

Appendix 1

Interview Guide

Respondent Information

- Interview ID
- Date and time
- Latitude/longitude
- Community, County
- Sex
- Have you participated previously in a research survey or interview?
- Years lived in this county
- Years owned this property
- Are you a full-year or seasonal resident?
- Property
 - Did you inherit or buy your property?
 - Total acres
 - Forested acres
 - Grazing acres
 - Agricultural acres
 - Own other property in Oregon?

Management Objectives, Plans and Actions

1.0 What are your primary land management objectives?

2.0 Do you have a forest management (or stewardship) plan?

If yes:

2.0.1 How far into the future does it plan?

2.0.2 Does it include a forest inventory?

2.0.3 Did you prepare it, or get help?

2.0.4 If helped, by whom?

2.1 Overall would you say you plan forest management actions far in advance (how far)?

3.0 Which of the following management actions have you taken in the last 10 years?

Precommercial thinning, commercial thinning, ladder fuel removal, ground fuel removal, prescribed burns, forest pest management, timber sale, planting seedlings, slash pile burning, mastication/chipping, other (ask to describe)

3.1 How large of an area did you take these actions on?

3.2 Do you do management work yourself or hire a contractor (or both)?

3.3 Do you know what your reentry time is?

3.4 What are the different forest types on your property?

3.5 What actions, if any, do you have planned on your land in the next 5 years?

If yes: 3.5.1 At what scale?

3.6 Do you actively manage to prevent or control noxious weeds?

4.0 Does the forest products market and economy overall affect your forestry activities?

If yes: 4.0.1 How?

4.1 Have public land management decisions affected you or your neighbors?

If yes: 4.1.1 How?

4.2 How well do you know the folks who own neighboring land?

4.3 Do you know if any of your neighbors have done/are doing active forest or grazing management?

Perceptions of environmental change and adaptation actions

5.0 What do you think makes a healthy forest?

5.1 Have you noticed any parts of your own forest or forest on neighboring land that looks unhealthy? If so, do you know why?

5.2 Do you take specific actions to reduce spread of pests and disease?

5.3 Are you concerned about any particular tree or shrub species on your land, either because of high mortality or because they're encroaching on certain areas?

5.4 Have you had any wildfires on your land or nearby?

If yes:

5.4.1 When did the fire(s) occur?

5.4.2 How large were they and how long did they burn?

5.5 Do you think your forests are at risk of wildfire? How great do you feel the risk of wildfire is on your property?

5.6 Do you take any specific actions to lower the risk of wildfire on your land?

5.7 Has the threat of wildfire changed in any way since you first moved here?

5.8 Do any of your management decisions involve planning for changes in wildfire threat in the future?

5.9 Are you worried about wildfire or insects/disease spreading from neighboring land to your property?

6.0 (If grazing): Have you experienced any challenges getting enough good water for the cattle?

If yes: 6.0.1 When did you have these difficulties, and what did you do?

6.1 (If grazing/agriculture): Have you experienced any problems with drought affecting your forage/crops?

If yes: 6.1.1 When did you have these difficulties, and what did you do?

6.2 (If not grazing/no agriculture): Have you had any problems associated with drought since you've lived here?

6.3 Are your reservoirs, wells or ponds different levels than in the past?

If yes: 6.3.1 When? What did you do?

6.4 Are you concerned about decreased water availability in the future?

If yes: 6.4.1 Why?

6.5 Are you at all concerned about the effects of your neighbors on your water supply or water quality?

If yes: 6.5.1 Why?

6.6 Have you had any problems with flooding since you lived here?

If yes: 6.5.1 When? What did you do?

6.7 Have you noticed more or less snow over the years, or snow melting at different times since you've lived here?

If yes: 6.7.1 Is this a concern for you?

7.0 Have you noticed any changes in temperature in this region since you've lived here?

If yes: 7.1.1 Is this a concern for you?

Beliefs and attitudes regarding climate change

8.0 Do you think that climate change is happening? Why or why not?

8.1 Do you think climate change is affecting temperatures, precipitation, drought, or insects and disease on your property? Overall in eastern Oregon?

If yes: 8.1.1 Do you think this will become a bigger management challenge in the future? Why or why not?

Engagement and Resource Needs

9.0 Have you participated in any activities with OSU Extension Service, stewardship organizations or forest collaboratives in the last 5 years, like workshops or meetings?

If yes: 9.0.1 How often do you participate?

9.1 If you had a question about your forest who would you call?

9.2 Do you get any regular newsletters from forest management or agriculture groups?

9.3 Do you need any additional resources to manage your land differently or better than the way you do now?

9.4 Are there any other issues you'd like to talk about?

9.5 Do you know anyone else who might be interested in participating in this research?

Demographic Information

- Age
- Current occupation
- Past occupation
- Highest education level attained
- Do you plan to leave this in the next 5 years?
- Do you know if you will eventually sell your land or pass it on to someone?
- In terms of your political views, do you consider yourself a Republican, Democrat, or Independent? If Republican, do you support the Tea Party?

CODEBOOK: Climate Adaptation and Non-industrial Private Forest Owners in Eastern Oregon

Codes corresponding to outcomes:

ACTNS – forest management actions taken in last 10 years

- PCT – Pre-commercial thinning
- CT – commercial thinning
- TIMSALE – timber sale
- GRNDR – ground fuel removal
- LADR – ladder fuel removal
- PLBURN – slash pile burning
- CHPNG – chipping slash and spreading/taking away
- INDTR – removal of individual dead/diseased/infested trees
- RXBRN – prescribed burn
- REFOR – reforestation: planting seedlings either to supplement natural regeneration or as restoration following wildfire/logging

EXTNT – extent of active management on property

- WHLPROP – whole property
- PROPSECT – large section of property
- STAND – stand-level active management
- INDTRL – individual tree-level management

PLNACTNS – planned future actions

- NOACT – no actions
- MAINT – maintain outcome of past treatments
- CONT – continue past treatment actions elsewhere on property/re-enter same location at a later date

FMP – have a forest management plan

- HQFMP – high quality FMP written within last 10 years with forest inventory
- LQFMP – low quality FMP, either outdated or partial (missing forest inventory)
- INFMP – informal FMP – either “in my head” or otherwise not formalized
- NOFMP – no forest management plan

PLNHORZN – planning horizon

- 30PLUS – plan more than 30 years into the future
- 20TO30 – plan twenty to thirty years into the future
- 10TO20 – plan ten to twenty years into the future

- 0TO10 – plan zero to ten years into the future
- OPP – take action spontaneously as opportunity arises

ADPTN

- IMPADPT – implemented climate change adaptation action
- SUGG – adaptation action suggestion/intention
- INTADPT – implemented/suggested adaptation is climate change-motivated (intentional)
- INCADPT – implemented/suggested adaptation is not climate change-motivated (incidental)
- CCIMPF – may consider adaptation options in the future when climate change impacts appear
- TIMBD – concerns about maintaining timber density while also keeping trees healthy
- NOCHG – would not change forest management practices regardless of climate change

Codes corresponding to subjective barriers to adaptation:

BELV – belief in anthropogenic climate change

- NOCC – there is no climate change occurring
- DKBEL – do not know what they believe/cannot say
- BELVDK – believe it is happening but do not know why
- NATCY – it is a natural cycle
- ANTHR – it is anthropogenic climate change
- ANTHNAT – it is a combination of natural cycles and anthropogenic climate change

PRCV – perceives/experiences local climate changes

- WRMG – perceives warming locally
- DRYG – perceives more frequent drought
- LOSNW – lower snowpack in recent years

FIRERSK – self-assessed risk of wildfire on own property

- NORISK – not at risk of wildfire
- LORSK – low risk of wildfire
- MEDRSK – medium risk of wildfire
- HIRSK – high risk of wildfire

INCRSK

- YINDRGHT – yes, wildfire risk is increasing because of drought
- YINSUPFAIL – yes, wildfire risk is increasing because of fire suppression failure
- YINC – yes, wildfire risk is increasing but I am not sure why

- NOINC – no, wildfire risk is not increasing

CCIMP – ways in which climate change will impact forests in eastern Oregon

- INFDEF – information deficit/uncertainty; climate change is happening but cannot predict what local impacts will be
- DRTSTRSS – will cause drought stress
- INCBUGS – anticipate more insect and disease issues
- INCFIRE – anticipate more large wildfires in future
- SPP – may change which species can live where

Codes corresponding to structural barriers to adaptation:

TIMBMRKT

- NOTIMR – timber markets do not impact management
- MILLSHT – Mill shutdowns have increased hauling costs or otherwise raised costs (e.g., no competition between mills so log prices are lower)
- HAULCSTS – haul costs impact management (e.g. high price of diesel, high pay for truckers)
- LOGPRIC – log prices too low
- MINVOL – forest owners has too little volume to sell to a mill
- NOMRKSMD – no market for small diameter timber

RSRCNEEDS – resource needs

- MONEY – need money for adaptive management (e.g. grants, cost-shares etc.)
- TIME – need more time to do management
- EQUIPMENT – need new/different equipment (e.g. to rent, hire or grants for buying)
- LABOR – need assistance performing actions
- EDUCATION – need more/different education on management strategies
- BETTERMRKTS – need better log markets to provide economic incentives for management
- TOPO – topography is too challenging to treat

NETWRK – organizations/networks individual engages with to gain resources

- OSUEXT – OSU Extension
- ODF – Oregon Department of Forestry
- PERSEXP – Personal experience (self or close family/friend)
- NRCS – Natural Resource Conservation Service
- OSWA – Oregon Soil and Water Association