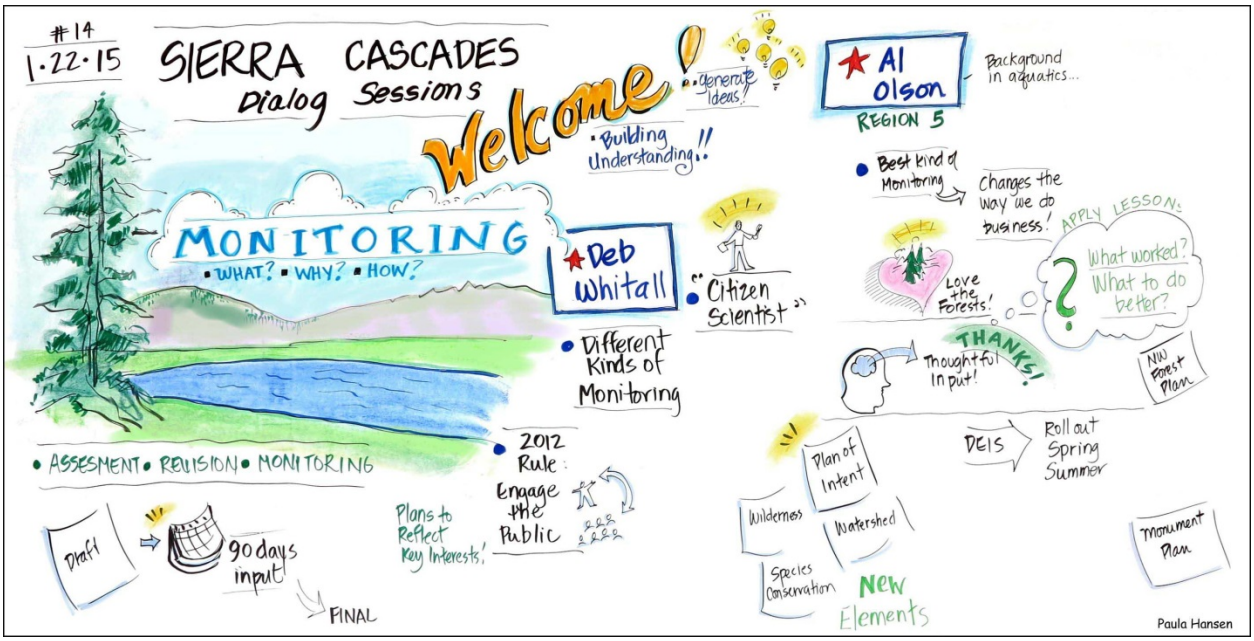
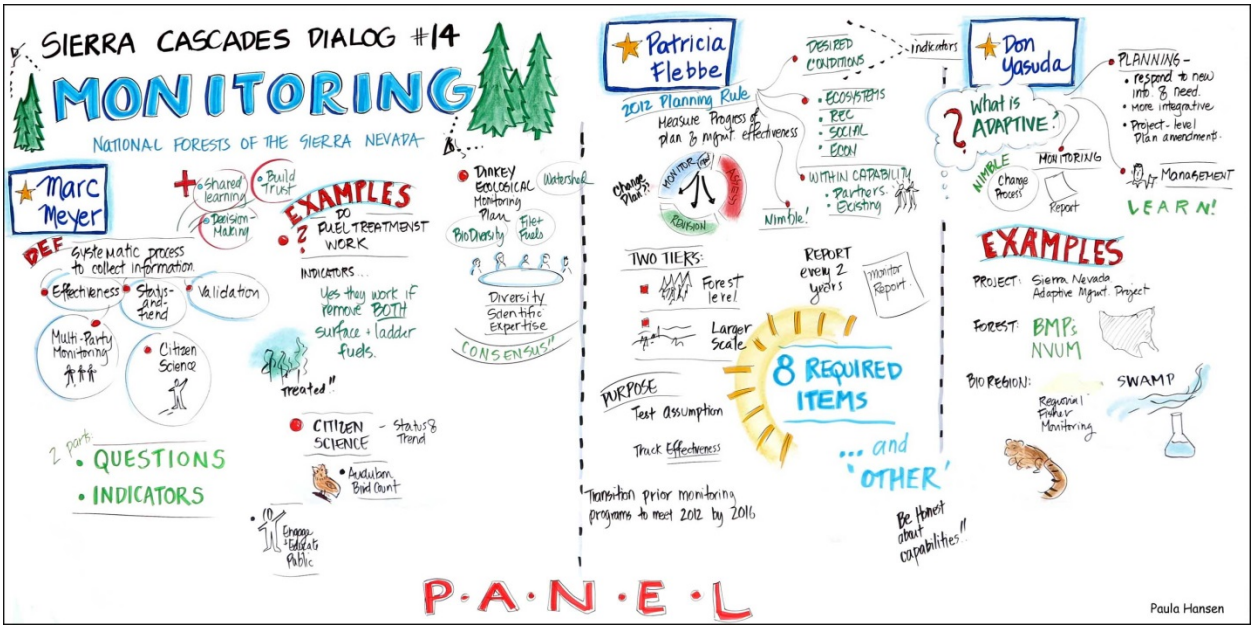
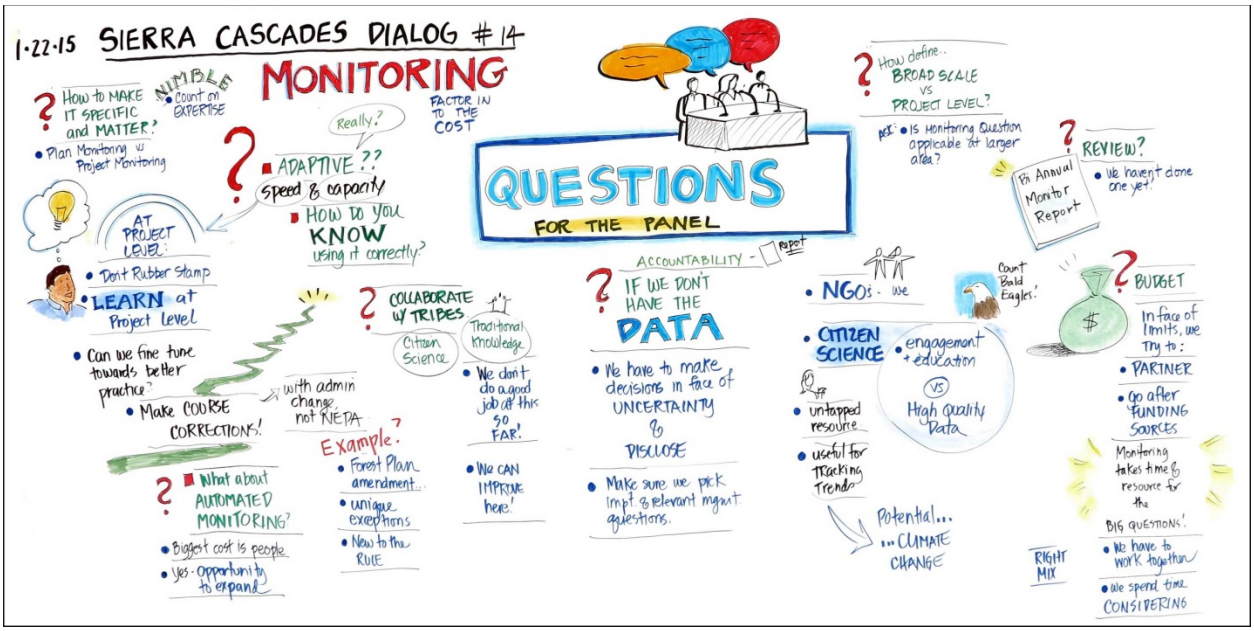
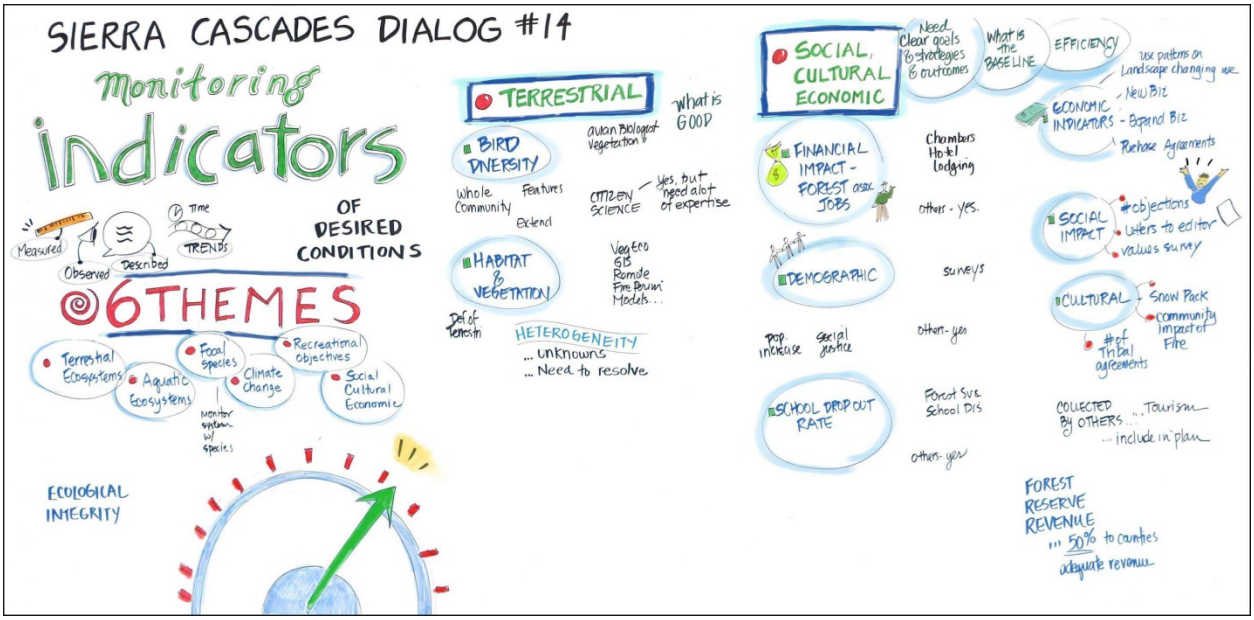
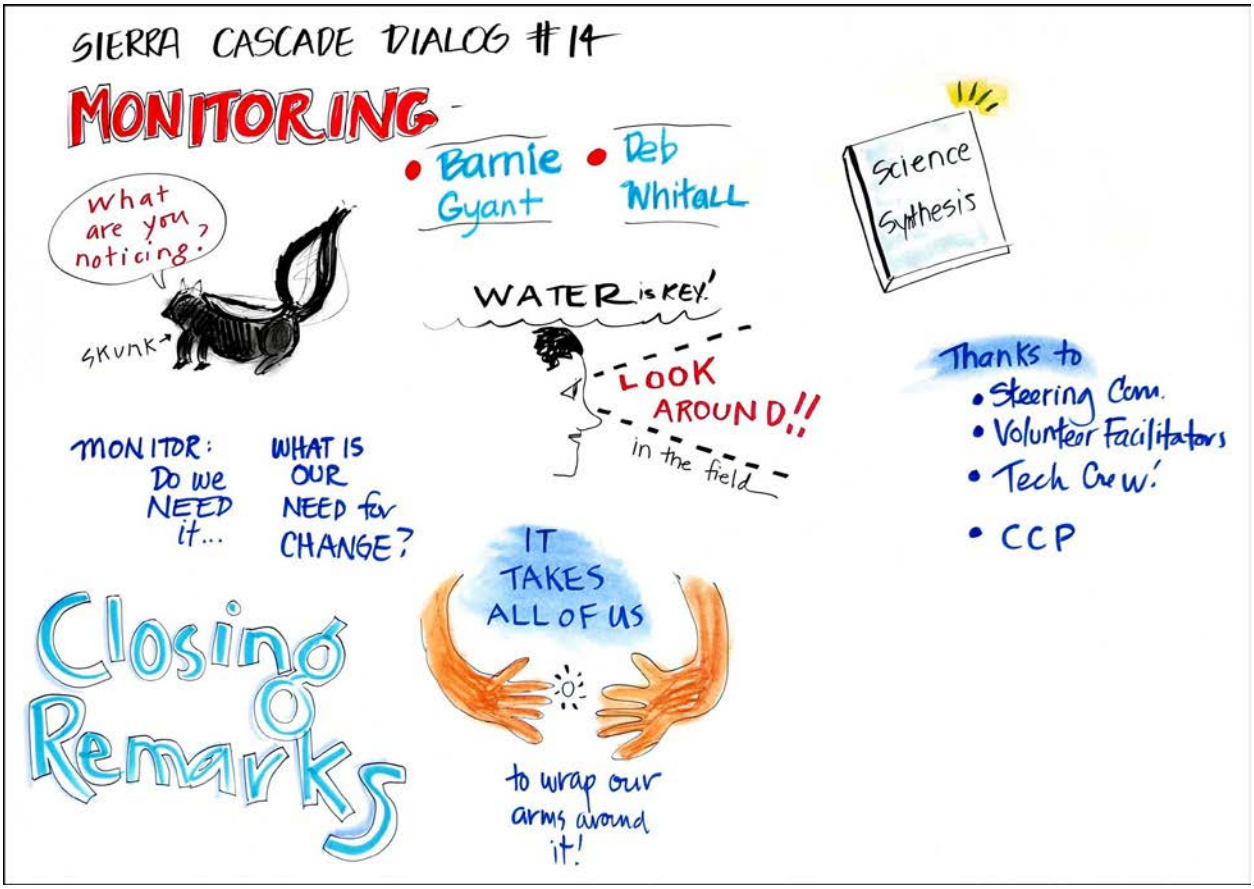

#14
1·22·15
SIERRA CASCADES Dialog Sessions
Welcome!
• Generate Ideas!
• Building Understanding!!
MONITORING
• WHAT? • WHY? • HOW?
• ASSESMENT • REVISION • MONITORING
Deb Whitall
"Citizen Scientist"
• Different Kinds of Monitoring
• 2012 Rule: Engage the Public
Plans to Reflect Key Interests!
draft
90 days input
FINAL
Al Olson
REGION 5
Background in aquatics...
• Best kind of Monitoring
Changes the way we do business!
APPLY LESSONS:
What worked? What to do better?
Love the Forests!
THANKS!
Thoughtful input!
NW Forest Plan
DEIS
Roll out Spring Summer
Plan of Intent
Wilderness
Watershed
Species Conservation
New Elements
Monument Plan
Paula Hansen


SIERRA CASCADES DIALOG #14
MONITORING
NATIONAL FORESTS OF THE SIERRA NEVADA
Marc Meyer
DEF: Systematic process to collect information
• Effectiveness • Study-and-Trend • Validation
• Multi-Party Monitoring
• Citizen Science
2 parts:
• QUESTIONS
• INDICATORS
+ Shared learning • Build Trust • Decision-Making
EXAMPLES
DO FUEL TREATMENTS WORK
INDICATORS...
Use they work if remove BOTH surface + ladder fuels.
"treated"
CITIZEN SCIENCE - Status & Trend
• Audubon Bird Count
Engage + Educate Public
• Dinkey Ecological Monitoring Plan
Watershed
BioDiversity
Fiber Fuels
Diversity Scientific Expertise
CONSENSUS!!
Patricia Flebbe
2012 Planning Rule
Measure Progress of plan & mgmt effectiveness
Change Plan?
MONITOR
ASSESS
REVISION
Nimble!
DESIRED CONDITIONS
• ECOSYSTEMS
• REC
• SOCIAL
• ECON
WITHIN CAPABILITY
• Partners
• Existing
TWO TIERS:
Forest level
Larger Scale
REPORT every 2 years
Monitor Report
8 REQUIRED ITEMS
... and 'OTHER'
PURPOSE
Test Assumption
Track Effectiveness
Transition prior monitoring programs to meet 2012 by 2016
Be Honest about capabilities!!
Indicators
Don Yasuda
What is ADAPTIVE?
NIMBLE
Change Process
Report
MONITORING
• PLANNING -
• respond to new info & need.
• more integrative.
• Project-level Plan amendments.
MANAGEMENT
LEARN!
EXAMPLES
PROJECT: Sierra Nevada Adaptive Mgmt. Project
FOREST: BMPs NVUM
BIO REGION:
Regional Fisher Monitoring
SWAMP
P·A·N·E·L
Paula Hansen


1·22·15 SIERRA CASCADES DIALOG #14
MONITORING
QUESTIONS
FOR THE PANEL
How to MAKE IT SPECIFIC and MATTER?
Plan Monitoring w Project Monitoring
NIMBLE
Count on EXPERTISE
FACTOR IN TO THE COST
ADAPTIVE??
Really?
Speed & capacity
HOW DO YOU KNOW using it correctly?
AT PROJECT LEVEL:
Don't Rubber Stamp
LEARN at Project Level
Can we fine tune towards better practice?
Make COURSE CORRECTIONS!
with admin change not NEPA
COLLABORATE w TRIBES
Citizen Science
Traditional Knowledge
We don't do a good job of this so FAR!
We CAN IMPROVE here!
Example?
Forest Plan amendment
unique exceptions
New to the RULE
What about AUTOMATED MONITORING?
Biggest cost is people
Yes - Opportunity to expand
IF WE DON'T HAVE THE DATA
ACCOUNTABILITY - report
We have to make decisions in face of UNCERTAINTY & DISCLOSE
Make sure we pick Impt & relevant mgmt questions.
How define.. BROAD SCALE vs PROJECT LEVEL?
ask: Is monitoring question applicable at larger area?
REVIEW?
1st Annual Monitor Report
We haven't done one yet!
NGOs - we
Count Bald Eagles!
CITIZEN SCIENCE
engagement + education
vs
High quality Data
untapped resource
useful for tracking trends
Potential... ... CLIMATE CHANGE
BUDGET
In face of limits, we try to:
PARTNER
Go after FUNDING SOURCES
Monitoring takes time & resource for the BIG QUESTIONS!
We have to work together
We spend time CONSIDERING
RIGHT MIX


SIERRA CASCADES DIALOG #14
Monitoring indicators
OF DESIRED CONDITIONS
Measured
Observed
Described
By Time
TRENDS
6 THEMES
Terrestrial Ecosystems
Aquatic Ecosystems
Focal Species
Climate Change
Recreational objectives
Social Cultural Economic
monitor system w/ species
ECOLOGICAL INTEGRITY
TERRESTRIAL
What is GOOD
BIRD DIVERSITY
avian Biological Vegetation
Whole Community
Features
Extend
CITIZEN SCIENCE
yes, but need alot of expertise
HABITAT & VEGETATION
Veg Eco
GIS
Remote
Fire Basin Models...
Def of Terrestrial
HETEROGENEITY
... unknowns
... Need to resolve
SOCIAL, CULTURAL ECONOMIC
Need Clear goals & strategies & outcomes
What is the BASE LINE
EFFICIENCY
Use patterns on Landscape changing use
ECONOMIC INDICATORS
New Biz
Expand Biz
Purchase Agreements
FINANCIAL IMPACT - FOREST assc. JOBS
Chambers Hotel Lodging
others - yes.
DEMOGRAPHIC
surveys
pop increase
social justice
others - yes
SOCIAL IMPACT
#objections
Letters to editor
values survey
CULTURAL
Snow Pack
community impact of Fire
#of Tribal agreements
SCHOOL DROP OUT RATE
Forest Svc School Dis
others - yes
COLLECTED BY OTHERS ... Tourism ... include in plan
FOREST RESERVE REVENUE
... 50% to counties
adequate revenue

SIERRA CASCADE DIALOG #14
INDICATORS (cont.)
AQUATIC
WATER QUALITY + QUANTITY
PHYSICAL HABITAT & HYDRAULIC CONNECTIVITY
recreation aesthetics
VEGETATION
water table
Riparian shading
Stream stability
PRICELESS
aerial Photos.
YES to PARTNERING agencies
MACRO INVERTABRATES
Need expertise
pollution
disturbances
RECREATION
# of DAYS FACILITIES AT or EXCEED CAPACITY
Habitat Satisfaction
VISITOR SAT. w/ PRIMITIVE EXP
assess use wilderness
YOUTH ACLESS from URBAN areas.
self-reliance
diversity of users
social justice
health
public transit?
what's changing
ECONOMIC DATA from GATEWAY COMMUNITIES
YES for Partners, NGOs
CAMPSITE CONDITIONS
Managing well?
surveys
PERMIT USE
Changes?
USE PATTERN
- allowed & not allowed
CONNECTION to NATURE
volunteerism
FOCUS SPECIES
Ecological Integrity!
Black Back WOODPECKER
Fire
$100K/yr
outside Partner OK
- GUILDS -
- Birds -
- Meadow Obligates
Meadow Health
BEES & BUTTERFLIES
invertabrates
• avail of habitat
• population
SUMMARY POINTS
• Good Mgmt Questions precede Indicator
• Be Strategic!
• Lots of Opp. for Multi-Party + Citizen Science
• Scale Matters
• Ecological Indicators can do Double Duty!
• Indicators + Info be Accessible!
NEED PLATFORM to SHARE
CLIMATE CHANGE
VEG + ANIMAL SPECIES
Easier Decisions
Habitat Req.
communities - Need volunteer coordination
SNOW PACK & WATER LEVELS
DISTURBANCE
movement
fire
migration
insect quantity
LOOK for Desired Function
LOOK BioRegionally
carbon sequestration
Remote Sensing
MEADOWS
Citizen Science
Volunteer into gathering...
Need better Desired Conditions
Teaseout effect of GRAZING
COMMENTS:
• What are we going to be with the data?
• Funding to make it get done!
• Comprehensive CITIZEN SCIENTIST Policy
• Volunteers need to be TRAINED & MANAGED
• Coordinate w/ Local Communities
• Partner Groups
• Need air + water temp. Monitoring
MORE WILDERNESS DATA
WILDERNESS ISSUE!!
ACCESS...
How do we bridge gap?
• What are the critical measures that are STRATEGIC
• Natural Forest vs Managed Forest
What is our reference condition


SIERRA CASCADE DIALOG #14
MONITORING
• Barnie Gyant
• Deb Whitall
Science Synthesis
what are you noticing?
SKUNK
WATER is KEY!
LOOK AROUND!!
in the field
Thanks to
• Steering Com.
• Volunteer Facilitators
• Tech Crew!
• CCP
MONITOR: Do we NEED it...
WHAT IS OUR NEED for CHANGE?
Closing Remarks
IT TAKES ALL OF US
to wrap our arms around it!