Best Management Practices
This breakout session focused on management practices that support sustainability in use of materials, and other resources. It will also explored training and other programs that are used in support of preparing operations and administrators for winter maintenance operations.
Best Management Practices
Major Topic Areas

- Materials - Sustainability
- Equipment
- Human Element
- Operations
- Institutional
- Technology
Best Management Practices
Innovative Approaches

- App based snow plans
  - Comprehensive measurement process for plans
  - Having ability to simulate winter to evaluate cost of change and plan response
Best Management Practices
Innovative Approaches

- Identification of salt vulnerable areas
- Contractor’s approach to training
Best Management Practices
Action Items

- Extend simulations to predict mobility and safety options
- Account for other salt sources into salt vulnerable areas
- Tools to look for grit vulnerable areas
- Methods to measure training effectiveness, especially with KPI’s
Best Management Practices
Action Items

- Investigate variable application rates for warmer storms
- Methods to measure training effectiveness, use of KPI’s
- Classify snow on roads, how well it plows & responds to salt
Best Management Practices

Working Notes from Breakout
B. M. P. s
+ MATERIALS
(Salt, Sand, MgCl, CaCl2, Non-Chlorides)
(Liquids v. Solids)
+ EQUIPMENT
(Delivery of product)
(Efficiency of plowing)
(Calibration)
+ TECHNOLOGY
(Op. assist for equip.)
(MDSS)
(Connected Vehicles)
(Measurement of materials)
(Identifying salt sensitive areas)
(Reliability issues & maint.)
+ TOTAL TECHNOLOGY
  COST
  But Real-Time info to customers, good & accurate.
  Risk management

+ SUSTAINABILITY
- Public Expectations
- Education

+ INSTITUTIONAL
  (Sharing BMPs)
  (Change management)
  (Communicating the Objectives)
  (Measurement)
  (Plans & Policies)
+ Human Element
  - Training
  - Cognitive Overload
  - Role Issues

+ Operations
  - Timing, Information needs, application rates

- Extend simulation
- To predict mobility
- Safety outcomes

- Identify Salt vulnerable areas
- Identify all salt inputs (roads, parking lots, etc.) to salt sensitive areas, in useful time frame

Gap 1:
SAND
- Measuring training effectiveness
- Hands-on tactile rather than classroom
- Learn from private-selected
- Tie training to key performance indicators
- Measure effectiveness by improvements in KPIs
TRAINING
- CANNOT BE ONE TIME
- SHOULD BE UNRELenting
- NOT JUST NEW KNOWLEDGE
  BUT NEW HABITS
- RECRUITMENT
- GET JOB REQUIREMENTS
  RIGHT
- ANTI-TECH

INNOVATIVE APPROACHES
- APP. BASED SNOW PLAN
  DEVELOPMENT
- DEVELOP A COMPREHENSIVE
  MEASUREMENT PROCESS IN
  CONJUNCTION WITH SNOW PLAN
- USE OF A SIMULATION
  TOOL TO INVESTIGATE
  SNOW PLAN CHANGES
  WHAT-IF SCENARIOS
  INCLUDE ENV. COSTS

MEASURING TRAINING
ACTION ITEMS
(ADD LOS, FRICION, OTHER ISSUES)
INVESTIGATE VARIABLE
(DRIVER BEHAVIOR)
APPLICATION RATES IN
WARM STORMS (OTHER THINGS)
- SEE GAPS ON INNOV. APP. SHEET
- INVESTIGATE METHODS TO
MEASURE TRAINING EFFECTIVENESS, ESP. USE OF KPIs.
- CLASSIFY SNOW ON ROAD
FROM VIEWPOINT OF WINTER
OPS.