PRINCIPLES

Flip Chart 1:

- Schmidt descriptions - restoration"
- Ecosystem integrity framework
  - "protect, mitigate, improve values"
  - with some deviations
    * Food base * Sediment
    * hydrology * Others
    * Riparian habitat

- not pre-dam- rather RNV given existence of dam and other changes to the system (non-native introduction, etc.)

Flip Chart 2: (Principles, pg 2)

- Riparian habitat is a deviation
  - among several others
- Our choices limited by GCPA and other documents
- We (small group) seem to like new riparian aquatic and marsh environment - conflict w/framework?
- Small group presentations may expand and clarify the framework and deviations
- Deviations may mean conflicting goals/objectives.

Flip Chart 3: Goal 1 (Foodbase)

- targets vulnerable to being wrong because conditions change under different flow regimes
- unclear whether the sampling sites are representative of the river as a whole
- we don't know if 96-97 are the correct targets - needs explanatory targets
- Data suggests 96-97 were highest numbers we've seen - that's why it was used

Flip Chart 4: Goal 1 (Foodbase) continued

- why just cobbles and pools - not backwaters, etc.
- Shannon felt these were the important ones

Goal 2 (Native Fish)

- consistency w/ Upper Basin recovery goals
- MO 2.4 definition of spawning aggregation from B.O. (HBC)
- 2 alternatives for 2.6
- MO 2.6 how measure predation? Stomach content analysis, in part

Flip Chart 5: Goal 5 (Trout)

- MO 4.1 Don't know if 250,000 is the correct upper limit (leakage, health)
- MO 4.1 Electrofishing is for Lees Ferry only

Flip Chart 6: Goal 7 (KAS)

- MO25 Why changed to "do not impact?"
  - unclear what "maintain" means -
    "do not impact" seen as a clarification
- MO25 "Current" is level at <70K - those are the data we have

Flip Chart 7: Goal 8 (SWWF)

- This is a deviation - in view of Endangered Species issues.

Flip Chart 8: Goal 9 (Riparian)

- How often would marshes be measured? Don't know yet - would work w/GCMRC
- MO29 Non-native as % of total - in any given measurement or monitoring or of 10-year avg. - TBD
- MO30 - Is abundance, distribution and area, abundance?
- MO30 - should element be NHWZ vegetation?
- How distinguish between NHWZ and sand beach?
- NHWZ more stable, more woody, but same place

Flip Chart 9: Goal 12 (Cultural)

- MO41 - Questions on APE & 100%
- MO45 - new attribute
  - Increased understanding of the past and ongoing interaction of humans with the CRE

Flip Chart 10: Goal 6 (Sediment)

- Correction to new MO22: eddies up to ~~power plant capacity~~ 25,000 cfs
- Correction to new MO23: shorelines between ~~power plant capacity~~ 25,000 cfs. . .
- 21A activity based on other purposes may negatively impact trout habitat in GLCA
- PEP recommended attention to coarse sediment

Flip Chart 11: Goal 10 (Recreation)

- MO36 - Include ecosystem capacity to handle recreation impacts

Flip Chart 11: Goal 11 (Hydropower)

- What impact do financial criteria have on flows?
- How assess impact on ecosystem goals?
- MO was "maintain or increase"
  - is it now only "increase"?
  - there was no explicit dropping of "maintain"
- Financial exception criteria refer to only purchases
- Time frame by WAPA and notification TBD w/AMWG

Flip Chart 12: Goal 11 (Hydropower cont.)

- Financial criteria important in dry years where purchases otherwise would be required
- These ideas are subjugated to ecosystem goals.
- Would financial criteria involve changes to ROD? - Don't know
- Concern of impact on resources - needs guidelines developed far in advance
- Would this mean more exceedances?
- Burden of proof is on WAPA to demonstrate no negative impact.

Flip Chart 13: Goal 13 (AMP)

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BIG ISSUES

Flip Chart 1:

1. Some MOs are end, some are means: MOs and targets should be ends
   MO = desired future condition
   Keep this in mind

2. Targets should be ranges
   Concurrence - keep this in mind

Flip Chart 2:

The first activities in pursuit of this goal will be to gather data needed for a feasibility study (add to comments column)

3. Recovery goals: our goals shouldn't interfere with ability to down list or delist
   - get involved in Upper Basin recovery process
   - concern about reintroduction of extirpated species
   - Activities for the first 5 years of this plan (2001-2006) is to gather data needed for a feasibility study.

4. Financial exception criteria -
   address at the goal

Flip Chart 3:

5. NHWZ Vegetation: recreation vs. vegetation trade-off
   Concurrence: no conflict

6. Trout vs. native
   - Issue Paper 2 on this issue.
     There are a lot of unanswered questions on this iteration - and food base. Keep in mind as we address MOS

Flip Chart 4:

7. OHWZ and sand beach vs. NHWZ and marshes: natural pattern and process vs. naturalized
   - BHBFs to occasionally maintain OHWZ, letting succession replace NHWZ & marsh and some management actions to replace non-natives with willow

8. Targets for listed species that cannot be met, and agencies that have to meet the law

Flip Chart 5:

9. How does "maintain" fit in with Principle 6 "return to natural RNV"
10. How and when do we address MOs that conflict?

Flip Chart 6:

11. How does preservation of culturally important species fit with traditionally imp. Species?

DISCUSSION OF GOALS

MO24
Monitoring - ok

FLIP CHARTS - December 8, 2000

Flip Chart 1:

- MO25 - as amended or
  to be discussed
  2 new MOs to be drafted by Bob Winfree on other KAS habitat (25)

- New MO/Goal 9
  Maintain spring/wetland habitat occupied by rare and endemic species at (some stage level) in CRE below GCD (IN) (IN)

Flip Chart 2:

MO on other KAS Habitat –> NO CONSENSUS
- MO or monitoring
- Do not impact spring and wetland habitat occupied by KAS in Keyhole, Deer Creek, Elves Chasm. IN/IN
  Comment: to protect human impact . . .
  - high-use recreation areas
  - outside CRE
  - possible consultation issue
  - Expert Panel doesn't support
  - ESA/translocation important

Flip Chart 3:

MO27
- Lake levels outside our control
- "Lake Mead water levels are an important factor but are outside the control of the AMP."
- Goal 8 deleted, MO 27 moved to Goal 9

Flip Chart 4:

a) Attribute –> Patch number and distribution
Target = # of miles/reach ± X \
# of patches/reach ± X / **not** decided
Target = IN

MO32 - Add to narrative that sand beaches are important
- Sand beaches - part of biotic community - MO should be retained
- Avoid competing MOs - if we can accomplish it in one MO, would be good.
- Small group couldn't develop a target

Flip Chart 5:

MO34

- Dist: Target: No new non-native species. Invasive non-native species cover ≤10% of total riparian area.
- Composition: range to be determined

Flip Chart 6:

MO40

- Increase/maintain marketable capacity and energy at GCD constrained by ROD. IN / IN Goal 11: Maintain capacity and energy generation and increase where feasible and advisable within the framework of the GCD AMP.
- Make 40E and 40D INs under this MO.

Flip Chart 7:

MO40A - Maintain existing emergency criteria the WAPA system, constrained by ROD. IN/IN Current = Target

Flip Chart 8:

Flip Chart 9:

MO40 B - maintain emergency criteria for WSCC constrained by ROD

Current = target

Flip Chart 10:

MO40C - Maintain regulation for Western Area Lower Colorado (WALC) and WACM (Western Area Colorado Montrose) as constrined by the ROD

Flip Chart 11:

MO40D - Add financial criteria for WAPA system
Initial target: (40)E0 studies including feasibility, , advisability, impacts on other resources - depends on impacts being nil or acceptable, and consider need for ROD change and NEPA compliance.

- concern about how studies will be funded.
  A - some parts already funded through AMP - might be able to get WAPA to pay
- Would this make a lot of $?
  - don't know how much

Flip Chart 12:

MO40E - Add regulation for other systems.
Initial Target: studies including feasibility, , advisability, impacts on other resources - depends on impacts being nil or acceptable, and consider need for ROD change and NEPA compliance

- Prefer this to be IN, not an MO
- Des. future condition - cost and operational effectiveness
- Unclear what this means on everyday basis - this would come out in studies.

- study should be within the program so we can have peer review and confidence

Flip Chart 13:

MO21 - Why have it? Interim step, not end of itself
A - source of sediment for BHBF
- now we know also comes from eddies
- <8K cfs, large % of sand to build sandbars
- under current flows, sand is moving out
- is sediment necessary for aquatic habitat?
- would this MO cause us to change flows?
- up to this group - may take low flows
- MA is to temporarily retain for beach building
- fine also has function in ecosystem - habitat diversity (low flows, backwaters), substrate for benthic invertebrates
- Timing - can't keep flows <8000. Specify time frame in current and target levels.

Flip Chart 14:

Target - 21A, all attributes
Including some time frame based on tributary inputs and high flows timing (IN)

Include other parameters to be in the narratives.
- reach/scale variations
- ability to store