

Memo

To: Front Royal Planning Commission

From: Bill Barnett, Consultant To: FRLP

CC:

Date: 7/7/2010

Re: Subdivision Ordinance

Environmental Issues that should be considered in a new subdivision ordinance

I have spent time studying many state and U.S. government guidelines, ordinances, and proposals for environmentally friendly communities and the one thing that distinguishes “green communities” from “traditional” communities is **flexibility**.

Traditional subdivision ordinances are mostly engineering specifications designed to create uniformity in building lot size and layout and efficient removal of run-off water and vehicular traffic. These ordinances intentionally allow little deviation from the norm so they can be easily understood by developers and to an extent, the public. They strive to be, albeit notably imperfect, but for the most part, “black and white” for planning staff to administrate and the planning commissions to oversee.

The result is neatly laid out subdivisions with uniform setbacks and for practical reasons, mostly uniform lot sizes. The lawns and driveways all slope to the streets with curb and gutter to channel run-off water with all its components efficiently to the nearest stream. The wide streets allow on-street parking on both sides and are bordered on both sides by sidewalks which prohibit bicycles by ordinance.

Green or Environmentally Friendly subdivision ordinances are a mixture of traditional engineering specifications with conceptual goals. They need to take into consideration “the lay of the land”, managing water to minimize run-off, and allowing flexibility in lot size, building orientation, and setbacks.

These ordinances allow creativity and the ability to make use of the latest breakthroughs in technologies. The goals look for designs that protect our watershed from contaminants, reduce water use, reduce energy use, and allow building and lot orientation to maximize use of solar and geothermal (closed loop) systems.

Green or Environmentally Friendly Subdivision Ordinances

- Minimize surfaces impermeable to water. They are engineered to allow water to be reabsorbed where it falls, thus reducing run-off and allowing the earth to filter out contaminants before it reaches streams. Less water is also taken out of the river to irrigate because it was reabsorbed.
- Whenever possible, replace sidewalks on both sides with bike and walking paths on one side only.
- Allow maximum flexibility in setbacks and building orientation to facilitate rooftop solar and closed loop geothermal.
- Make sure ordinances do not restrict solar panels, future rooftop solar collector coatings, and multiple wells for closed loop geothermal, or rainwater collection systems that have overflow diversion incorporated.
- Consider protecting solar access from future development or landscaping.
- Since technology and public awareness is changing at such a rapid rate, consider reviewing/updating the ordinance at regular intervals so that updates become the norm instead of an all-consuming process for staff and planners.