 tons

- **Other Benefits**
  - 1,400,000 gallons of petroleum fuel displacement
  - Funding total of $513,000
  - High degree of leverage
    - Cash matching - $434,000
    - In-kind matching - $50,000
  - Fuel maker on-site for campus deployment
  - High altitude performance testing
  - Education & awareness

StEPP FOUNDATION™

Arroyo Sombra

- **Funding**
  - **Air Quality – particulates**
- **Source**
  - **StEPP Foundation Database**
- **Project Description**
  - **Use of landscaping materials to control PM pollution, conserve water, and minimize soil erosion in Low Income Housing Community in Santa Fe**

Arroyo Sombra (cont.)

- Environmental Benefits
  - Reduced erosion
  - Improved drainage
  - Dust mitigation
  - Prevention of water pollution
  - Water conservation
- Expected Results (20 year lifecycle)
  - 25.8 tons of PM/dust reduction
  - 364 lbs reduced soil erosion
- Other Benefits
  - Increased neighborhood safety
  - Enhanced neighborhood aesthetics

StEPP FOUNDATION™

Arroyo Sombra (cont.)
Project Leveraging

• **Original Fine**	**$25,000**
• Retail cost of materials and delivery:	$42,823
• Direct Donated SFCHT Match:	$27,807
• StEPP Donated labor:	$1,710
• Total Project Value:	$72,340
• **Direct Project Leverage:**	**$47,330 or 89%!**
• Indirect SFCHT Match • (Energy Star and Solar Housing Dev)	$1.8 Million
• **Indirect Project Leverage:**	**$1,847,330**

Project Examples - Future

2006-2007

StEPP FOUNDATION™

Posada

- **Funding**
  - **Air Quality**
- **Source**
  - **RFP**
- **Project Description**
  - **Building 30 houses and a Community Center to serve the large migrant farm worker population in Pueblo, Colorado**
  - **Drive EE with PV systems and high RF factor insulation**

Posada (cont.)

- **Environmental Benefits (annual savings)**
  - **NOX – 278 lbs.**
  - **SO2 – 178 lbs.**
  - **CO2 – 185,868 lbs.**
- **Other Benefits**
  - **$253,000 funding, 82% of which is capital**
  - **Over $7,000,000 into housing development, local economy**

StEPP FOUNDATION™

StEPP SEP Statistics

- **Over 1500 Projects in the Pipeline representing all 50 States and EPA Regions**
- **Over $2.7 Million to date under StEPP management**
- **27 Projects in place in 16 cities and counties**

StEPP FOUNDATION™

Benefits of Working w/ StEPP

- **“Cradle to grave” SEP management**
- **Project database with sophisticated search engine and data mining technology**
- **Expert RFP capability and objective selection**
- **Expert project management and reporting**
- **Non-profit 501(c)3 status reduces political and financial risk**
- **Aggregation and leveraging of funds**
- **Media and public awareness/education campaigns**

StEPP FOUNDATION™

StEPP Foundation Information

- **Website: www.steppfoundation.org**
- **Carolyn McIntosh, Chair – 303-894-6127**
- **Frank Stewart, Vice Chair – 303-596-3010**
- **Bruce Dines, Executive Director – 303-277-0932, 303-523-8363**
- **References:**
  - **Jill Cooper, CDPHE, 303-692-2007**
  - **Multiple others upon request**