

# **ALASKA DALL SHEEP DISCUSSION RESULTS**

## **DALL SHEEP UNIT 19C PLANNING TEAM WORKSHOP (IN-PERSON AND ZOOM PARTICIPATION), ANCHORAGE, ALASKA**



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Workshop Dates: Tuesday and Wednesday June 25<sup>th</sup> - 26<sup>th</sup>, 2024

Location: Anchorage, Alaska, USA.

Results report prepared by Dr. Alistair Bath on behalf of the workshop participants.

Bath, A.J. 2024. Results from an Applied Human Dimensions Facilitated Workshop Discussion regarding Alaska Dall Sheep in Unit 19C: Workshop held in June 2024. 44pp.

## DALL SHEEP UNIT 19C DISCUSSION WORKSHOP RESULTS

### Introduction:

The Unit 19C Sheep Working Group came together to discuss a variety of issues regarding Dall Sheep management in Unit 19C in Alaska. The working group is made up of Jerry Burnett with the Board of Game and the Group Chair, Stosh Hoffman, Jake Fletcher, Scott Crowther, Brett Gibbons, Mike Litzen, Michelle Quillin, Chait Borade and Patricia Owen. This team worked together for two full days with the focus of the workshop being understanding and addressing the key issues facing Dall Sheep and their management in Unit 19C in Alaska. Patricia Owen attended through zoom for both days while all other members of the group were in-person.

Alaska Fish and Game has initiated an innovative visual process of facilitation by an independent facilitator based on effectively listening and involving the diverse group of interests, who make up the Sheep Working Group, brought together to create a Dall Sheep Management Plan for Unit 19C. A similar process of facilitation was used successfully to develop the original Lower Innoko-Yukon River Alaska Wood Bison Management Plan, the first release of wood bison into the wild in Alaska. And the visual style of facilitation continues to be used with revisions to that wood bison restoration plan and in other areas of the State considering wood bison restoration. Creation of management plans and past revisions to update the wood bison restoration plans are built on consensus and positive working relationships between all individuals who make up the wood bison restoration planning teams. And although there are diverse viewpoints, much common ground can be identified when exploring issues using the visual style of facilitation.

The Sheep Working Group of 9 individuals met for two days on Tuesday and Wednesday, June 25<sup>th</sup> and 26<sup>th</sup>, 2024 in Anchorage, Alaska. In addition to the 9 individuals making up the Sheep Working Group, public testimony was heard from two individuals; several Alaska Fish and Game staff were in the room for support if requested upon by the Sheep Working Group. Members of the public were able to be on-line or in the room to listen to the discussions. The workshop was recorded with the exception of break-out smaller group discussions. When the smaller groups presented their ideas back to the larger group, recording was once again in progress. This report summarizes the results from those two days of discussion.

The workshop was facilitated by Dr. Alistair Bath from Bath and Associates ([www.bathandassociates.ca](http://www.bathandassociates.ca)), a Human Dimensions Consulting Firm from Newfoundland and Labrador, Canada using an applied human dimensions facilitated workshop approach (AHDFWA), a visual technique that encourages productive and efficient discussion amongst all workshop participants, and a technique modified by Dr. Alistair Bath. Bath and Associates has worldwide experience working with groups on bison (e.g., Germany, Romania, Yukon, Canada and Alaska, United States), protected areas (Romania, Italy, Armenia/Turkey/Georgia border areas, and various national parks within Canada, Yellowstone National Park in the United States), urban biodiversity issues (Jerusalem, Israel), and many other wildlife issues including wolves, brown bears, and wolverine issues throughout Europe, tigers in India, and jaguars in Brazil. All of these conservation issues has required active facilitation and conflict resolution

techniques between diverse interests to reach consensus on management plans and strategies. Over 30 years, Dr. Alistair Bath has facilitated groups using this applied human dimensions facilitated workshop approach (AHDFWA) toward consensus on management plans regarding wolves, bears, bison, capercaillie, forestry plans and protected areas strategies worldwide. The process has worked bringing Israelis and Palestinian Authorities together on urban biodiversity issues in and around Jerusalem and has proven its effectiveness multiple times in various countries with diverse groups who often start very opposed to each other, but gain a mutual respect for each others views and consensus on common wildlife management plans. Each part of the facilitated process is used to help build trust between all organizations and individuals in the room, explore the key issues, a common vision, obstacles to achieving that vision which become objectives and specific actions. During the facilitated workshop, participants work constructively to various components of a management plan or strategy. This approach was implemented for two days to explore Dall sheep management issues in Unit 19C.

For fruitful dialogue, workshop participants are seated in a semi-circle able to see each other facing a group of boards that capture the nature of the discussion. First Nations and Indigenous groups have often used a full circle to inspire constructive discussion. Ideas are presented on cards and shapes of different colors which are portrayed on the boards for all individuals to see. Ideas at the front of the room are then discussed rather than challenges toward individuals saying them occurring, thus minimizing conflict within the room but encouraging productive discussion and the direction of constantly working toward solutions. To encourage all participants to discuss issues, smaller groups are often used to explore topics in more depth and gain consensus in smaller groups before sharing ideas back to the larger team. After working in smaller groups, the entire team is brought back together to share ideas and gain consensus within the larger forum. The results of the workshop are presented as images (i.e., sheets) in this document. The images appear exactly as the discussion occurred in the room. One strength of the AHDFWA is that there is no interpretation of the minutes, but simply the presentation of the items as discussed by participants in the form of these photographs of the discussion sheets. This report guides those willing to understand the nature of our workshop through these work sheets.

The workshop begins with introductions of all participants and the learning of everyone's name by the facilitator; learning names is a first step of respect and building trust. Usually a question is posed to participants to encourage them to say something about their interests, what's been keeping them busy, a favorite activity in leisure time, or to tell an interesting story.

With this being the first facilitated workshop with the Sheep Working Group and to test for early agendas, communication amongst organizations and participants, an opening exercise was initiated exploring whether individuals knew why they were at the workshop and what we might be doing. Sheet 1 illustrates these results. All dots were placed on the green cards indicating some familiarity or a great deal of familiarity with the process and the facilitator. Individuals highlighted that they were in a room with good people and were looking forward to good discussions focused on finding solutions for the sheep. Individuals expressed concern for current

Sheet 1: Responses to "I know why I am here at this workshop"

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DALL SHEEP  
WORKSHOP  
JUNE 25-26, 2024

I KNOW WHY I  
AM HERE AT THIS  
WORKSHOP

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+  
• • • •

+ +  
•

COME UP WITH  
SOLUTIONS  
→ GOOD PEOPLE  
→ GOOD CONVERSATIONS

KNOW FOR RESOURCE

NOT COME WITH  
EXPECTATIONS  
→ OPTIMISTIC.

SAME STATE OF  
MIND - INSIGHTS

LOT OF DISCUSSIONS  
LOT OF OPPORTUNITY  
TO AVOID FUTURE  
CONFLICT.

NATIONAL PARK RES  
SERVICE REP, BIOLOGIST  
→ HAVE CONCERNS ABOUT  
- SHEEP'S WILLING TO HEL

GRANDSON'S FUTURE  
OF EXPERIENCE  
15+ YRS

SUPPORT, BUILD  
RELATIONSHIPS WITH  
GROUPS

BENEFIT FROM  
RESOURCE  
→ GIVE BACK

①

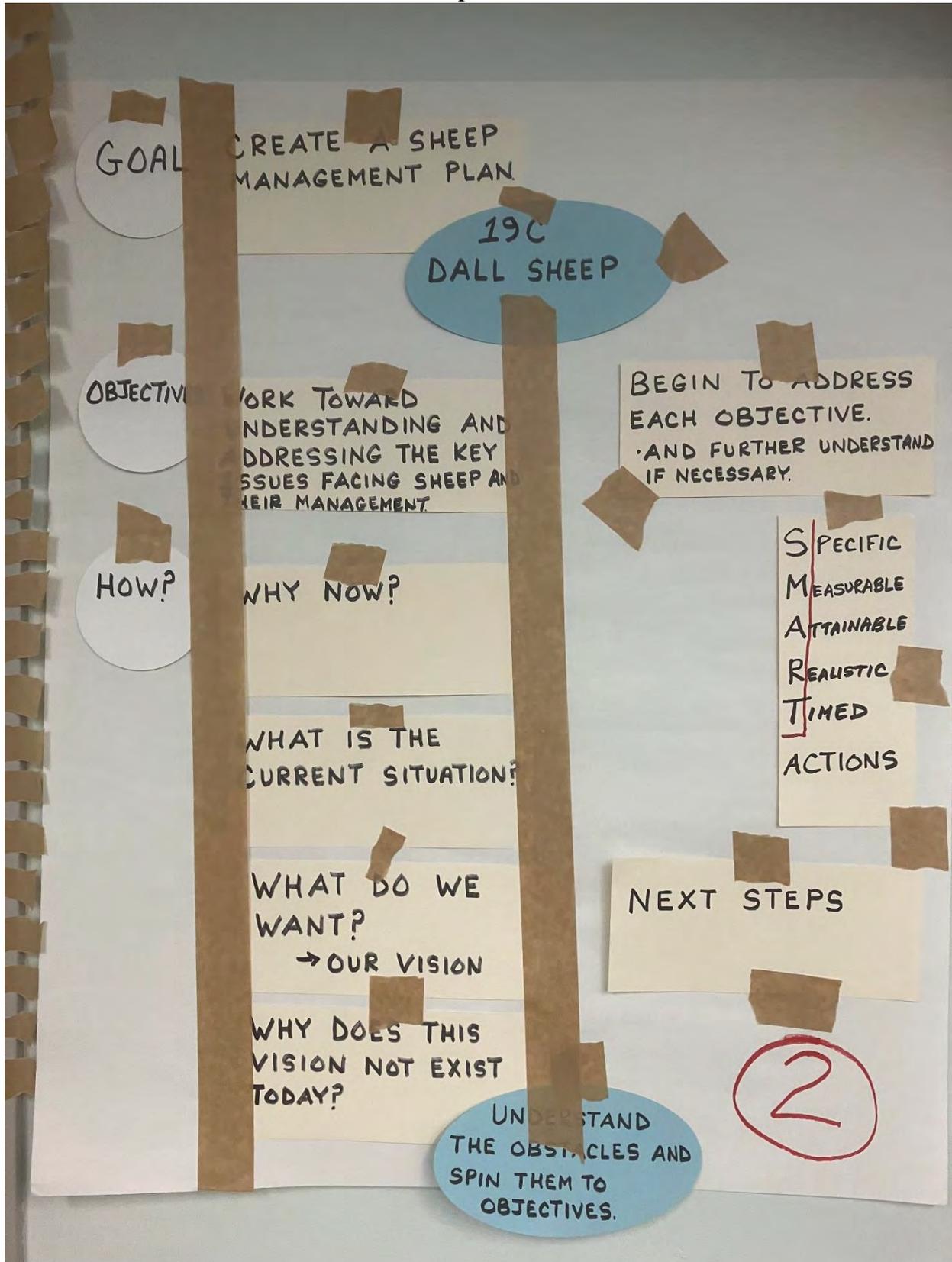
sheep populations within the State and particularly Unit 19C. All members of the Sheep Working Group understood that they were there to play a role in ensuring sheep exist for future generations, and to give back to the resource after enjoying their own experiences whether consumptive and/or non-consumptive with Dall Sheep (see sheet 1).

Sheet 2 then illustrates the stated agenda with an overarching goal of working toward understanding and addressing the key issues facing sheep and their management in Unit 19C in Alaska. More specifically the Sheep Working Group is focused on creating a management plan and bringing recommendations to the Board of Game. Key issues, a common vision, obstacles to achieving the vision, activities to achieve objectives and next steps were all part of this agenda. However, before tackling these issues, the group heard public testimony from Kevin Kehoe, Alaska Wild Sheep Foundation, who urged the Sheep Working Group to be bold with ideas understanding that significant interest and resources could support exciting initiatives focused on Dall Sheep in Unit 19C. His written testimony can be found in Appendix 1. A second individual, Mark Richards from resident hunters of Alaska, urged the group to think of sheep first, and then resident hunters (Appendix 2). Mr. Richards also encouraged the Sheep Working Group to discuss issues surrounding the Guide Concessionaire Program. He believed the group should operate not necessarily on a 100% consensus for every item, but to look for compromises that could ensure the building of cooperation amongst all groups supporting ideas with a simple majority where possible. The Sheep Working Group indicated the importance of working toward consensus whenever possible but also ensuring recommendations can be made if most of the group agrees. It was made clear that there would be further opportunities for public testimony on any proposals submitted formally to the Board, but the group encouraged members to work together as best they could, emphasizing the strength of a common voice from the team (see sheet 3). To achieve all the objectives and ensure a productive two-days of dialogue, discussion rules were established and agreed upon by all members of the group (see sheet 3).

### **Understanding “Why Now” to discuss Sheep and Sheep Management Issues in 19C:**

The 9 member sheep working group were then divided into three smaller groups of three to first address the question of “why now”, meaning why now is the group discussing sheep and sheep management issues in 19C. This discussion is captured on sheet 4. The main reasons offered by workshop participants were: 1) beliefs that the sheep population is declining across the state and in 19C, 2) the need to think about the future and recovery options, 3) that action needs to be taken and we must discuss what that could look like, 4) the need to involve all cultures and traditions in solutions, 5) that the resource is economically valuable and worth protecting, 6) to address user group conflicts, 7) to explore any necessary legislative changes that could improve the situation, 8) to identify what data we have and what we need to make better decisions, and 9) that the situation is critical and government and organizations are poised to work together for

Sheet 2: General Direction for the Workshop



Sheet 3: Public Testimony and Discussion Rules for the Workshop

KEVIN KEHOE  
DARE TO BE BOLD WITH  
IDEAS.

MARK RICHARDS  
CONSIDER SHEEP AND  
HEN FOCUS ON RESIDENT  
HUNTERS  
DISCUSS GUIDE CONCESSION  
PROGRAM  
CONSENSUS?

PUBLIC  
TESTIMONY  
OPPORTUNITIES  
WHEN BOARD  
DECISIONS

DISCUSSION  
RULES

FOR FLOWING  
AND EFFICIENT  
DEBATE

30 SECONDS SPEAKING  
TIME

EXPRESS 1 IDEA  
AT A TIME.

WRITE DOWN ALL  
IDEAS.

7 WORDS ARE USUALLY  
ENOUGH

BUT NOT  
JUST KEY WORDS

FLASH FOR COMMENTS,  
CLARIFICATION AND  
QUESTIONS.

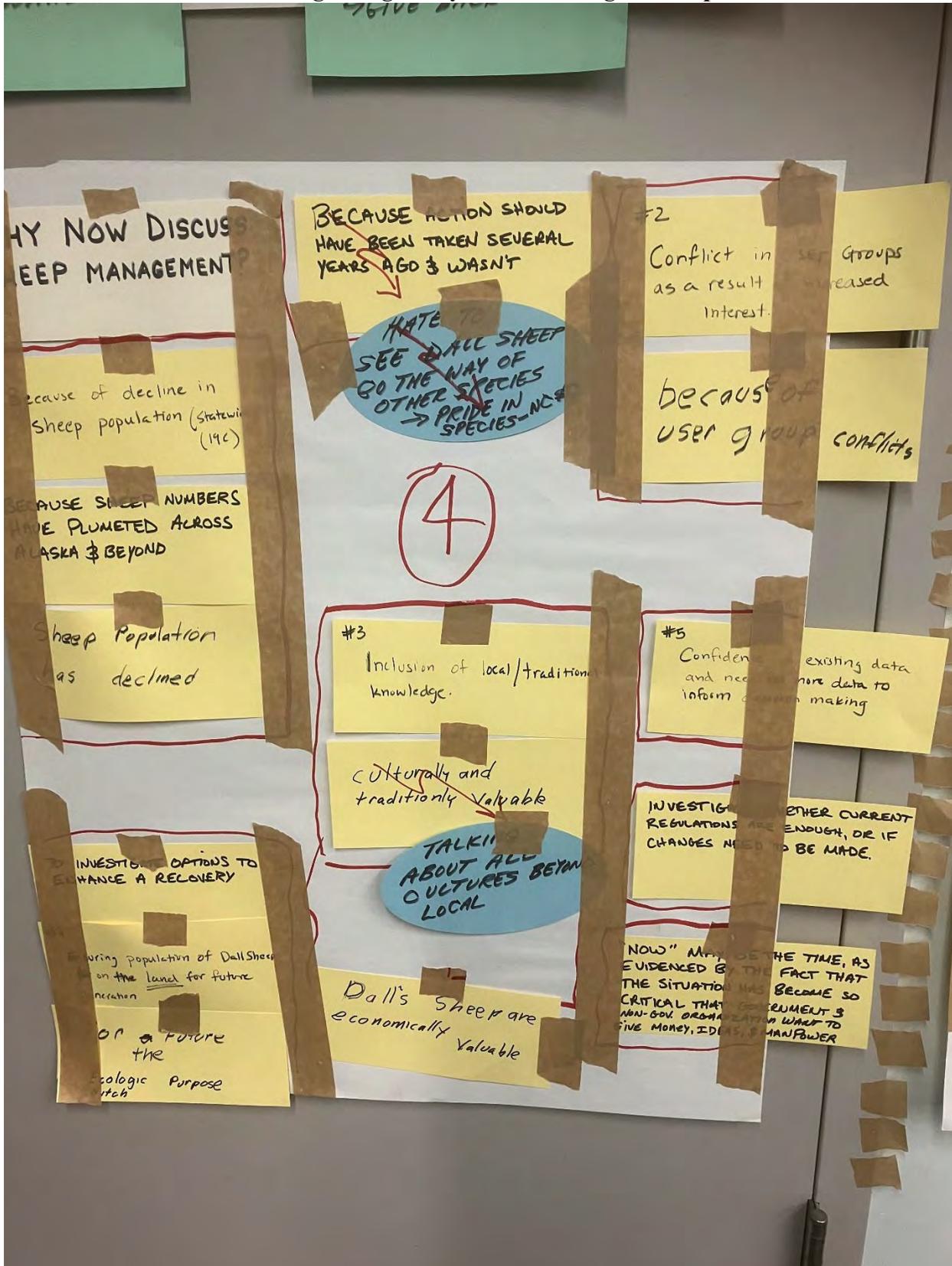
ADD COMMENT  
ON AN OVAL CARD

SAYING "YES" BUT  
THINKING "NO" JUST  
LEADS TO GREATER  
PROBLEMS LATER.

WILLINGNESS TO WORK  
IN SMALLER GROUPS AND  
ALWAYS WORK TOWARD  
SOLUTIONS.

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Sheet 4: Discussion Results regarding "Why now" focusing on Sheep in Unit 19C



sheep. The independent three smaller groups shared many of the same ideas indicating the possibilities of reaching consensus within the sheep working group.

### **Understanding the current situation:**

In another interactive discussion, workshop participants were asked to think about the current situation and whether they thought their understanding and addressing of sheep issues was getting better or worse. Participants were asked to place a dot on either the yellow cards suggesting the situation was getting worse or on the green cards suggesting the situation is getting better. Most members of the Sheep Working Group stated that the situation was getting worse from their perspective. The facilitator then got participants in smaller groups to discuss what made them pessimistic (yellow cards) and optimistic (green cards) regardless of where they had placed their dots. Sheets 5 and 6 highlight some concerns while sheets 7 and 8 discussed aspects that made participants optimistic.

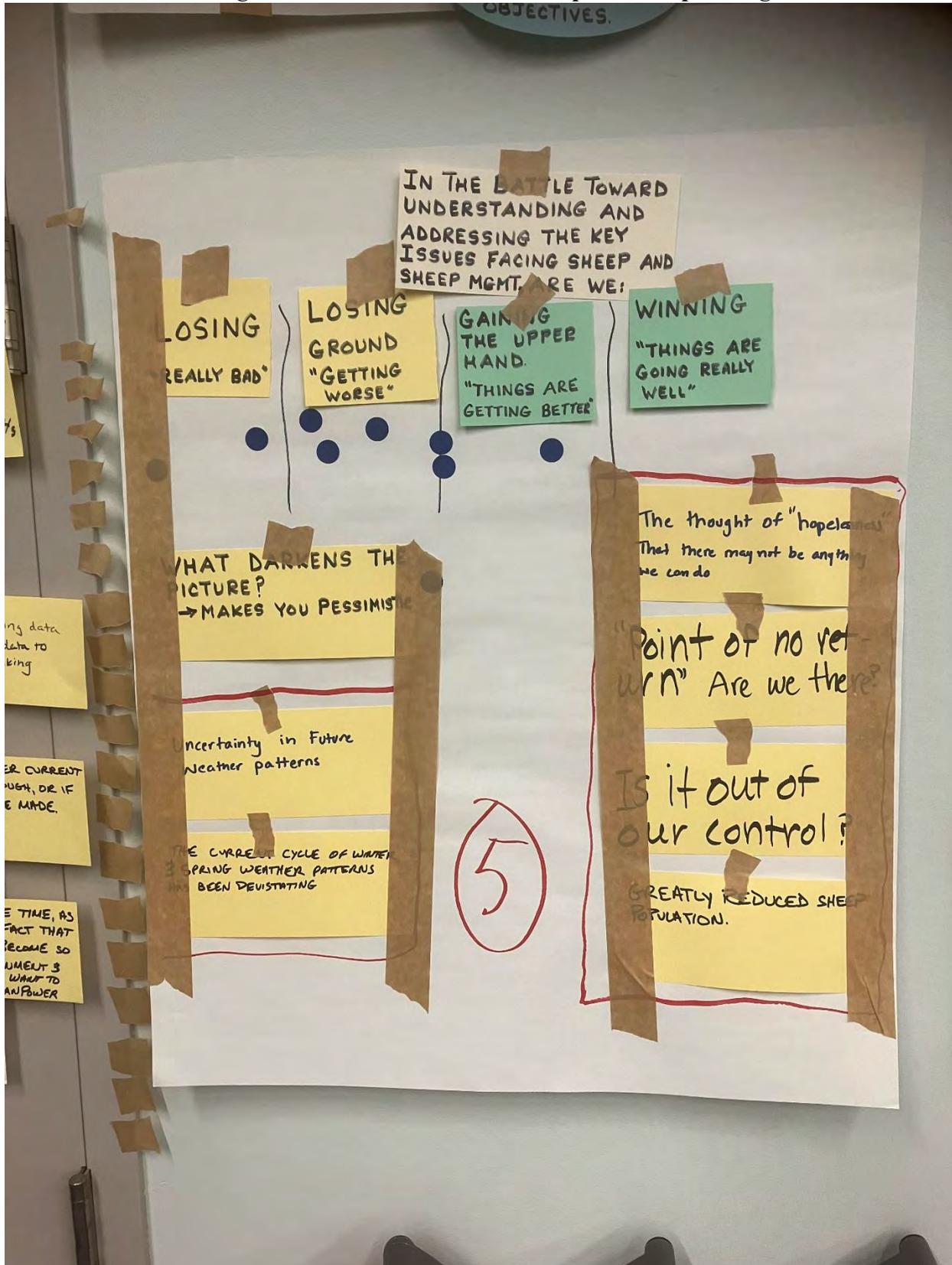
From a pessimistic perspective, workshop participants spoke of a sense of hopelessness regarding the sheep situation feeling that with the population in decline we may have gone beyond the point of no return. In addition, the Sheep Working Group members spoke of the uncertainty of future weather patterns and the inability to do predator control on eagles (see sheet 5). Other themes that made individuals pessimistic included the challenges of user conflicts and the difficulty to find consensus amongst all groups feeling that people are reluctant to acknowledge the realities of what is causing or has caused a sheep decline, and then to act appropriately to address the issue. Finally, the group spoke of how the issue of sheep has moved beyond a biological one and is now driven by a political and financial climate not conducive to addressing the decline in the population (see sheet 6).

From an optimistic perspective, workshop participants identified that often wildlife have a history of rebounding, stating nature has resilience. Individuals also spoke of last spring being better than previous seasons for wildlife, the fact that we are here at this workshop acknowledging that sheep are declining and need our help, and that predator control has been granted for some species in 19C (see sheet 7). The Sheep Working Group members were also optimistic that discussions and considerations were being made for future generations, advancements that were happening in technology allowing for better monitoring of animals, and finally that there was government and several NGOs eager to support ways to grow the sheep population (see sheet 8).

### **Exploring a common vision for Dall sheep:**

It is often said that a picture is worth a thousand words. The facilitator asked participants in smaller groups to discuss their key values first regarding Dall sheep conservation for the Unit 19C, and then draw an image of what they wanted the situation to look like in 30 years. Sheet 9 summarizes the key ideas from the images. All images desired more sheep, fostered low impact and respect of the experience and the animals. All involved protecting the culture of sheep

Sheet 5: Understanding the current situation with sheep and sheep management



Sheet 6: What makes you pessimistic about the current situation with sheep?

Inability to do predator control  
(eagles)

Political/Clim  
Current Gov. (could direct)

FINANCIAL & POLITICAL PRESS  
HAVE CREATED ROAD BLOCKS  
ADDRESSING THE DECLINE & TAKING  
ACTION.

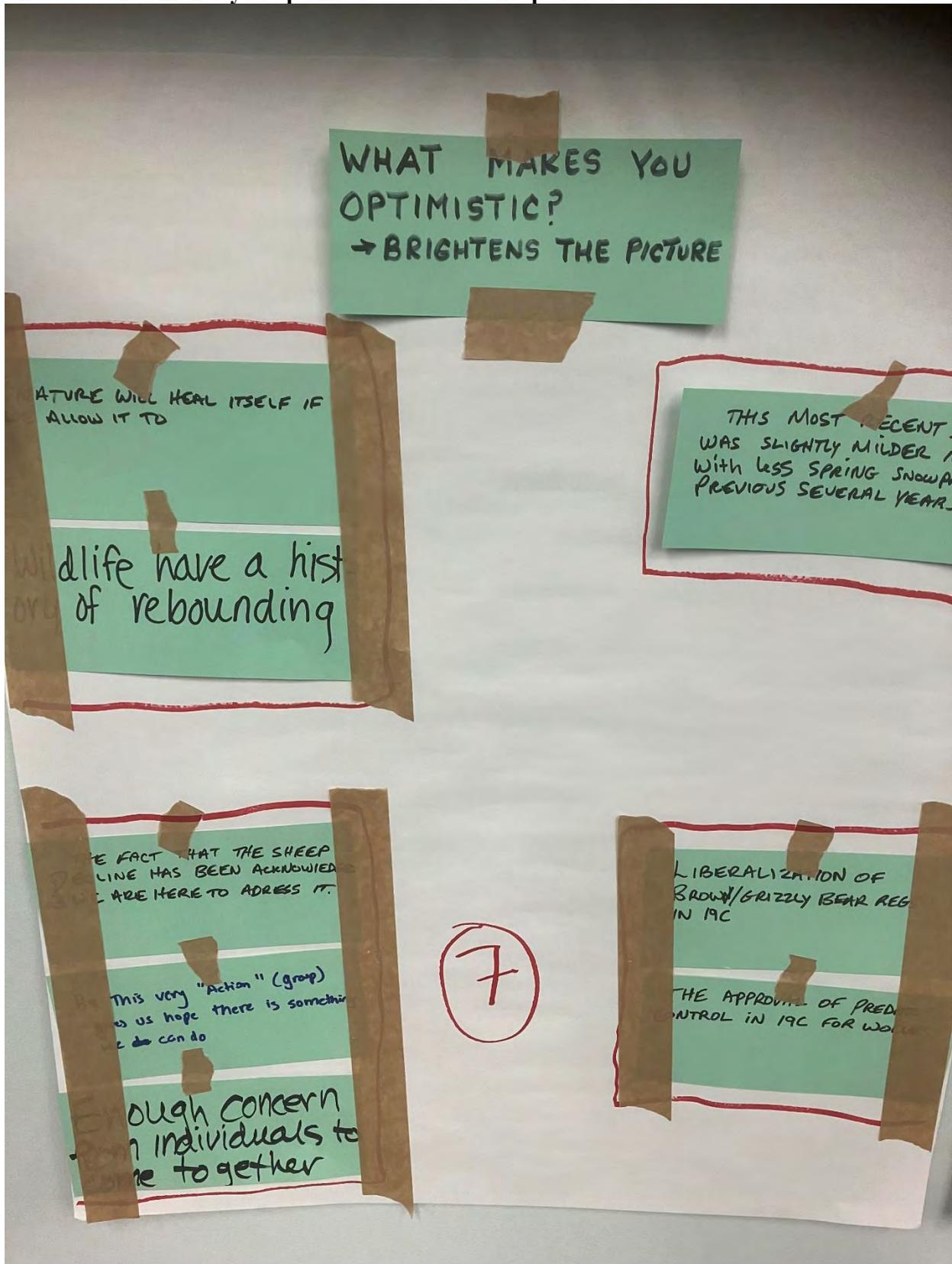
Hard to form  
a consensus

HUMANS ARE RELUCTANT TO ACKNOWLEDGE  
THE INCONVENIENT REALITIES OF  
WHAT IS CAUSING OR HAS CAUSED  
DECLINE

THE FACT THAT THIS HAS  
BEEN TURNED INTO A  
USER GROUP CONFLICT OR ISSUE,  
RATHER THAN THE BIOLOGICAL  
ISSUE THAT IT TRULY IS.

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Sheet 7: What makes you optimistic about the sheep situation?



Sheet 8: Continued ideas regarding optimism about sheep and sheep management

Finding what we can do to help Sheep recover

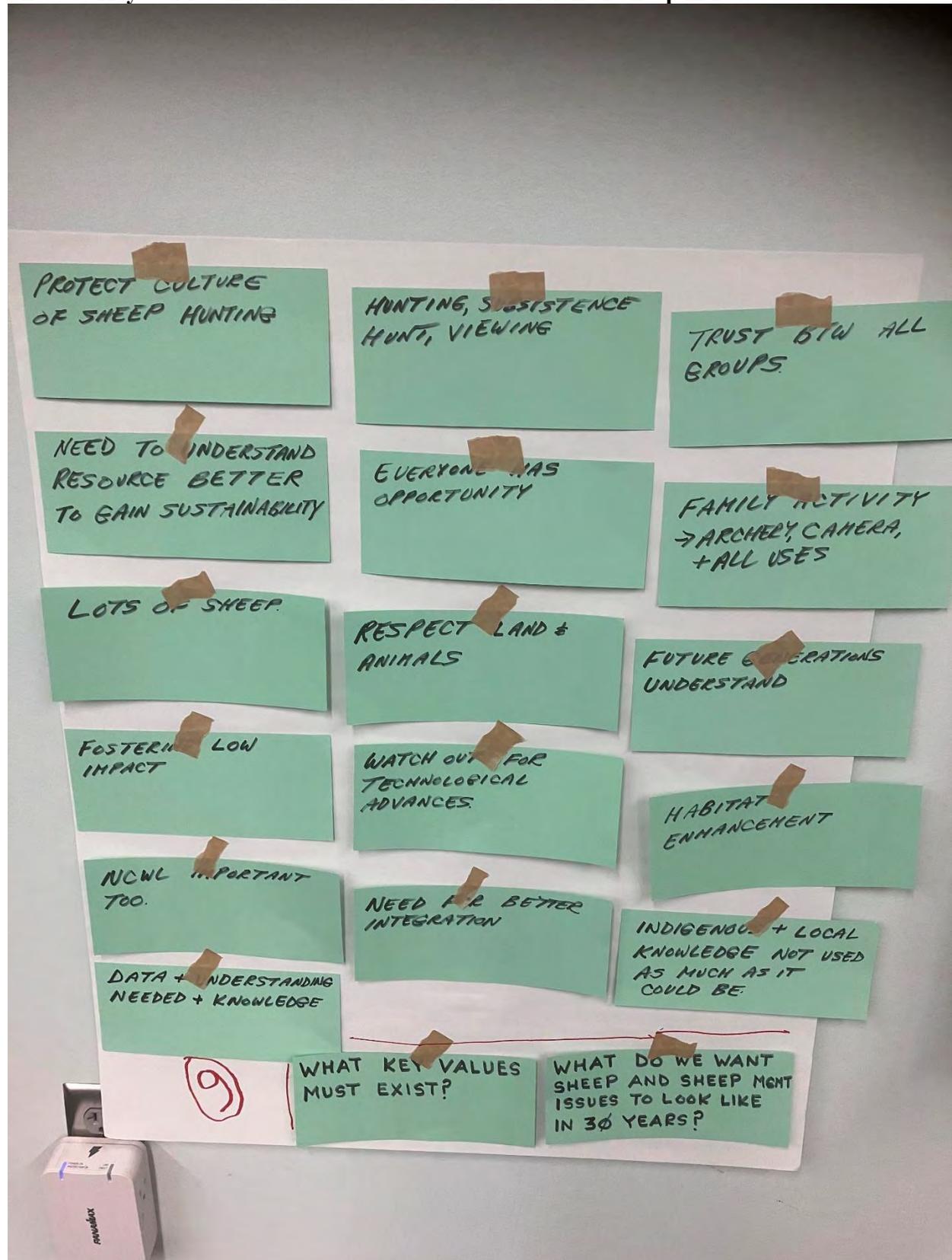
Future generations  
(a good ancestor)  
Self regulation by residents  
Willingness by guides to reduce the no. of guides in the area

TEACHERS  
EDUCATIONAL PERMITS TO HELP

Willingness by orgs. such as Wildsheep foundation to expend resources

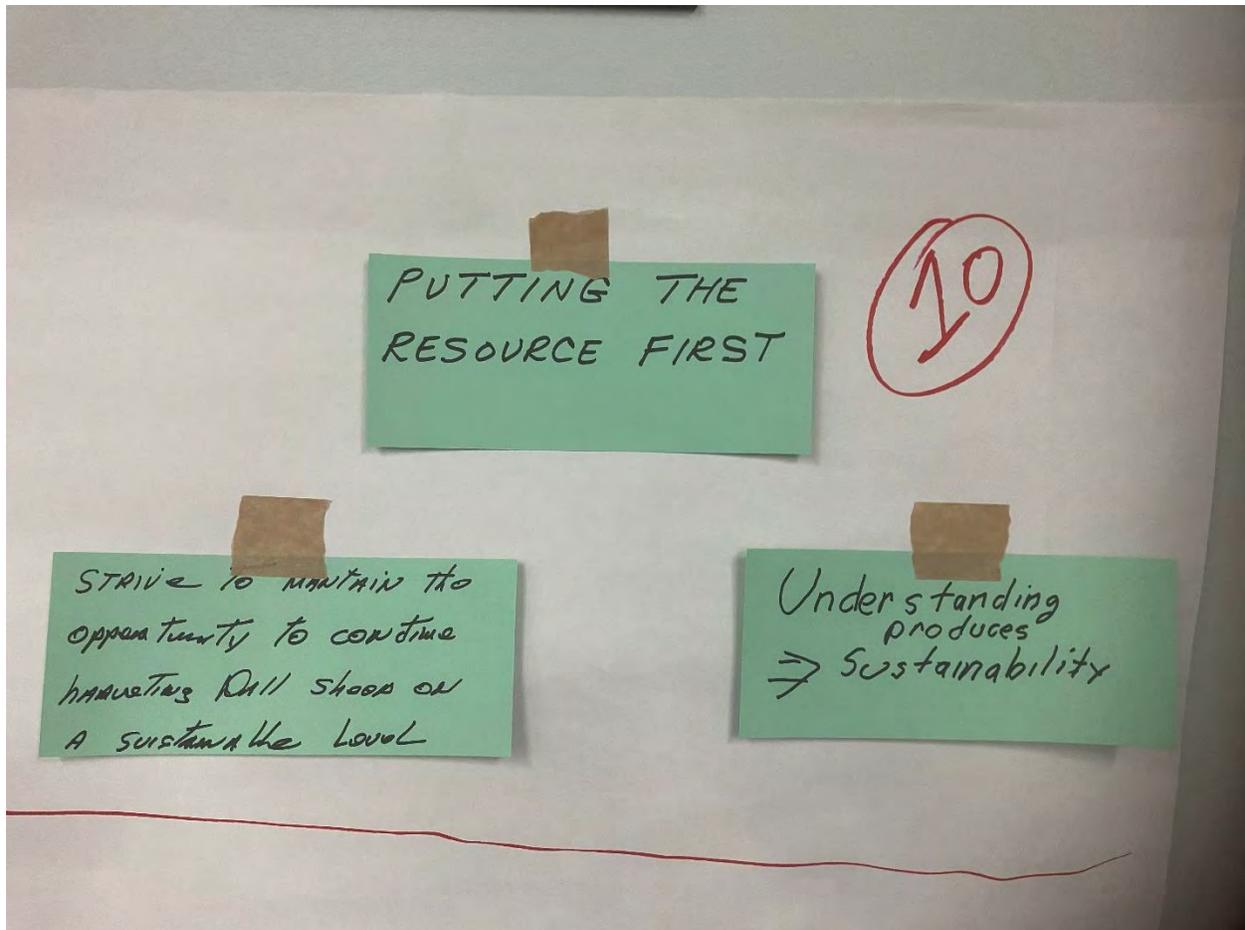
8

Sheet 9: Key Values that must exist for the future vision of Sheep in 19C

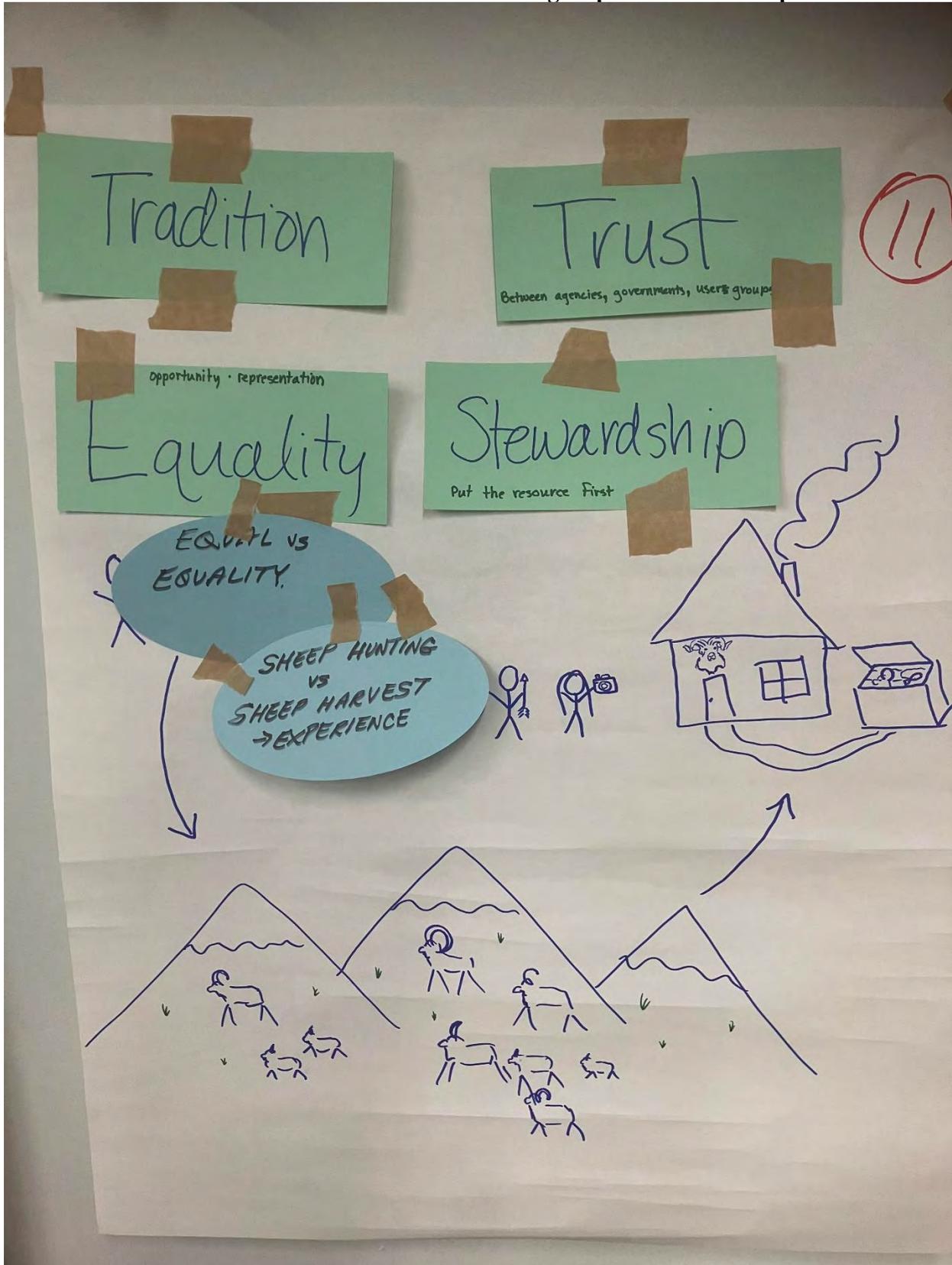


hunting and viewing. One group emphasized the importance of putting the resource first, understanding what produces sustainability, and then ensuring sustainable harvest for future generations (see sheet 10). Another group stressed the importance of tradition, trust, equality and stewardship emphasizing the difference between equal vs equality (see sheet 11).

### Sheet 10: Important Values associated with a vision from smaller group 1



Sheet 11: Vision and Values from one of the smaller groups at the workshop



Independently, all five groups drew similar images all agreeing that more Dall Sheep should be on the landscape for future generations. One group shared values of fostering understanding and knowledge of the resource for future generations, emphasizing respect for the land and for the animals, and to always honor and continue the ground-based foot hunting and searching for sheep no matter what technological advancements might come along in the future that could make hunting easier. Protecting the tradition of the hunting experience was important to this small group (see sheet 12).

Each group then worked to create a motivating, unique, concise, stretch but not overstretch vision statement that captured the values and discussion around the images (sheet 13). Each vision statement emphasized protecting culture, tradition and creating a stronger tradition of stewardship of wild sheep.

### **Understanding the obstacles to achieving our common vision:**

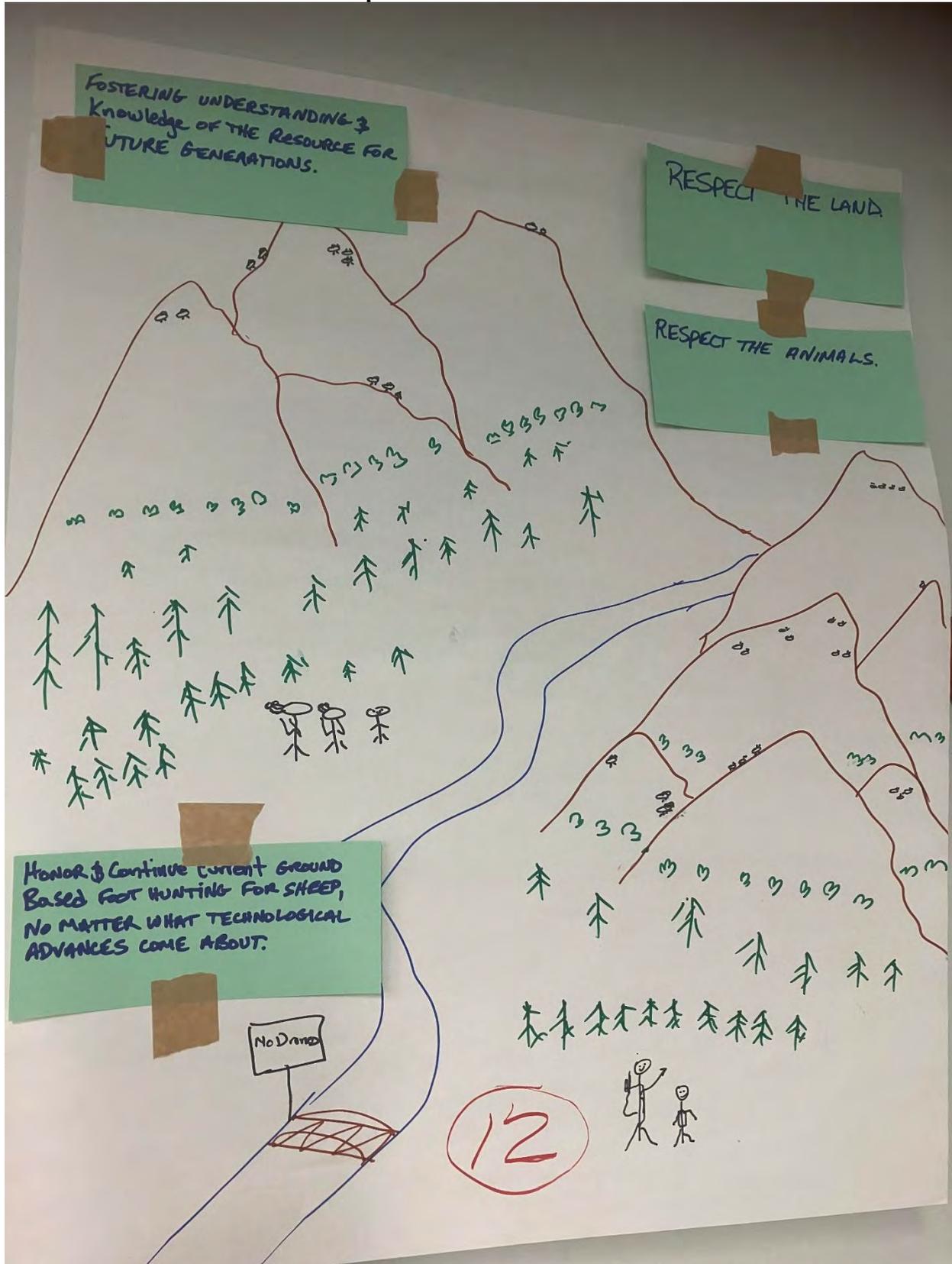
Once again within smaller groups so to encourage participation by all individuals, groups were asked to identify the five biggest obstacles to achieving the vision of sustainable sheep populations and hunting experiences in 19C. Sheets 13, 14 and 15 documented data gaps, economic pressures, one-size fits all management, land ownership, user group conflicts filled with mistrust, disconnected to the resource, a sense of hopelessness, current legal/political policies, access to and proximity of a major population, sheep is not an IM species possibly resulting in too many predators on the landscape, and habitat reduction. The sheep working group identified these 11 obstacles. With blue dots, participants were asked to identify the two biggest obstacles of all of those mentioned, and with a red dot identify the biggest obstacle that they believed they could do something about. Ideally, a group wants to see the result of a nice overlap of blue and red dots. The results of this exercise can be seen on sheets 13, 14 and 15. This was the end of the first day of the workshop.

The facilitator suggested the direction for Day 2 of the workshop, focusing upon formulating the obstacles as objectives, eventually leading to specific, measurable, attainable, realistic and timed activities (known as SMART targets). Other possible direction for the day could include issues around harvest allocations, issues surrounding full curl management, additional key issues not yet identified, and next steps. The day began with a discussion around sheep data gaps (see all the blue oval cards on sheet 16) before the group agreed to tackle this issue in a more organized manner under objective 1.

### **Creating Objectives by Addressing our Obstacles:**

The obstacles were formulated into objectives to better understand and begin to address them (Sheets 17, 18 and 19). These objectives could be integrated directly into the sheep management plan. The facilitator then focused the discussion by asking participants to select an objective they particularly wanted to work on with the understanding that they would share the results of their

Sheet 12: Vision and values of sheep



Sheet 13: Vision statements and key obstacles to achieving the vision

UNITING EFFORTS TO ENSURE SHEEP POPULATIONS TO PROTECT CULTURE & TRADITIONS.

Preserving the tradition of stewardship of wild sheep in wild

WHAT ARE THE KEY OBSTACLES TO ACHIEVING OUR VISION?

Data gaps

- South Vaccines
- Body Mass for growth
- Supplemental Feeding
- Prescribed burning

Fear of making problems worst.  
Uncertainty.

0B  
2R

WHAT IS THE BIGGEST OBSTACLE TO ACHIEVING OUR VISION?

3B  
0R

Economic Pressures  
mining <sup>exploration</sup> and building roads.  
State debt.

Noise pollution  
Aircraft  
→ Driving sheep into poorer areas

Gas line route potential & road could be an issue in 19C.

2B  
1R

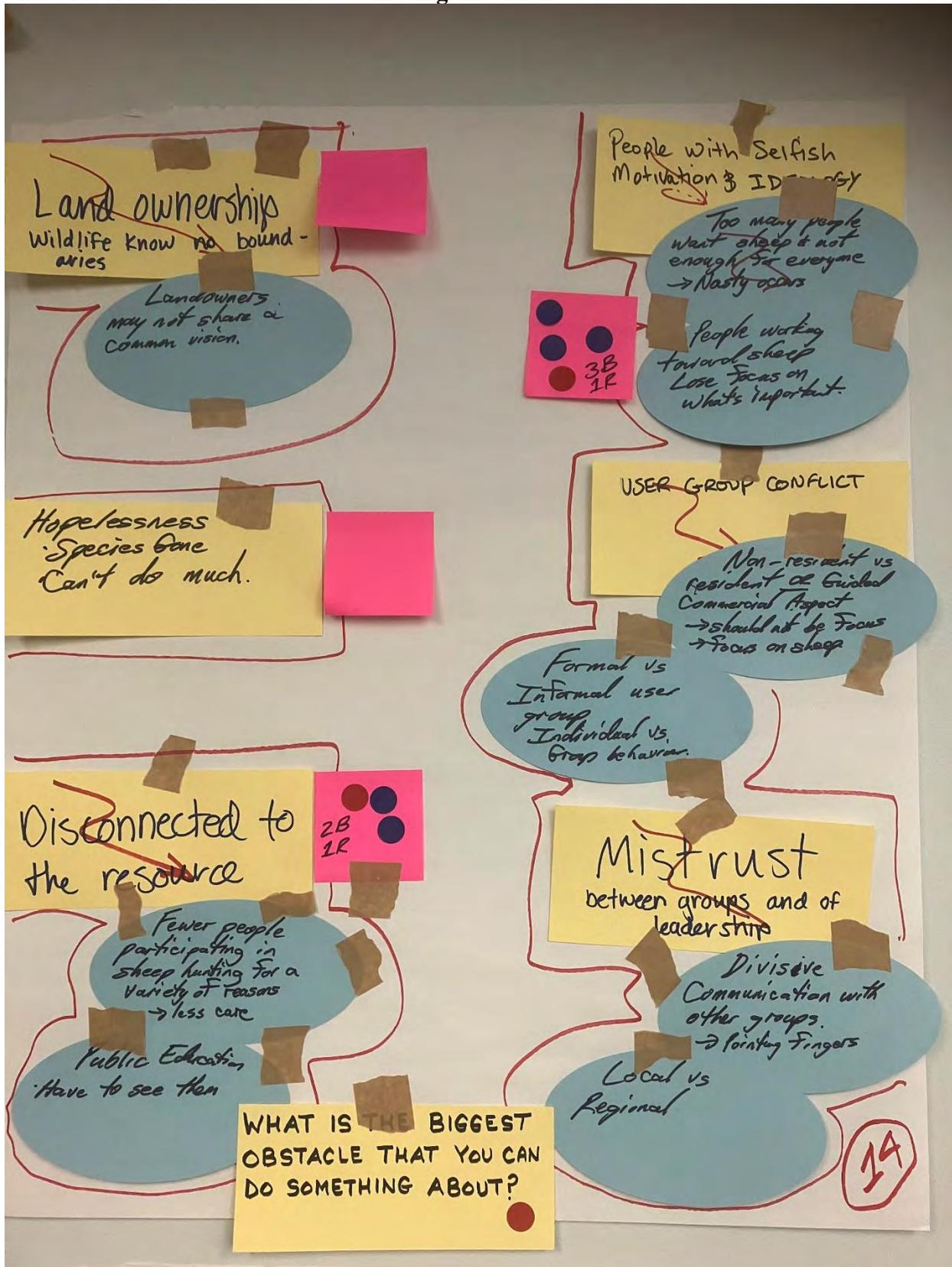
One-sized-fits-all management

Local advisory Committee → Board of Game  
→ Ongoing committees needed for those areas

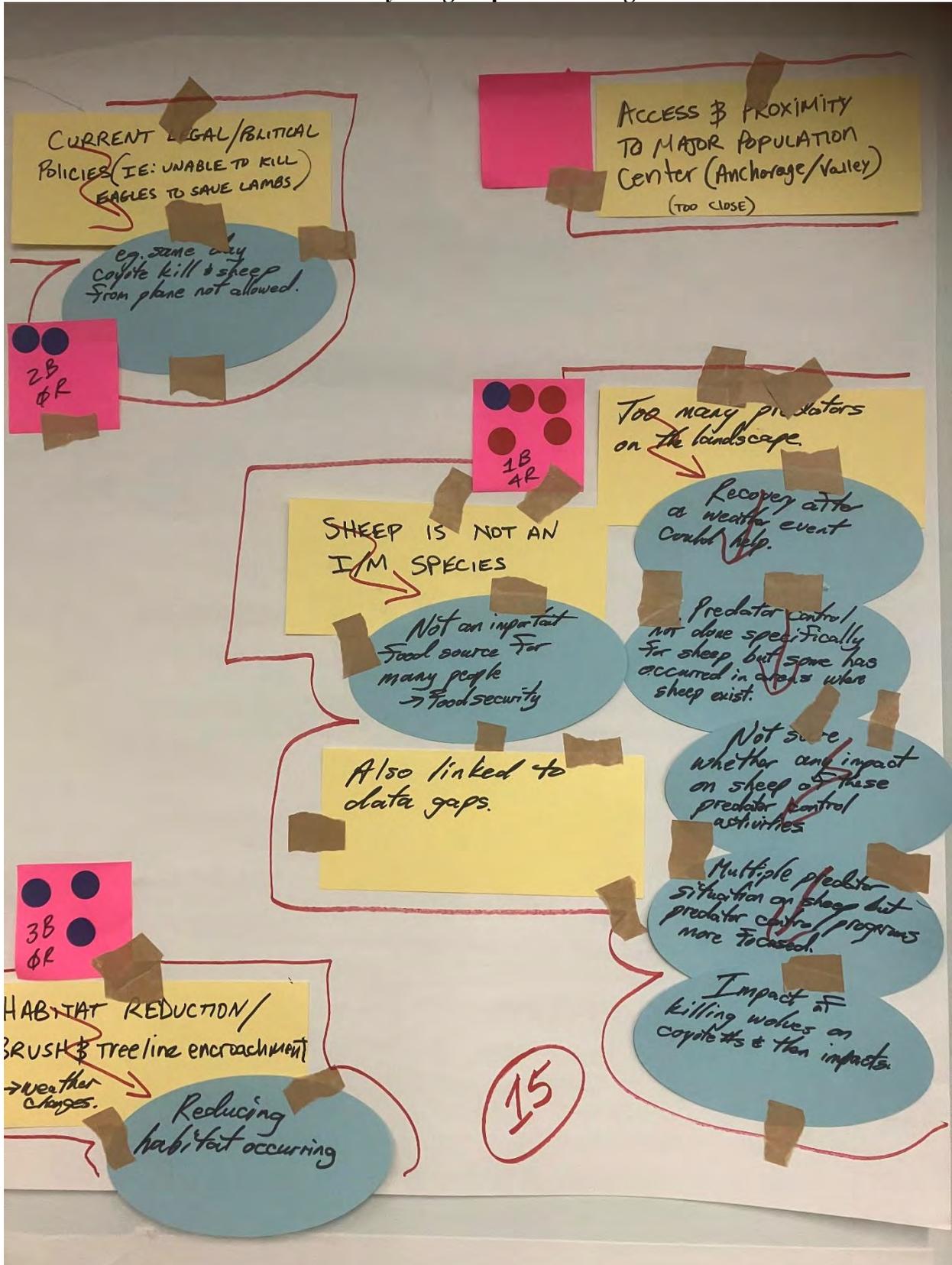
Current Board of Game → overwhelmed  
→ Need dedicated special groups.

13

Sheet 14: Additional obstacles to achieving the vision



Sheet 15: More obstacles identified by the group to achieving the vision



Sheet 16: Plan of attack for Day 2 of the Workshop and Opening Data Needs Discussion

DAY 2 DALL SHEEP WORKSHOP

FORMAL PRESENTATION ON UPDATE OF RESEARCH → DIRECTION NEEDED.

WRITE UP RESULTS FROM OUR WORKSHOP WITHIN 2 WEEKS. → ALISTAIR

DO WE MEET AGAIN?  
→ YES OR NO?  
→ WHERE?  
→ WHEN?  
→ WHY? AND WHAT TO DO?

FOCUS ON OBJECTIVES TO ACHIEVE COMMON VISION  
→ SMART ACTIVITIES AND FIRST STEPS TO IMPLEMENT.

EXPLORE ISSUES SURROUNDING HARVEST ALLOCATIONS.

EXPLORE ISSUES SURROUNDING FULL CURL MANAGEMENT.

ARE THERE KEY ISSUES TO UNDERSTAND AND ADDRESS THAT HAVE NOT BEEN DISCUSSED YET?

EACH INDIVIDUAL CAN HAVE 3-5 CARDS IF NEEDED.

NEXT STEPS?

OPENING DISCUSSION

SHEEP HARVEST BY YEAR → INSIGHTS?

AGREE TO DISCUSS UNDER 1.0

MGMT OF SHEEP-TAKING FEW ANIMALS → LESS DATA AVAILABLE THAN MOOSE.

NON-RESIDENT vs RESIDENT GRAPH

NEW SHEEP PROJECTS ARE OCCURRING + MAY HAVE IMPLICATIONS FOR 19C.

INSIGHTS? → OVER POPULATION POSSIBLE? → CRASHES + RISE

PREGNANCY RATES SIMILAR TO HUNTED vs NON-HUNTED SHEEP POPULATIONS

DENSITY DEPENDENCE RESPONSE COULD BE ISSUE.

HUNTED vs NON-HUNTED SHEEP POPULATIONS SHOWING SAME TREND

DON'T HAVE DATA TO EXPLORE QUESTION → OVER POPULATION

CORRELATED WITH WEATHER EVENTS

DATA GAP IN THIS AREA → LACK OF UNDERSTANDING

1.0 WHAT ARE THE KEY RESEARCH QUESTIONS?

16

IDENTIFY AND THEN FILL DATA GAPS.

**1.0**

**FUNDING ISSUES?**  
→ TIME & PEOPLE IS THE ISSUE  
→ HAVE \$\$\$

**CHALLENGING GENETIC WORK TO LINK RAMS TO LAMBS & FEMALES TOO**

**COMPLICATED BUT TRYING TO DO THIS WORK.**  
→ GENES DON'T CHANGE.

**ISSUES TO THINK ABOUT INJURY & LOSS IN COLLECTING DATA.**

**WHAT DATA IS NEEDED?**

**WHAT UNDERSTANDING IS REQUIRED?**

**STRESS! SURVIVAL**  
→ LINKED TO HUNTED VS NON-HUNTED

**LAND SURVIVAL?**  
· HUNTED VS NON-HUNTED?

**AGREE UPDATE ON RESEARCH WOULD BE USEFUL**

MINIMIZE ROAD AND AIRCRAFT NOISE IN AREAS OF SHEEP HABITAT.

**2.0**

**WHAT ECONOMIC PRESSURES SHOULD BE MANAGED?**  
→ MONITORED?

ENSURE FLEXIBLE, ADAPTIVE MANAGEMENT  
→ AVOID ONE-SIZE FITS ALL

**3.0**

**WHAT DOES THIS LOOK LIKE?**  
→ WHAT SHOULD IT DO & WHAT SHOULD IT NOT DO?

WORK WITH LANDOWNERS TOWARD A COMMON VISION AND APPROACH TO BENEFIT SHEEP.

**4.0**

**HOW?**  
WHAT MIGHT THIS LOOK LIKE?

INCREASE SENSE OF HOPE AND ACTIONS TO RECOVER DALL SHEEP POPULATIONS.

**5.0**

**IN**  
**OF**  
**MI**

**1X**

Sheet 18: Objectives 6 thru 9

INCREASE CONNECTION FROM ALL SEGMENTS OF SOCIETY TO THE RESOURCE.

6.0

- WHAT ACTIVITIES COULD BE DONE?
- WHAT MESSAGES ARE IMPORTANT?
- FIRST STEPS?

INCREASE TRUST BETWEEN ALL GROUPS & MINIMIZE USER GROUP CONFLICTS.

7.0

- WHAT DOES TRUST MEAN?
- WHAT TYPES OF USER GROUP CONFLICTS OCCUR?  
→ PERCEIVED AND/OR REAL?
- HOW MITIGATE CONFLICT?

UNDERSTAND STRENGTHS AND WEAKNESSES OF CURRENT LEGAL/POLITICAL POLICIES.

8.0

- WHAT IS WORKING AND WHY?
- WHAT COULD BE IMPROVED?  
→ WHY AND HOW?

UNDERSTAND EFFECT OF PREDATORS AND PREDATOR CONTROL ON DALL SHEEP.

9.0

- WHAT COULD BE DONE?  
→ BEST WAYS FORWARD?

18

Sheet 19: Objectives 10 and 11

UNDERSTAND AND ADDRESS WHERE POSSIBLE  
AREAS OF HABITAT REDUCTION FOR SHEEP.

10.0

- WHAT AREAS ARE BEING AFFECTED AND HOW?
- WHAT ACTIVITIES CAN BE IMPLEMENTED?

WITH ANCHORAGE "TOO CLOSE" TO SHEEP POPULATIONS  
HOW CAN OPPORTUNITIES BE ENCOURAGED OR DISCOURAGED?

11.0

WHAT REALLY ARE THE IMPORTANT ISSUES HERE?

ACCESS TO THE AREA  
→ PROXIMITY TO POPULATION

EASIER TO GET THERE  
→ PROPOSED ROAD + AIRSTRIP

NOT SPECIFIC TO ANCHORAGE

19

smaller group discussion back with the larger group. All these topics require further work, but initial agreements were found within some of these objectives. Workshop participants expressed several research questions to answer and requested Alaska Fish and Game to provide a presentation and update on research at the next workshop.

### **Objective 1.0: Identify Data Gaps and Key Research Questions**

Within smaller groups, workshop participants outlined several areas of data gaps and research questions (see sheets 20 and 21) asking Alaska Fish and Game to provide information on as many as possible at a future meeting. These questions included: 1) current sheep estimates and trends in numbers based on aerial surveys in 19C and the state overall (e.g., is the situation in 19C worse, the same or better than other areas?), 2) population estimates of bears and wolves within 19C and the extent of mortality by predators on sheep (e.g., how does this compare within 19C to other areas?), 3) understanding stressors on sheep like air traffic and other human activities, 4) carrying capacity issues – how many sheep could the environment support in 19C (e.g., is habitat better, the same or worse than other areas?), 5) weather and climate data and the effects on sheep survival (e.g., any better, worse or the same in 19C versus other areas of the state), 6) survival of age classes (and always how does this compare in 19C to elsewhere), 7) current lambing rates in 19C (e.g., better, worse or the same as elsewhere in the state), 8) understanding numbers and characteristics by hunted vs non-hunted sheep populations and by different management (e.g., any ram, full curl, etc.), 9) understanding genetics and the impact older rams have in the breeding of females, 10) energy expenditure on ewes and rams during the breeding season, 11) can data from different ranges apply to 19C, and 12) mortality factors for lambs, ewes and rams. Alaska Fish and Game ecologists present in the room stated that many of the group’s research questions were difficult to answer but promised to return at the next meeting with as much information and progress to date regarding these items.

### **Recommendation 1:**

**The Sheep Working Group agreed upon various research questions and data gaps to recommend to Alaska Fish and Game to address to the best of the department’s abilities, understanding fully that management decisions/recommendations will still need to be made under scientific uncertainties.**

### **Objective 2.0: Minimize road and aircraft noise in areas of sheep habitat**

The Sheep Working Group members explored the issue of minimizing road and aircraft noise in areas of sheep habitat. They suggested the need for a flight corridor and a controlled use area for helicopters and louder planes to minimize impacts on sheep at specifically sensitive times (see sheet 22). Similar ideas were discussed regarding road access but especially in terms of a new road constructed in conjunction with the Donlin Creek mine gas line. To minimize sheep-vehicle collisions or challenges crossing the road, workshop participants proposed a “sheep gap” where vehicles were stopped to allow sheep to cross at key times of the year. Sheep working

Sheet 20: Identifying Research Questions and Data Gaps

1.  $\emptyset$

WHAT ARE THE KEY RESEARCH QUESTIONS TO ADDRESS?

CURRENT 19C SURVEY RESULTS OR POPULATION ESTIMATES FOR WOLVES & BEARS

Predator mortality

CURRENT AERIAL SURVEYS FOR SHEEP

Air traffic and other human stressors on Dall sheep populations

TEMP & precipitation data FOR SPECIFIC POINTS TO ESTABLISH BASELINES FOR TRENDS

Comparative correlational studies of weather trends, weather events and populations.

Carrying capacity  
How much environment can support

DATA ON BROWSE QUALITY & ABUNDANCE IN 19C

"Browse removal" by sheep

20

~~scribble~~

Snow depth - energy forage  
how much weather factors into survival

Survival of age classes

Sheet 21: Additional Research Questions and Data Gaps

WHAT ARE CURRENT LAMBING RATES IN 19C?

DATA ON POPULATION DECLINE NOT ONLY IN HUNTED & NON HUNTED BUT ALSO AS IT APPLIES IN AREA OF "ANY RAM" OR VARIOUS OTHER HORN CONFIGURATIONS, NOT JUST "FUR" AREAS

21

Breeding genetic information to determine age class of ram breeders

Use sheep genetics to supplement estimates.

HAS GENETIC DIVERSITY CHANGED?  
→ SHOULD WE EXPLORE WAYS?

Can we apply data from different ranges on different populations etc.

Energy expenditure on ewes and rams during breeding season (w/ younger rams being main breeders)

What is the overall contribution of mature rams ~~to the~~ in addition to reproduction.

Knowledge from older Rams - younger rams survival impacted?

Mortality factors. More details Ratios on mortality for lambs, ewes, and rams.

Sheet 22: Addressing potential impacts of noise and access

2.φ

Controlled use area  
for helicopters and  
louder airplanes during  
specific times

Flight  
Train for helo wk  
CORRIDOR

(establish)  
Flight Corridor

Transportation  
Restrictions

Controlled use Area  
around road/easements

RECOMMEND RESTRICTED  
ACCESS ON ANY ROAD CONSTRUCTED  
IN CONJUNCTION WITH DONILYN CR.  
MINE GAS LINE.

WILDLIFE RESTRICTION COMPARED  
FOR MINERS & OTHER LAND  
USE PERMIT HOLDERS WITHIN  
19C.

"Sheep gap" give them the  
opportunity to cross  
by halting traffic  
for a given time.

22

group members also proposed the need for wildlife education targeted to miners and other land use permit holders within 19C. All members of the working group supported these ideas to address the objective.

#### **Recommendation 2:**

**The Sheep Working Group agreed that concerns should be raised about the new road construction in conjunction with the Donlin Creek mine gas line. The group further made recommendations regarding the creation of safe crossings for sheep across roads at specific times of the year and targeted education messages to miners and other land use permit holders.**

#### **Objective 3.0: Ensure flexible, adaptive management – Avoid one-size fits all**

Full curl management for some is working fine, but for others it is a management policy that isn't flexible or adaptive. The Sheep Working Group within smaller groups of three discussed what isn't working with full curl management and what makes it unacceptable. These concerns were captured on the yellow cards (sheets 23 and 24). Workshop participants stated full curl management was the status quo, faced challenges with allocation, was more reactive than proactive, catered to trophy hunting, and potentially allowed for more predators on the landscape potentially upsetting the ecosystem. In addition, workshop participants mentioned that in times of extreme population fluctuations there was no flexibility and no threshold or indicators to trigger something different. Participants also mentioned the unknown impact of losing older rams for breeding and genetic diversity particularly in years of decline. During a decline, some participants believed that full curl management changes opportunities for different groups. Finally, sheep working group members expressed that the hyperfocus on full curl management stifles exploration of better alternatives potentially.

When asked what makes them optimistic about full curl management and to explore what is working, groups struggled to come up with ideas. One group stated "nothing". Workshop participants believed it was administratively simple, widely accepted and understood, provided the most opportunities for hunters to be in the field, didn't appear to harm the population based on current data, and guides liked it.

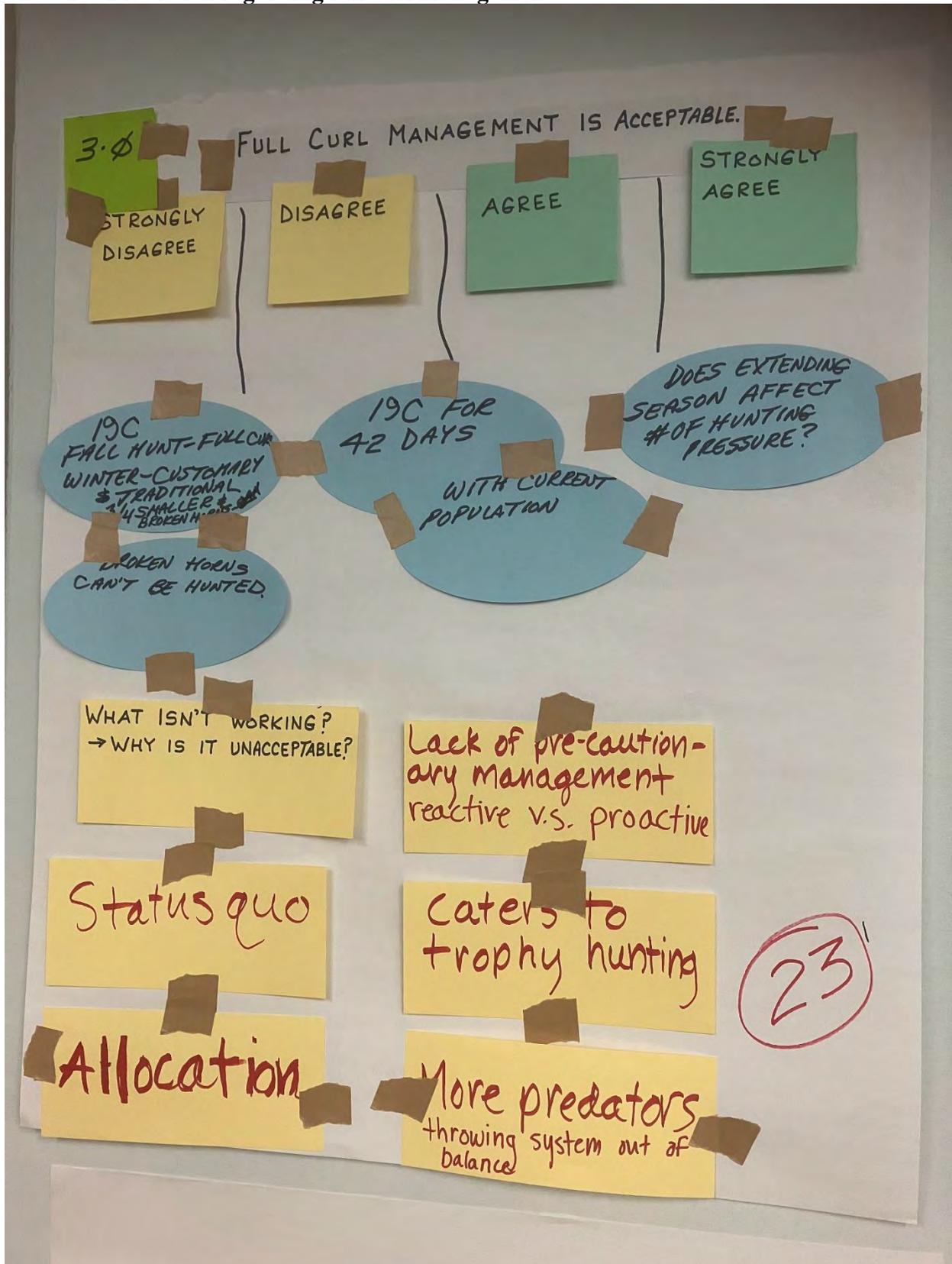
#### **Recommendation 3:**

**The group achieved consensus that at this time for 19C they would like to have something different than full curl management, and they were prepared to work on what that might look like at a later workshop. The group believed there should be specific indicators and were willing to discuss what these indicators might be.**

#### **Recommendation 4:**

**Sheep working group members agreed that there was a need for planned action that would be triggered by characteristics which are not yet identified. Focusing on trends and counts in 19C rather than harvest numbers was a suggested starting point (see sheet 25).**

Sheet 23: Discussion regarding full curl management



Sheet 24: Additional comments regarding full curl management

IT's not adaptable or flexible in times of extreme population fluctuations

under Full Curl no flags went up or triggers were in place to initiate Study Programs & Extra Funding for biological & browse Data.

No threshold or indicators to trigger something different

During Decline, having Full Curl in place changes opportunity for Different groups.

Possibility that larger, older Rams are highly valuable for other intangible factors beyond simply breeding, particularly in times of decline.

Hyperfocus on "full curl" Management doesn't allow for flexibility in harvest strategies as populations ebb & flow

WHAT IS WORKING?  
→ WHY IS IT ACCEPTABLE?

Nothing

Provides the most opportunity for hunters to be in the field.

Administrative Simple

Hunting under full curl doesn't harm the population based on current data.

SHOULD IT STAY OR SHOULD IT GO? 🎵 🎵

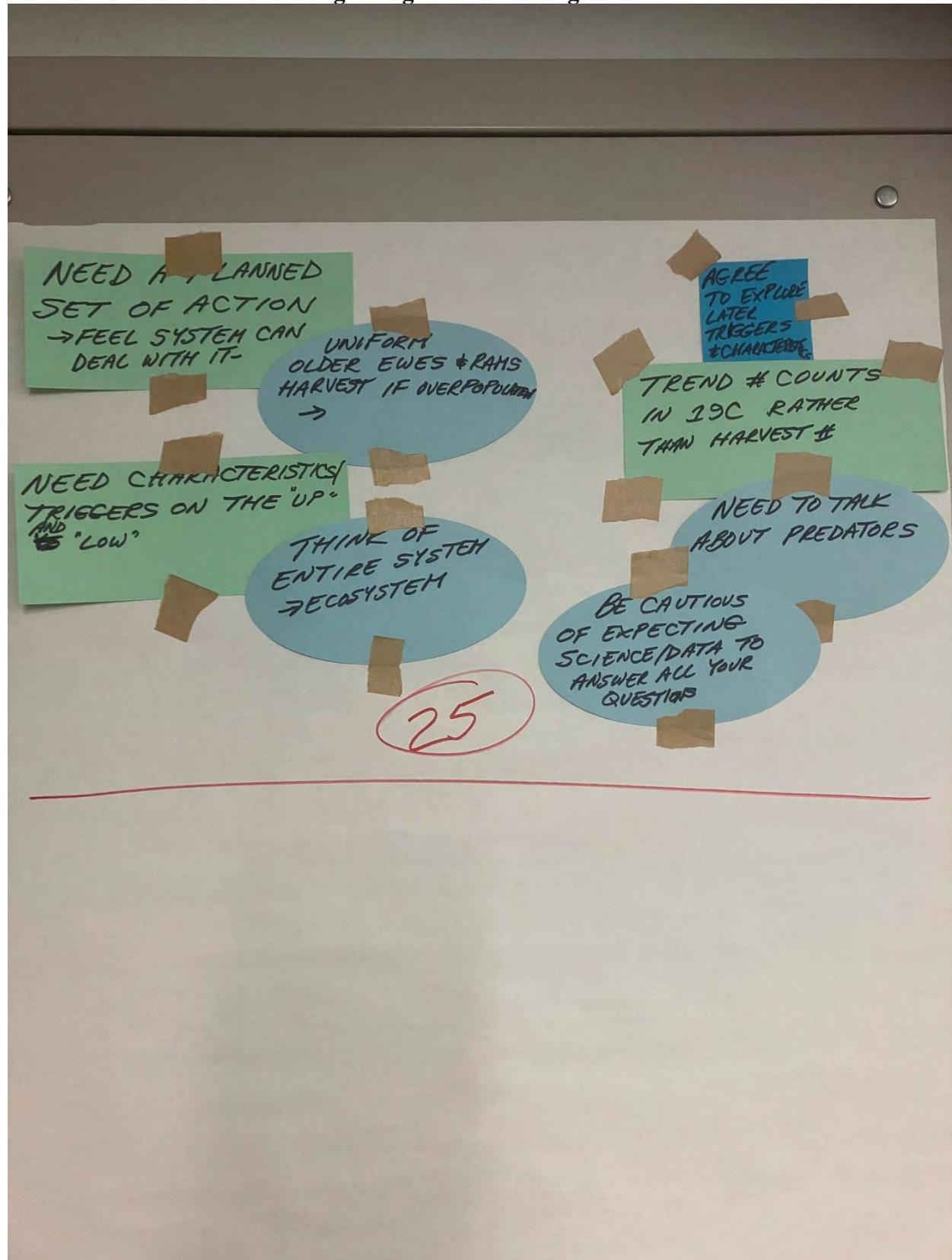
Widely understood & Accepted

Guides like it as, under general harvest ticket/full curl, they are not restricted by permit type or availability.

→ REPLACED WITH WHAT?  
AGREE  
19C  
AT THIS TIME  
WANT SOMETHING DIFFERENT

24

Sheet 25: Further Discussion regarding full curl management



### **Objective 6.0: Increase connection from all segments of society to the resource**

Sheep Working Group members had several ideas on how to better connect segments of society to the resource (see sheets 26 and 27). They felt that 1) hunter education should be expanded to all schools, 2) youth hunting opportunities should continue, 3) increase presence on social media and through radio announcements, 4) ensure adult outdoor adventure programs include a part in the curriculum related to sheep hunting, 5) fund research through selling of Dall sheep merchandise, 6) create an educational game, 7) set up more telescopes and opportunities for sheep viewing and coordinate any communication efforts.

#### **Recommendation 5:**

**The group recommended the development of a coordinated communication strategy between NGOs, Federal and State agencies that clearly identified the target groups, messages and strongest links between beliefs and attitudes to ensure effective programs.**

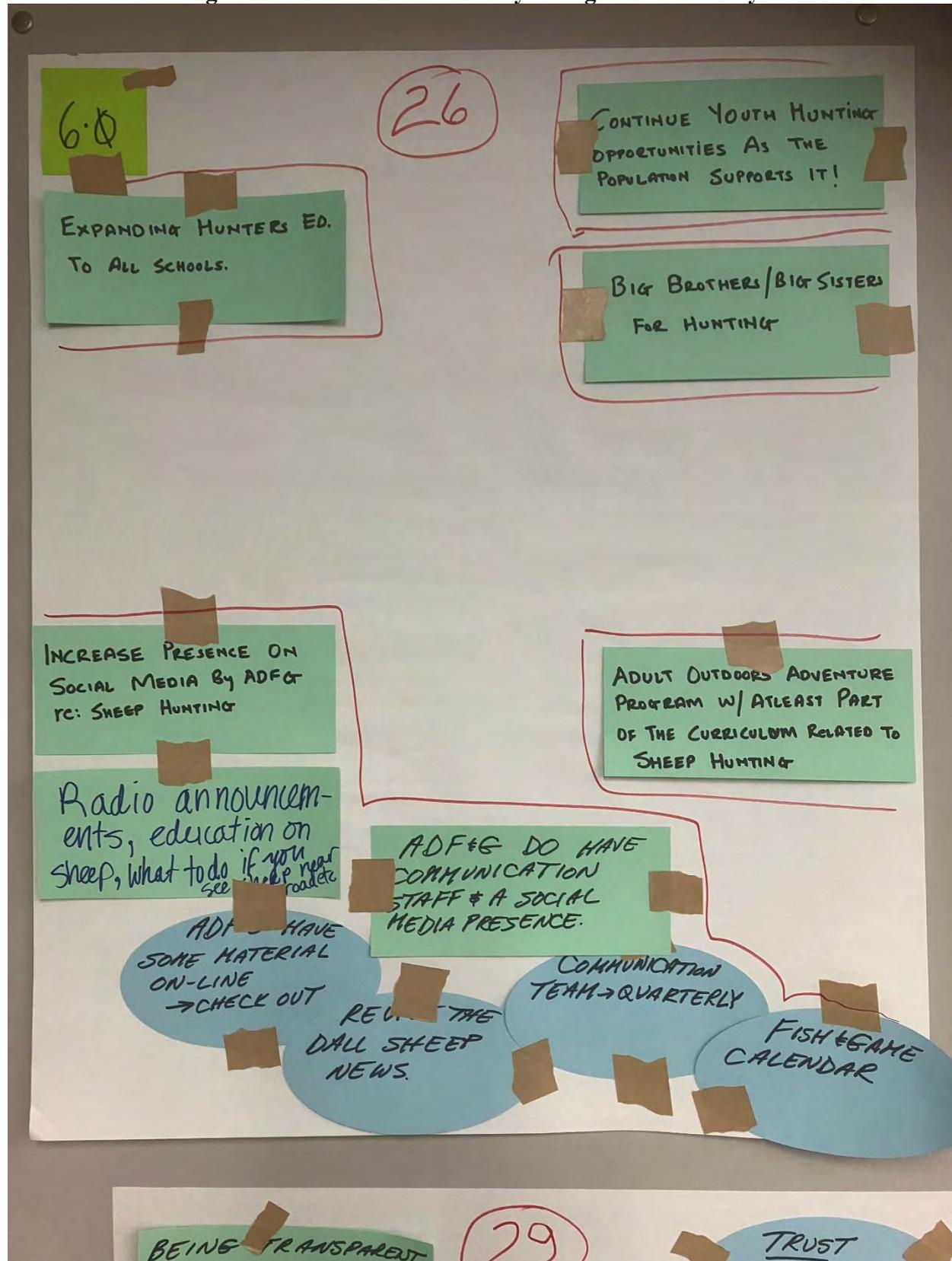
### **Objective 7: Increase trust between all groups and minimize hunter-user conflicts**

The Sheep Working Group members began their discussion around the many types of user conflicts. These can be found on sheet 28. Conflicts often centered around the type of user (e.g., local versus non-local, nonconsumptive vs consumptive user, those hunters with aircraft versus without, archers versus firearms, transporters versus guides). It was believed that misinformation was at the root of many of these conflicts. In addition, the lack of trust between user groups was a key concern; sheep working group members spoke about overcoming mistrust by being transparent, demonstrating honesty, building a relationship fully understanding trust needed to be earned (see sheet 29).

#### **Recommendation 6:**

**All members of the Sheep Working Group committed to building positive relationships with other interest groups, striving for clear communication, being respectful of others and doing what they can to minimize user conflicts.**

Sheet 26: Increasing connection to the resource by all segments of society



Sheet 27: Further discussion on how to connect all segments of society to the resource

Fund research w/ dall sheep shirts, sweaters, swag and make stickers w/ QR code to website to buy

Stickers w/ QR code magazine ad to go to dall sheep info website

ORGANIZATIONS FOR COORDINATED COMMUNICATION.

UNIVERSITY INVOLVEMENT  
→ COURSES, MESSAGE & RESEARCH

WILD SHEEP FOUNDATION, HUNTING ASSOC.

NATIONAL PARK SERVICE

COORDINATED EFFORT  
→ WILD SHEEP INITIATIVE

COORDINATED EFFORT  
→ WILD SHEEP INITIATIVE

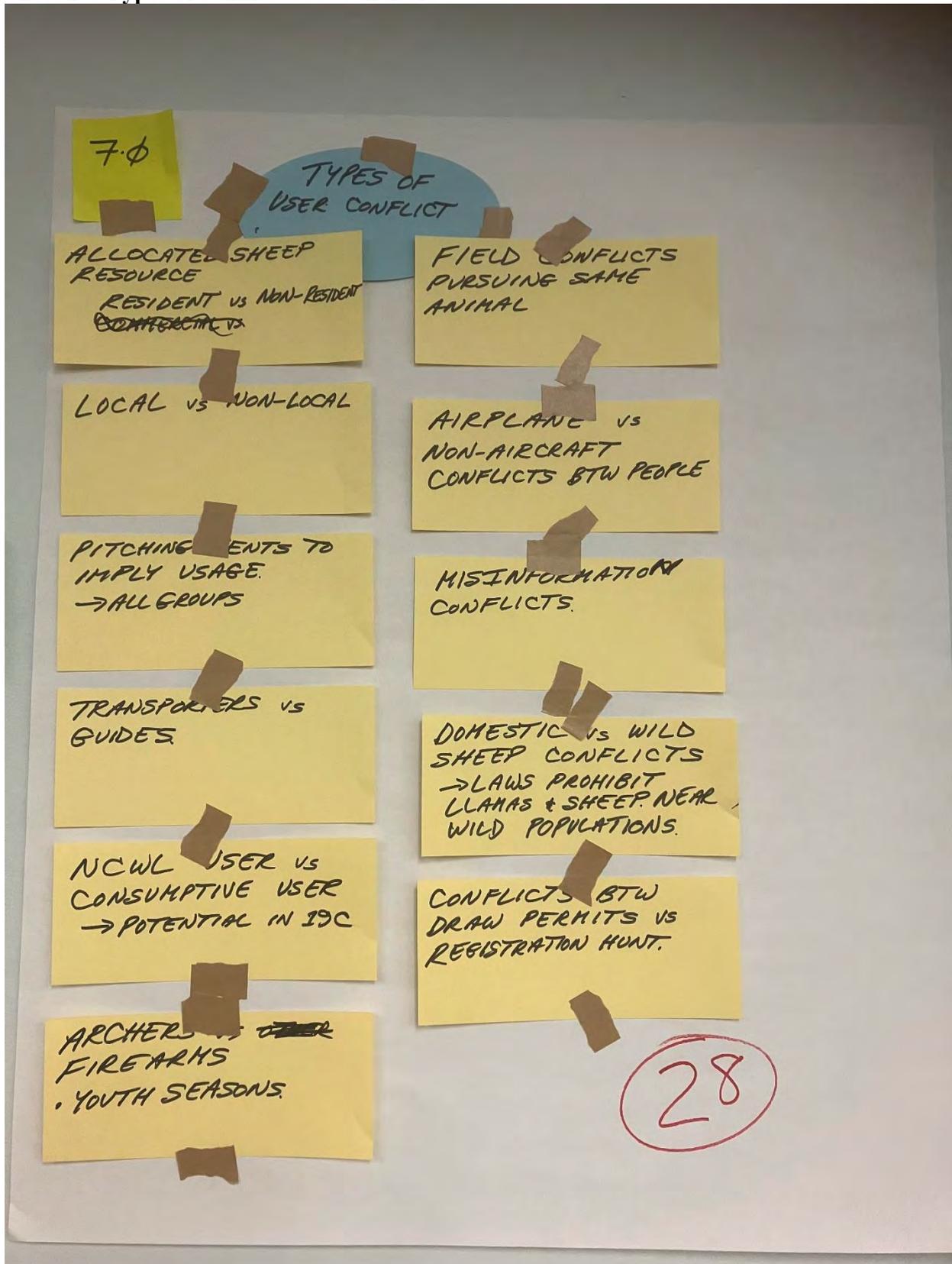
EDUCATIONAL GAME -  
Place spots on floor to jump on, one person is a sheep, hunter, wolf

FIRST STEP:  
WHO ARE THE CONTACTS FOR COMMUNICATION?  
→ ETC.

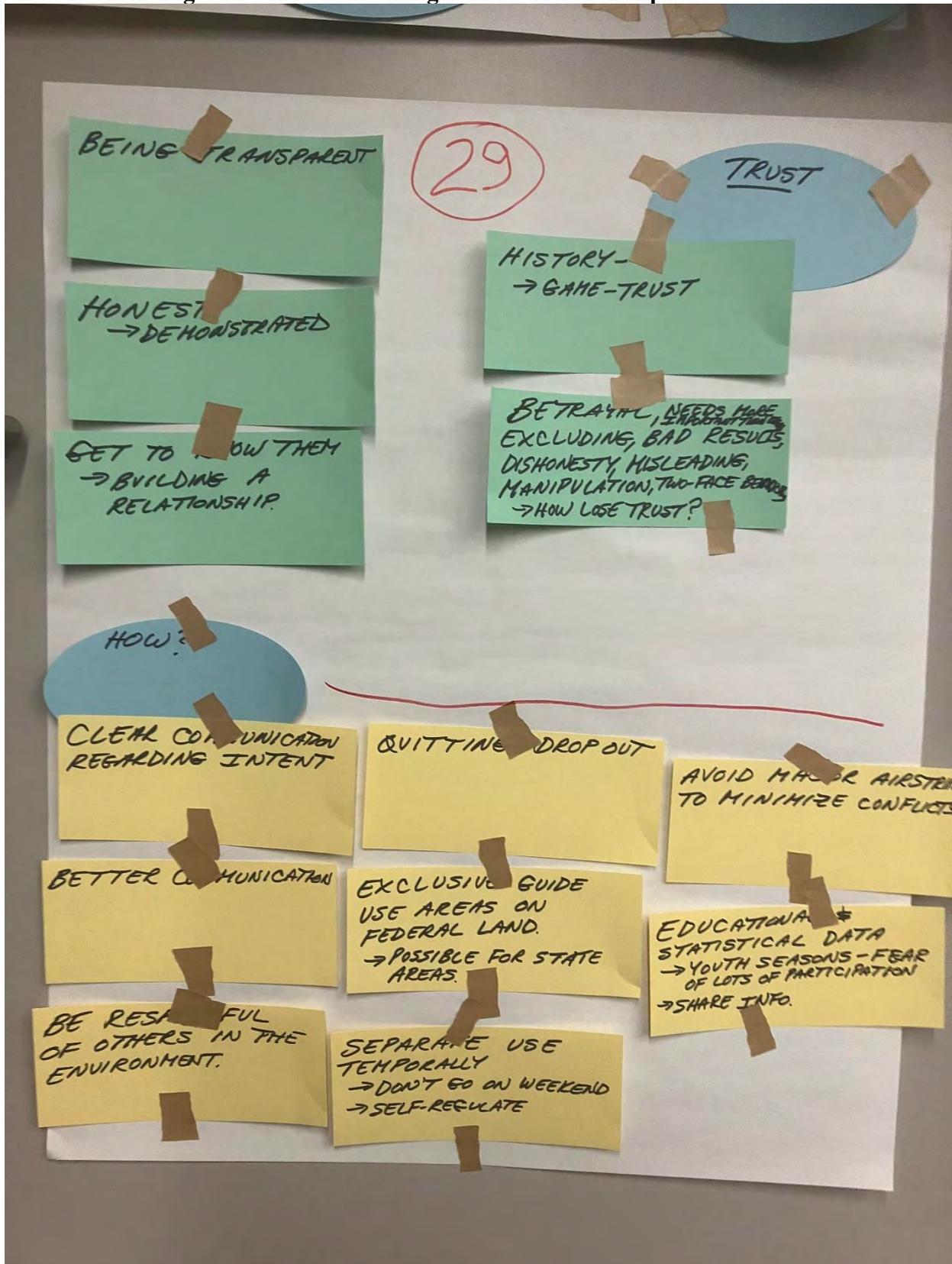
More sheep viewing telescopes, road side, turnagain arm etc.

27

Sheet 28: Types of conflicts between users



Sheet 29: Building Trust and Maintaining Positive Relationships



### **Future Direction/Next Steps:**

All Sheep Working Group members were asked whether there were any key issues remaining that should be addressed (see sheet 30). Individuals spoke of the amount of work to do and the research to understand to effectively complete a management plan and a set of recommendations for 19C. Given uncertainty exists even after learning more about Dall sheep, workshop participants wanted to know how will the group make decisions under uncertainty? There was also a need to understand timelines for the Board of Game process. Members also highlighted the need for a discussion on the role and effectiveness of predator management (see sheet 31).

### **Recommendation 7:**

**The Sheep Working Group understood that they need to make recommendations to the Board of Game at the earliest opportunity, and while they will strive for 100% consensus whenever possible, a simple majority will suffice to make concrete recommendations.**

### **Recommendation 8:**

**All workshop participants despite being incredibly busy believed it would be beneficial to meet again for two days October 17-18, 2024 in Anchorage, Alaska. All members requested Jerry to stay on the committee feeling his contributions were incredibly important and valuable to the success of the sheep management process.**

### **Planning the October 17-18, 2024 Workshop**

The purpose of this two-day workshop would be to prepare a document that could go to the Board of Game for a November 2024 deadline for submissions. Topics for detailed discussion at the October meeting include:

- Overview presentation by Alaska Fish and Game of the current state of knowledge, research in progress, and research direction for Dall Sheep in the State and in Unit 19C.
- Given uncertainty still exists, how will we make the best decisions and recommendations under uncertainty?
- Focus on objectives identified in this report but not yet discussed.
- Full curl management needs to be changed but to what exactly? Explore indicators that could be used to trigger various changes.
- Do harvest allocation issues need to be discussed?
- There are a variety of proposals regarding sheep and sheep management that could be revisited in light of our discussions. How well do the proposals meet our vision?
- Understand and discuss the role of predator control, if any, within 19C.
- Prepare action items to ensure the plan and recommendations are supported by the team and implemented effectively.

Sheet 30: Key Issues that need to be addressed

30

**TIMELINE**  
→ TON OF WORK TO DO BUT HAVE ACCOMPLISHED SO MUCH IN 2 DAYS

**BOARD OF GAME**  
→ HOW LONG PROCESS WILL TAKE?

**NEED DATA IN SO MANY THINGS**  
→ FULL-CURL MGMT FOR EXAMPLE.  
→ HOW MAKE DECISIONS GIVEN UNCERTAINTY

**IF UNCERTAINTY EXISTS, HOW DO WE MAKE DECISIONS?**

Predator control is not as effective as the state leads people to believe, even according to their own game studies.

Don't blame predators for existing. Maybe we create problems i.e. Max sustained yield. They are a keystone species for good reason.

In times of Low Sheep abundance, how much Sub Lead increases or occurs?

Need to make recommendation(s) for 19c

Are We Requiring 100% or Majority to Make Recommendations?

Sheet 31: Future Direction and Next Steps

WHOLE GROUP AGREES FULL CURL MGMT SHOULD BE CHANGED SOMEHOW. → WINDOWSE TRIGGERS

PREDATOR CONTROL IS AN IMPORTANT ISSUE FOR DISCUSSION FOR 19C.

PREPARE THIS DOCUMENT AS A TEAM TO INFLUENCE (NOV. DEADLINE) MARCH 2025

PLAN NEEDS SUPPORT FROM THE TEAM.

31

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NEXT STEPS

DEVELOP ANOTHER MEETING

INTERESTED IN HOSTING IN DENALI → PAT EXPLORE LOGISTICS.

REQUEST TO KEEP JERRY IF POSSIBLE

- OBJECTIVES TO FINISH
- EXISTING PROPOSALS
- PREDATORS
- DATA GAPS
- INDICATOR WINDOWS

OCT. 17-20TH  
THURS FRI SAT SUN  
OCT. 17-18TH Anchorage

## Appendix 1: Written Public Testimony from Alaska Wild Sheep Foundation

ALASKA BOARD OF GAME Unit 19C Dall Sheep Working Group Anchorage, Alaska | June 25 - 26, 2024  
On-Time Comment Index Alaska Wild Sheep

Foundation.....PC01

The Alaska Wild Sheep Foundation would like to commend the Alaska Board of Game and the 19C Working Group for undertaking this vital effort. It is obvious that you have assembled a great team backed by some of the best sheep biologists in North America.

Like many of you, we have listened to numerous potential solutions. Some seem crazy while others appear rock solid. I just returned from a major Wild Sheep Foundation conference in Calgary, AB that had representatives from most of the 19 jurisdictions (states, provinces, and territories) in North America represented. Although Dall and Stone sheep have been hit the hardest throughout their ranges by changes in the weather, the challenges that we face in Alaska are not totally unique. I have included some of the thoughts and ideas from that and other conferences and discussions that I have attended. They are not fully vetted ideas nor are they intended to be directive in nature. Simply, they are thoughts and ideas that might be considered as you explore various solutions to the plummeting Dall sheep numbers in 19C and throughout Alaska.

We are pretty sure that the decline in Dall sheep numbers was not due to any hunting issues so hunting restrictions alone won't solve the problem. Our biologists have told us that if we are lucky a full recovery will take 20 years or so. We have also been told that chances are that we cannot do anything to speed up that recovery. Also, that the recovery is not guaranteed. Common sense tells us that we can only do what we can do.

Based on the above it would seem like our mission is to do everything humanly possible to help ensure and guarantee the natural recovery of Dall sheep throughout their range. Conversely anything short of this and we won't be doing our job. We might also just find that there are other valuable things we should be doing on a continuous basis for Dall sheep management.

Here are the ideas that I have gathered and that others have thrust upon me for the consideration of the Working Group.

**Collaboration.** There are nineteen wild sheep jurisdictions in North America and many of the same problems exist. The technical experts (biologists and project managers) in these areas are more than willing to collaborate, and in some cases already have in the hopes of improving sheep numbers across North America. We should ensure that we coordinate continually with them and consider inviting a few to sit in as part of a good exchange of ideas.

**Resourcing.** Consider developing your plans as if the resources were not constrained. Some solutions could well take millions of dollars over multiple years. Don't be afraid to challenge the State of Alaska and conservation NGOs like ours with coming up with significant funding to support viable plans.

Consider recommending a dedicated funding source for Dall sheep like a sheep stamp for all hunters. There are possible ways around current constitutional restrictions on dedicated funding.

Don't be afraid to fail. We should not be afraid to fail on specific new solutions. We cannot be risk averse. We could try something new and document our results and if necessary, modify the approach or scrap it altogether. This has been the modus operandi in scientific research forever.

Consider detailed mapping of the sheep range and habitat to include on-ground surveys for food and mineral licks. Clearly defined sheep habitat should be a starting point. Identification of critical winter and other exceptional season habitat reliance. This can probably be contracted out.

The sheep habitat is shrinking as tree and/or brush lines move up in elevation based on climate warming and other factors. Consider controlled burns, logging, or commercial brush clearing in selective areas. Great potential volunteer opportunity and again we could use commercial contractors.

Consider starting a nursery herd in Alaska. This will be a big logistical challenge but it is being done in several other wild sheep jurisdictions. Fence off a mountain, eliminate the predators, ensure adequate food and grow healthy sheep. Sounds simple but we know it is not. Much more common among bighorns but probably feasible for thin horn sheep as well. Would also provide a research herd to check other health issues. Collaborate with U of A and other universities.

Enhance naturally occurring mineral licks – being done in several areas in Canada, especially in Stone sheep areas. Focus is on ewes and lambs and increasing recruitment rate and better winter survival. We know that as a minimum our sheep are low on selenium.

Check vehicle use factors especially helicopters. Responsible development of resources is desired but maybe certain restrictions like minimum heights are required and periods of no-fly in certain zones during specific periods are warranted. Focus is on good collaboration with industry might find conservation partners.

We can't change the weather but there might be some mitigation strategies that we can develop like very targeted supplemental feeding or other more creative ideas.

Intensive predator management would seem warranted until there is a complete recovery. This should not be limited to wolves as they are not the predominant sheep predator in several ranges. Some areas are experimenting with the use of drones to dissuade eagles. Eagles are a problem through wild sheep ranges so others are looking for solutions as well.

These are just a few of the thoughts and ideas that we have received and are presented here for your consideration.

Again, we sincerely appreciate and applaud your efforts. You have the full backing and support of the Alaska Wild Sheep Foundation. If we can assist or support your efforts in any way then we stand ready to do so.

Kevin J Kehoe, President Alaska Wild Sheep Foundation

## **Appendix 2: Recorded testimony by Mark Richards**

Dr. Bath, Chairman Burnett and members of the committee, my name is Mark Richards. I'm the executive director of the Resident Hunters of Alaska and I'll just be commenting for our group this morning. I just really want to say thank you to the participants for being willing to be there. This is a really hard time for me and others, we're all doing summer things. I'll be leaving probably late tomorrow to be in the bush for 3 weeks.

But what I wanted to say is I just hope that you guys will consider everything our priority. Our first priority is the sheep, and our 2nd priority is protecting general sheep hunting opportunity for resident hunters. I think you all know this. I think you all know our disappointment that the Board has not taken action to limit non-resident hunters. We would much prefer to have some non-resident hunting than have 19 C completely closed.

I would hope that you would all discuss a passage of the guide concession program and whether or not that is going to affect you know this sheep working group. I know the Board of Game, the Guide lobby, you know the Big Game Commercial Services Board have all pushed for this guide concession program as a solution to our problem. So, seeing as how that has recently passed, I'm just wondering, you know, what this group will be doing. We assume that the Board of Game will choose 19C as the first problem area to establish a guide concession program.

So, the last thing I have is for Dr. Bath. I know I'm not supposed to answer questions, but I'm hoping that this sheep working group, unlike the last one, doesn't base recommendations on 100% consensus. That was the problem with the last sheep working group. We had to have 100% consensus. 80% of the group agreed that non-resident sheep hunters should be limited, and Dr. Brinkman's sheep survey determined that non-resident sheep hunters should be limited as well, and that residents should have a priority. So that's where we're at again. Just thank you, the participants. We wish you good luck and that's all from me