

Social and Environmental Health

1. What does "**social and environmental health**" mean regarding the Upper Platte River Basin? *Social health = economic viability = water supply*
Environmental Health = Instream flows are met, can fish + other water quality recreation
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
*water supply reliability increases under a given supply situation
wet/dry/normal maintained*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?
Drought

Safety

1. What does "**safety**" mean regarding the Upper Platte River Basin?
Fire Suppression Flood Protection
2. What metrics could we use to determine if the basin is **safe**?
Drinking water - Supply and Quality
Drinking water is reliable, even in drought - Have a plan
Fire Suppression is reliable, ... - Have a plan
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?
Drought

Welfare

1. What does "**welfare**" mean regarding the Upper Platte River Basin?
welfare = economic viability = water supply
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
Maintain/increase water supply sustainability reliability
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?
Drought

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
 that the H₂O supplies support a diverse economic system that provides jobs in multiple sectors, while keeping rivers wet + flowing to protect ecosystems
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
 - access to healthy river/stream areas
 - minimum flows, ecosystem function
 - diverse jobs in communities
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
 - H₂O supply issues for domestic/muni users - flows that reduce habitat, compound H₂O quality issues, or
 - inability to access flowing rivers

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
 Keep the Platte functioning as a system → removing interconnected systems (return flows)
2. What metrics could we use to determine if the basin is safe?
 Completely Δ's how the basin conveys H₂O. ~~the~~ communities + individuals are reliant upon the current paradigm
 - Deviations from set points in time - H₂O availability
 - flows, species metrics (abundance, diversity, etc) does not create public health crisis
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it? - drought
 - Δ's to the flow regime

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
 what level of H₂O use + environmental degradation is acceptable for the socioeconomic benefits
2. What metrics could we use to determine if the welfare of the basin has been maintained?
 - environmental (ecosystem, specie) - economic (poverty, wealth distribution, etc)
 - demographic (population, # of industries, acres)
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
 - when interests of 1 group prevent H₂O use of other groups

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the basin is **safe**?
Water Quality
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?
/
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?
Sustainability of a natural resource for users.
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?
Decreased water availability affects ag. recreation, hunting, fishing etc. Its all tied together.

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?
Insuring future water availability for users.
2. What metrics could we use to determine if the basin is **safe**?
Fullly appropriation.
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?
*Economic and recreational uses in jeopardy of elimination.
Full appropriation.*

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?
I think welfare is captured in the first two.
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin? *That the environment is NOT negatively affected from water shortages brought on by NOT conserving water*
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *I DON'T KNOW*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it? *There ~~is~~ evidently is NOT enough now?*

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin? *That there is enough water to safely operate our business and that future generations have enough*
2. What metrics could we use to determine if the basin is **safe**? *?*
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin? *That the Basin stays in good enough shape for future generations*
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?

society continues to function

2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?

population is stable + productive

3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

No snow for 3 yrs and in trouble
will not know until it happens

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?

Nitrogen in water and chemicals

2. What metrics could we use to determine if the basin is **safe**?

current monitoring

3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

a shortage will ~~con~~ concentrate pollution

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?

do not know

2. What metrics could we use to determine if the **welfare** of the basin has been maintained?

3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does "**social and environmental health**" mean regarding the Upper Platte River Basin? *How much water is available to maintain the way of life and the health of the river and everything that surrounds it*
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *if all the needs are met and there is room for more.*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it? *Very - enough for all the demands and excess if needed.*

Safety

1. What does "**safety**" mean regarding the Upper Platte River Basin? *that we are not depleting the basin, and we are keeping it safe for future generations.*
2. What metrics could we use to determine if the basin is **safe**? *if all needs are being met*
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *Always in times of shortage*

Welfare

1. What does "**welfare**" mean regarding the Upper Platte River Basin? *future making sure it is there for the future.*
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *During SHORTAGE the basin still needs to be maintained.*

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?

Economic considerations for growth & development

2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? maintaining populations & services

3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

maintaining ag, municipal needs / Growth & Services

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?

Water Quality

2. What metrics could we use to determine if the basin is **safe**?

means testing

3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

historic flows

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?

Overall physical & economic maintaining

2. What metrics could we use to determine if the **welfare** of the basin has been maintained?

historic population & business census

3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

when decline in ag production cannot (fund) maintain its population that point of decline will become pronounced

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin? *They are all of God's creations doing in the present & future conditions if they continue the way we are going*
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *# of pressing issues are being pressed upon us.*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it? *when we no longer have life able to grow - amount that will provide food & water for all.*

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin? *control flooding as much as possible - clean & cleanable water to use & drink*
2. What metrics could we use to determine if the basin is **safe**? *By #'s of people who have lost their life or have had medical issues caused by water*
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *when too much or when there is not enough. - constant need? stream flow -*

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin? *people are all satisfied*
2. What metrics could we use to determine if the **welfare** of the basin has been maintained? *happy - low crime - Business growth - Pop growth etc.*
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *everyone has enough for their use & business use.*

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?
is it livable for all species in a comfortable way
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?
*always vulnerable
water necessary is fluid*

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?
is there enough water to keep basin whole
2. What metrics could we use to determine if the basin is **safe**?
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?
same as above

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?
is it viable
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?
same as above

Social and Environmental Health

1. What does **“social and environmental health”** mean regarding the Upper Platte River Basin? *helps meet the requirements of the PRRIP agreement*
 - Helps meet requirements of HB 962
 - Protecting recreational uses and biodiversity
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *work cooperatively to identify and investigate for disputes between ground water users and surface water appropriators and, if determined appropriate, implement management solutions to address issues (Bridle)*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

Safety

1. What does **“safety”** mean regarding the Upper Platte River Basin?
 - Providing ground water recharge that protects water supplies and protects water quality
 - Provides protection from loss of water resources
2. What metrics could we use to determine if the basin is **safe**?
Same as above
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does **“welfare”** mean regarding the Upper Platte River Basin?
 - Well being (social support)
 - Protecting water supply for the surface water and ground water users.
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
Same as above
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
 - Clean water
 - A river with water flowing
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
 - Quality
 - Days water is in the river
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
 - Low to no flows
 - Possibly return flows. Not a large volume

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
 Un-necessary releasing of water from reservoirs. Filling as quickly as possible
2. What metrics could we use to determine if the basin is safe?
 Operation plans of reservoirs ~~which may cause high flows releases~~
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?
 None

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
 Maintaining an ag economy
2. What metrics could we use to determine if the welfare of the basin has been maintained?
 Economy of the basin
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
 Economy

Social and Environmental Health *negative*

- 1. What does "social and environmental health" mean regarding the Upper Platte River Basin? *Immunity from impacts to natural species*
- 2. What metrics could we use to determine if the basin is socially and environmentally healthy? *Periodic habitat analysis for impacts to wildlife, invasive species, etc. Water quality testing for contaminants. Water level testing for quantity.*
- 3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it? *Drought impacts natural species of animals and vegetation. Cost answers second question.*

Safety

- 1. What does "safety" mean regarding the Upper Platte River Basin? *Resistant to flooding conditions.*
- 2. What metrics could we use to determine if the basin is safe? *Annual seasonal flood impacts through water levels, stream gauges, etc.*
- 3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it? *I think safety is threatened by too much water, not too little.*

Welfare

- 1. What does "welfare" mean regarding the Upper Platte River Basin? *SYNAGONE*
I believe that welfare is a synonym for health, economy and safety
- 2. What metrics could we use to determine if the welfare of the basin has been maintained? *healthy c*
See above
- 3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
See above

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?
maintain a level of water supply that supports the minimum necessary to maintain these benefits.
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
Don't know
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?
during drought

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?
Don't understand
2. What metrics could we use to determine if the basin is **safe**?
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?
NO COMMENT
2. What metrics could we use to determine if the **welfare** of the basin has been maintained?
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
 - Social - amenities that are positioned to the residents
 - Env. - water quantity, water quality, fish & WL population
2. What metrics could we use to determine if the basin is socially and environmentally healthy?

Survey of Neb. residents on how they perceive the current status of the river & how it is managed.
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?

① - They are vulnerable every day - we are overappropriated!

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?

Flooding / Human interaction w/ the river.
2. What metrics could we use to determine if the basin is safe?

injuries / deaths / insurance claims
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Safety is not the biggest issue here - proper floodplain zoning would address this issue.

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?

current status / situation
2. What metrics could we use to determine if the welfare of the basin has been maintained?
 - flow stats.
 - fish & WL stats.
 - public survey
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
 - direct correlation w/ water amounts / flow
 - Target flows & Instream flows

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?

that achieving the goals of fully appropriated does not put a user group out of balance

2. What metrics could we use to determine if the basin is socially and environmentally healthy?

*# irrigated acres # industrial users
business # reservoirs*

*OR
~~the~~ ~~the~~ question or
asking about inputs*

3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?

It is not now being affected that I have heard

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?

- remove ~~from~~ legislation as not defined

2. What metrics could we use to determine if the basin is safe?

3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?

some as #1

2. What metrics could we use to determine if the welfare of the basin has been maintained?

3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?

The statutes state that if you sustain a balance between water uses + water surplus that the rest (social + environmental) safety + welfare follow. We need to get to understand where we are on achieving the goals before we know if these are even issues

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin? *Supports the Urban & Rural Communities & their way of life*
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *% of Graduates staying in area or children staying on the farm.*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it? *Ag - economic well being
Urban - Daily needs are easily met & affordable*

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin? *Future flows are protected*
2. What metrics could we use to determine if the basin is **safe**? *Annual flows - wildlife use -*
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *Extended Drought - that may be the million \$ question.*

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin? *Same as Safety - but all users satisfied*
2. What metrics could we use to determine if the **welfare** of the basin has been maintained? *level of flow v/s use*
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *Drought*

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin? *is it still viable now and will it sustain us in the future with a good balance for all involved*
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**? *everyone still needs to do their part and not be selfish*
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it? *enough so it is not wasted*

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin? *leaving some for emergency situations*
2. What metrics could we use to determine if the basin is **safe**? *more storage ???*
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *who knows*

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin? *a means of future support*
2. What metrics could we use to determine if the **welfare** of the basin has been maintained? *well managed NRD's like we have now*
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it? *what ever it takes, who knows*

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin? *People always settled next to a river*
2. What metrics could we use to determine if the basin is socially and environmentally healthy? *Look at Clamett Falls Organ*
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it? *When there isn't enough water*

Safety

1. What does "safety" mean regarding the Upper Platte River Basin? *same as rest of state*
2. What metrics could we use to determine if the basin is safe? *No floods*
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it? *When there is not enough water in dams*

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin? *When commuters can survive*
2. What metrics could we use to determine if the welfare of the basin has been maintained? *treat our families same as you would want to be treated*
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it? *Lite snow pack*

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?

~~These issues are important but NOT an essential part of the IMP. Hard to define.~~

2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?

3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

we need water for people and ~~with~~ wild life but Safety I'm NOT sure how to allocate priorities in the IMP.

1. What does “**safety**” mean regarding the Upper Platte River Basin?

↳ Important but NOT quite ^{quintessential} essential

2. What metrics could we use to determine if the basin is **safe**?

3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?

2. What metrics could we use to determine if the **welfare** of the basin has been maintained?

3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
*Environmental - quality of the environment
 Social - quality of life you can have in the basin*
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
*Env. - health of plants + wildlife population
 Social - are people using the resources for enjoyment.*
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
*No water in rivers + lakes - no recreation.
 Need enough good quality water to allow recreation.*

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
*Safety in respect to our concerns
 would be flood control + adequate water to*
2. What metrics could we use to determine if the basin is safe?
support life
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?
*obviously - heavy rain or snow melt/runoff - flooding
 lack of water to sustain plant and animal life.*

Welfare

Amount - depends on desired activity

1. What does "welfare" mean regarding the Upper Platte River Basin?
don't know - maybe quality of life.
2. What metrics could we use to determine if the welfare of the basin has been maintained?
?
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
*during drought many activities are restricted
 Amount - ?*

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
Ample supplies for all users
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
Economy of geographical area
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
*Excessive use, drought + during Peak use seasons
conservation*

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
Protection of water supplies for all users
2. What metrics could we use to determine if the basin is safe?
River + Groundwater levels
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?
*Drought + Peak use seasons
Not sure how much water is necessary*

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
Long term
2. What metrics could we use to determine if the welfare of the basin has been maintained?
*River + Groundwater levels
Availability of water to all users*
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
Drought + Peak use seasons

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
*Environmental Health: Enough water resources to sustain plant and wildlife.
Social- Recreation? Enjoyment by using water resources for entertainment, Boating, Fishing, Swimming etc.*
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
If there is water shortage, wildlife will suffer or move out of area,

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
Safety could be determined in different ways. If there is significant water shortage, Public Health, wildlife health could be affected. As well as food producers Cattle, Crops. Shortage in food is also a safety concern.
2. What metrics could we use to determine if the basin is safe?
Continue to monitor water supplies and uses.
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?
See question 1

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
General welfare of the entire river basin: Manage water resources to maintain quality of life for all users.
2. What metrics could we use to determine if the welfare of the basin has been maintained?
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
*vulnerable
All water users are vulnerable to shortage in some way. Public Health Agriculture, Plants and wildlife suffer in shortage.*

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
health of the environment as well as human systems & sustainability
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
sufficient water to sustain existing natural plant & wild life
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
movement toward mitigating flood potential
2. What metrics could we use to determine if the basin is safe?
size/severity of flood events
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
similar to social/environ. health. Perhaps ~~use~~ use this term for economic health.
2. What metrics could we use to determine if the welfare of the basin has been maintained?
tough based on many variables (non-water) that affect welfare.
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
when artificial measures (storage, restrictions, redirection, etc) cannot offset long-term welfare
welfare

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin? *SUSTAINABILITY*
2. What metrics could we use to determine if the basin is socially and environmentally healthy? *DEMOGRAPHIC DATA VS NORMATIVE*
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it? *DROUGHT How much depends on population growth, industry demands*

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the basin is safe? *INDEX OF SAFETY*
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin? *Remove Reserve for FUTURE USE*
2. What metrics could we use to determine if the welfare of the basin has been maintained? *ECONOMIC INDICES*
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?

INSTEAD OF THE ABSOLUTE OF EQUITY FOR EQUITY WHAT ABOUT MORE FLUID CONCEPTS OF BALANCE RECOGNIZING CHANGES OCCUR.

Social and Environmental Health *IMP*

- 1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
1. Positive & negative impacts to "social & env. health" as a result of ~~getting~~ fully appropriated.
- 2. What metrics could we use to determine if the basin is socially and environmentally healthy?
*Water use matches supply for SW users. (Balance water use / supply)
(~~SW income~~ ~~negative~~)*
- 3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
Measure SW use / supply - that will contribute to env. health and social health - Legislative

Safety

- 1. What does "safety" mean regarding the Upper Platte River Basin?
~~SW~~ ~~State~~ ~~conclusion~~
- 2. What metrics could we use to determine if the basin is safe?
- 3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

- 1. What does "welfare" mean regarding the Upper Platte River Basin?
- 2. What metrics could we use to determine if the welfare of the basin has been maintained?
- 3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Legislative Determination - based
Fully appropriated - (Supply equals use ~~and~~ on appropriation as granted) will ~~not~~ achieve social and environmental health, and safety, welfare ---
You should not determine fully appropriated by ->

Social and Environmental Health

1. What does “**social and environmental health**” mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the basin is **socially and environmentally healthy**?
3. How/when is **social and environmental health** vulnerable to water shortage? How much water is necessary to maintain it?

Safety

1. What does “**safety**” mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the basin is **safe**?
3. How/when is the **safety** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Welfare

1. What does “**welfare**” mean regarding the Upper Platte River Basin?
2. What metrics could we use to determine if the **welfare** of the basin has been maintained? *Water use usage on agriculture land should be measured and documented with Flow Meters to help determine the welfare of the basin.*
3. How/when is the **welfare** of the basin vulnerable to water shortage? How much water is necessary to maintain it?

Social and Environmental Health

1. What does "social and environmental health" mean regarding the Upper Platte River Basin?
human and natural populations, maintained in state of physical, mental, emotional health, to extent related directly to water quantity + quality
2. What metrics could we use to determine if the basin is socially and environmentally healthy?
environment: key species populations + health, water quality testing (GWT&W), continued + improved quantity measurements
human: track ~~water~~ incidence of water-related disease + mental stress
3. How/when is social and environmental health vulnerable to water shortage? How much water is necessary to maintain it?
- During drought +/or in presence of additional stressors
- minimum for maintaining water quality for human consumption + ecosystem health

Safety

1. What does "safety" mean regarding the Upper Platte River Basin?
as related to water - structural integrity of existing dams + canal systems, preparedness for disasters
2. What metrics could we use to determine if the basin is safe?
inspections of facilities, trends in flood/disaster losses
maintenance of floodways
3. How/when is the safety of the basin vulnerable to water shortage? How much water is necessary to maintain it?
shortages can undermine structural integrity of facilities
design minimum for, e.g., canals

Welfare

1. What does "welfare" mean regarding the Upper Platte River Basin?
overall, highly subjective, well-being of basin populations
2. What metrics could we use to determine if the welfare of the basin has been maintained?
surveys assessing quality of (human) life
overall assessment of ecosystem stability
3. How/when is the welfare of the basin vulnerable to water shortage? How much water is necessary to maintain it?
See previous for a start