

# ***Stephanie Wood***



*At 5,700 feet elevation, cold winters are the norm for Virginia City, but that doesn't bother Stephanie Wood. She gets most of her space heat from the almost-daily sunshine coming through her large south-facing windows.*

## **Passive Solar Log Home in Montana**

# **7 Unbreakable Passive** **Solar Rules**

- 1. Orient the long axis of your house south - plus or minus 7 degrees of south.**
- 2. Have enough glaze (glass) on the south – I have 200 sq ft of glazing to heat 800 sq ft of floor space**
- 3. Use a 24 inch overhang on your roof.**

# **7 Unbreakable Passive Solar Rules**

- 4. Insulate, Insulate, Insulate**
- 5. No cathedral ceilings!! A maximum of a 9 foot flat ceiling will work.**
- 6. You will need some kind of heat sync or storage – a trombe wall, black 55 gallon barrels, or horizontal rock storage**



# **7 Unbreakable Passive Solar** **Rules**

**7. Beware of north or North East windows!!**

## **Extras:**

- 1. Put all your plumbing on an inside wall.**
- 2. Use compact fluorescent bulbs**

# **7 Unbreakable Passive Solar Rules**

- 3. Beware of “Ghost Power” losses in on demand electronics**
- 4. Windows that open on the east and west are good!! House tends to over heat in the spring/fall because of sun angle.**
- 5. House Insurance – you need a furnace or electric panels to qualify. No wood stoves**

# **7 Unbreakable Passive Solar Rules**

- 6. Fire Insurance – you'll need a metal roof or Class III fiberglass shingles to qualify**
- 7. Investigate State and Federal Tax Credits**
- 8. An easy way to drain your house is a good idea too.**

# **7 Unbreakable Passive Solar** **Rules**

- 9. Skylights that open are very beneficial**
- 10. Double glazed windows get 80% of solar gain.**
- 11. Trombe walls only stores one nights heat.**
- 12. Over glaze the Southside and open a window.**
- 13. Use a 20-30 gallon hot water heater – quick recharge is a good idea.**

