EXEMPT WELLS IN MONTANA
Used & Abused

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Gallatin Local Water Quality District

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POSITION STATEMENT #1

- ✓ The use of exempt wells is appropriate in lots of situations, but there is a problem with the use of multiple exempt wells as a combined appropriation without the need for permitting or evaluation of potential impacts to water resources and existing water users!

MCA 85-2-306

(3) (a) Outside the boundaries of a controlled ground water area, a permit is not required before appropriating ground water by means of a well or developed spring with a maximum appropriation of 35 gallons a minute or less, not to exceed 10 acre-feet a year, except that a combined appropriation from the same source from two or more wells or developed springs exceeding this limitation requires a permit.

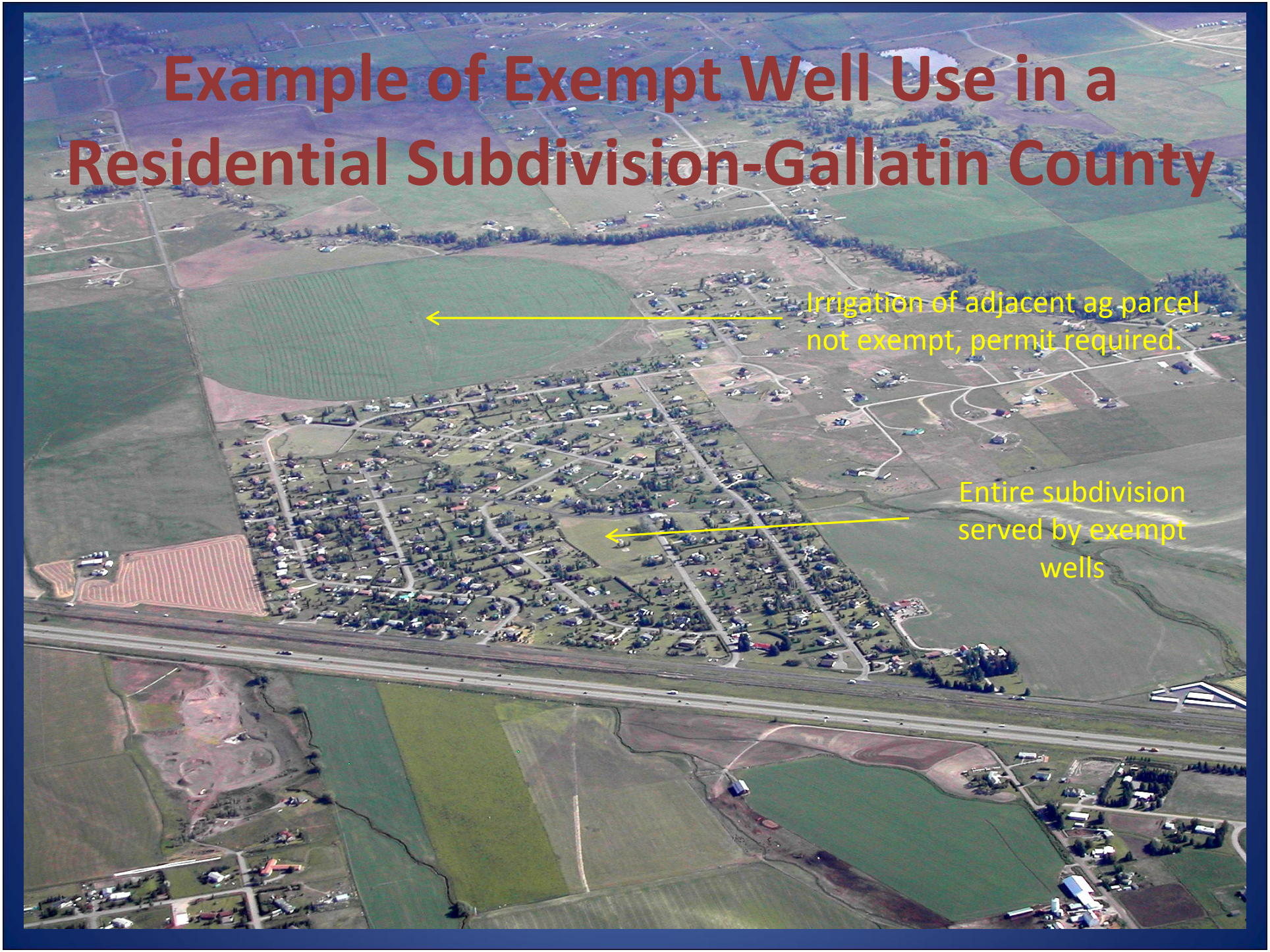
MCA seems to have the appropriate language to address the exempt well issue!

The Problem? AMR 36-12-101 (13)

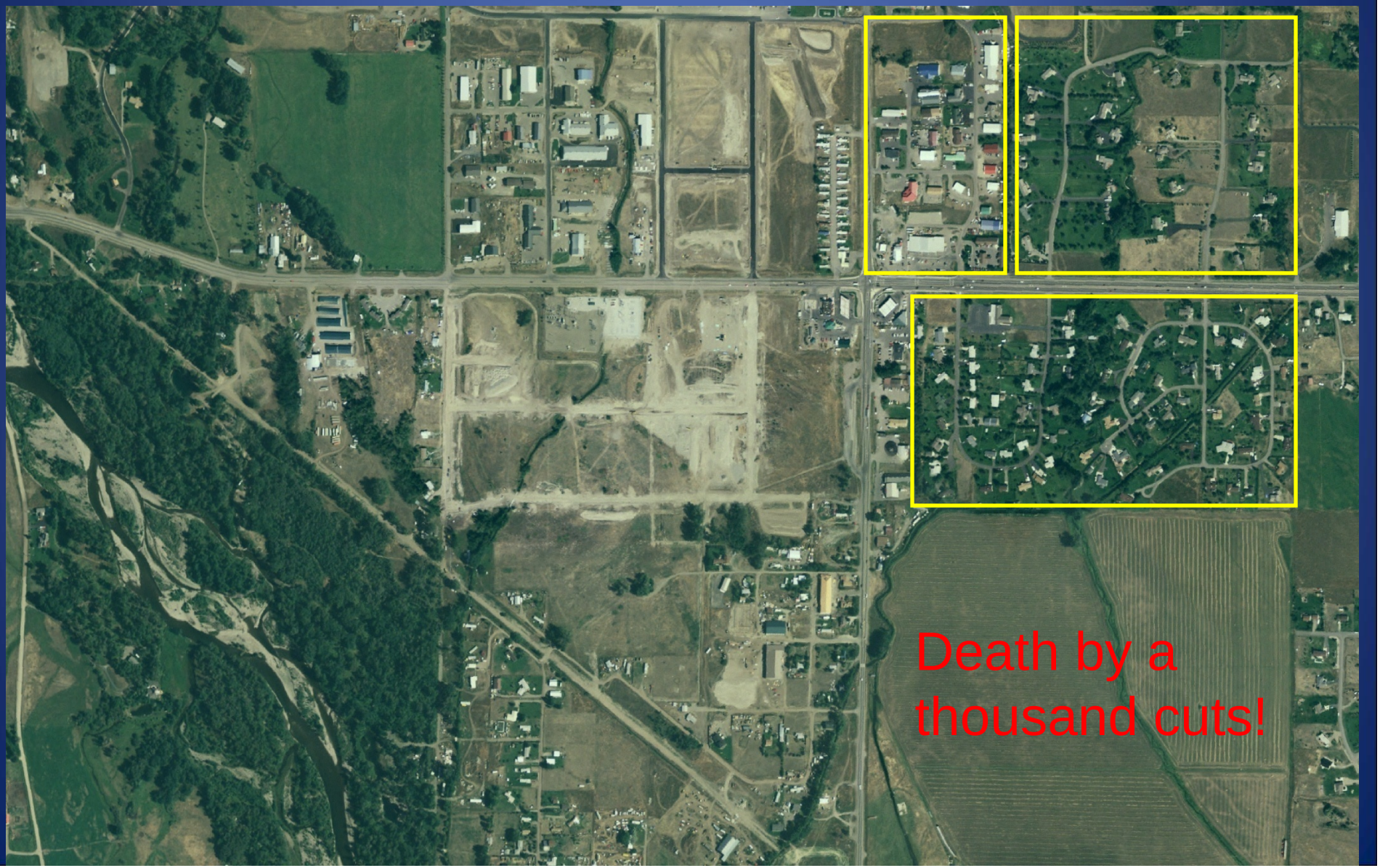
- The 1993 DNRC amendment to the definition of combined appropriations, requiring combined appropriations to be physically connected is the real problem!

“combined appropriation" means an appropriation of water from the same source aquifer by two or more groundwater developments, that are physically manifold into the same system.

Example of Exempt Well Use in a Residential Subdivision-Gallatin County

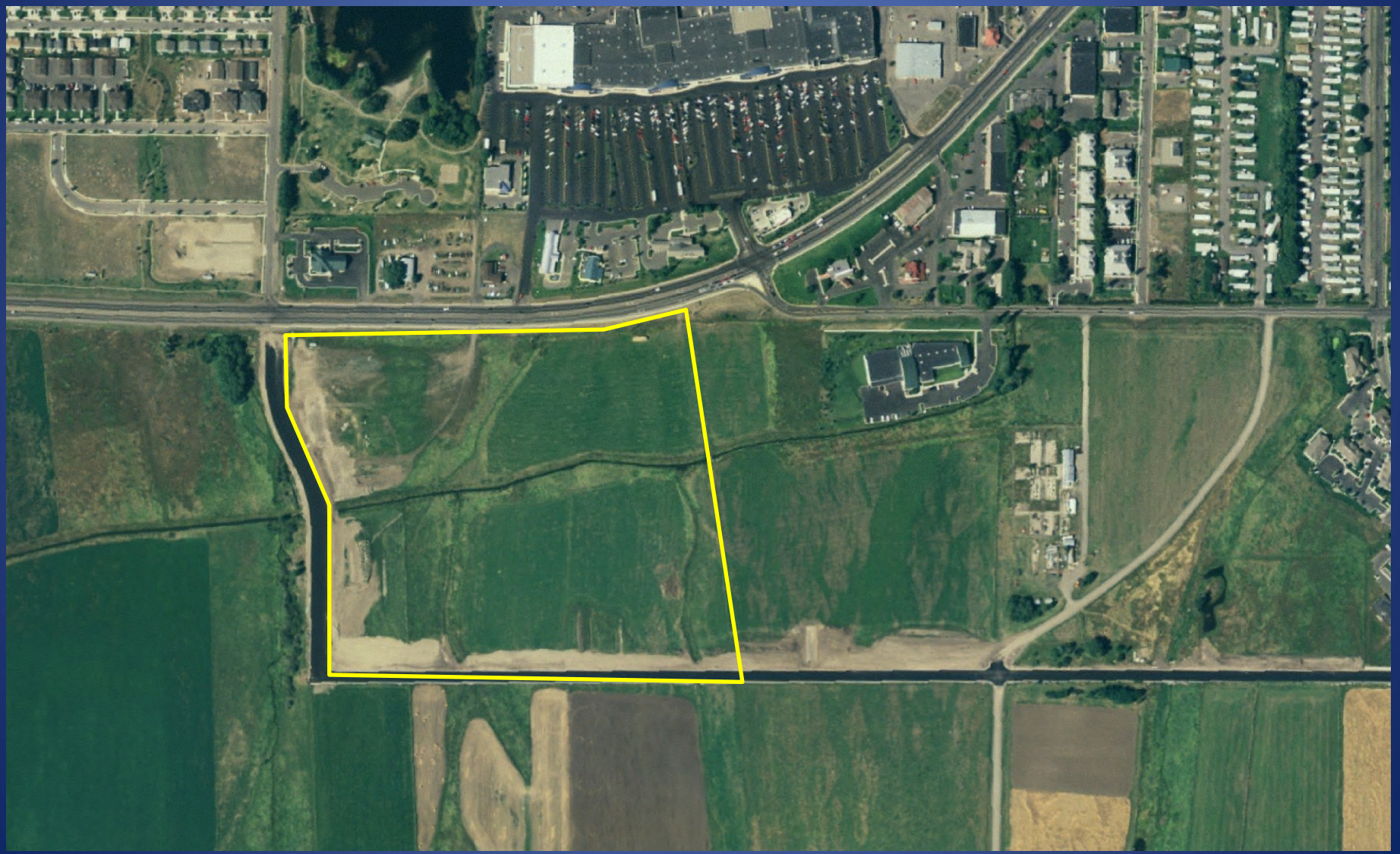


Example of Multiple Subdivisions Using Exempt Wells in Gallatin County.



Example of Combined Appropriation from Exempt Wells for Commercial Development Irrigation

Predevelopment of Commercial Lot



Gravel Pits Can Also use Exempt Wells

Gravel pits may also use multiple exempt wells for operations.

Not as significant a problem as large subdivisions.

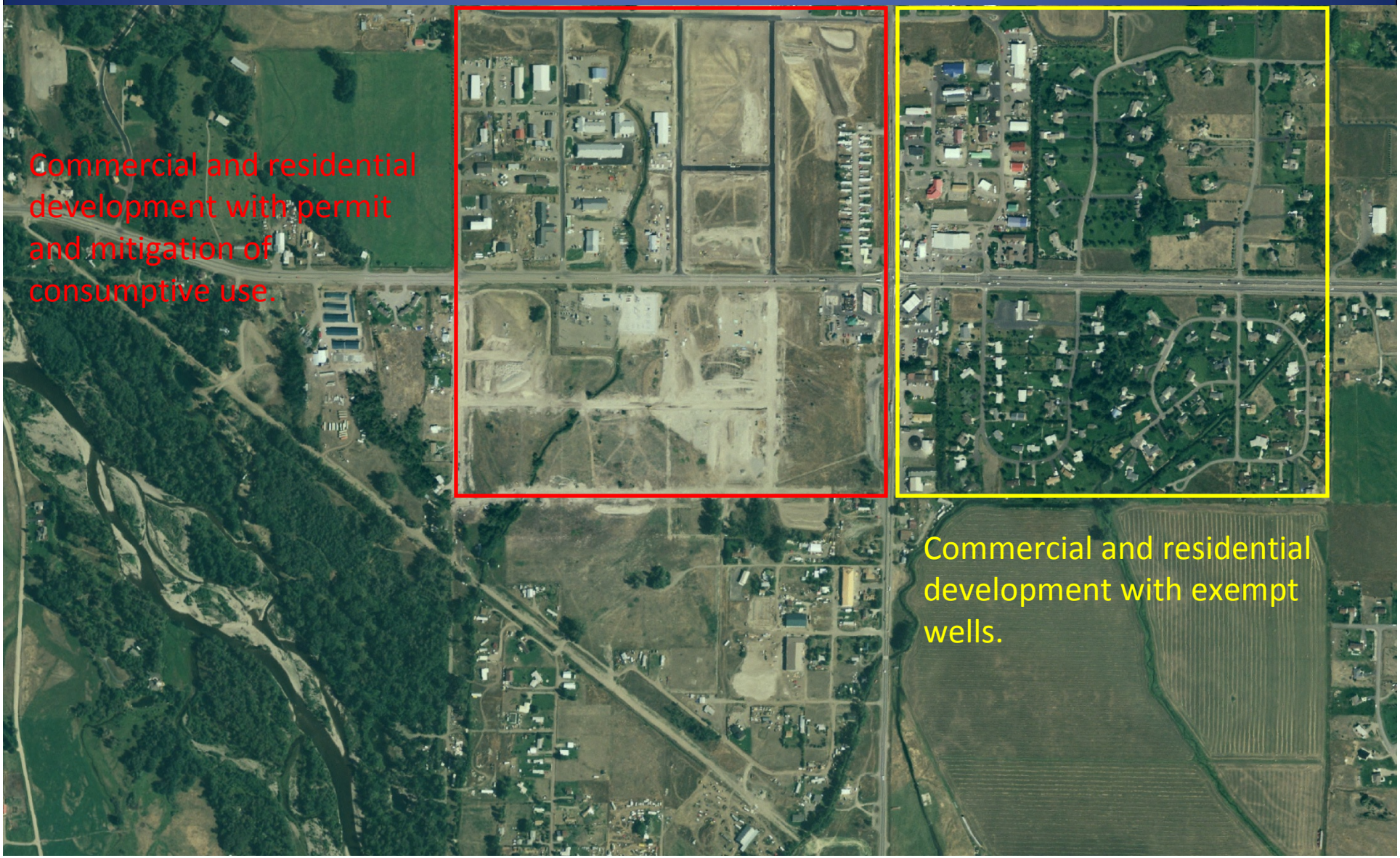
A related, unpermitted consumptive use of water is the evaporative loss of ground water from ponds created during the gravel mining process!

POSITION STATEMENT #2

The issue with use of multiple exempt wells to appropriate ground water is not so much the use of individual wells vs. a centralized water system, but rather the disparity with accounting for the potential impacts to water resources and existing water users!

Note: There are some public health issues associated with use of individual wells vs. central public water supply wells!

Is There a Difference?
Is it fair?



POSITION STATEMENT #3

The focus for determining the impacts to water resources from any ground water appropriation should be on the **consumptive use** of water and the impacts of that use on ground water and surface water resources, and existing water users, regardless of how the water is appropriated!

Evaluating Consumptive Use of Water
A Major Subdivision Example

- A proposed development
  - 70 lots on 100 acres, 1-acre lots, individual septics
  - 10 acres of open space, with 6 acres irrigated
  - 4 acre pond in open space for recreation and fire
  - Pond naturally filled by shallow ground water
  - Exempt wells proposed for lots and open space
- How much water will be consumptively used by the development?

Indoor Consumptive Use

- 70 homes, 250 gpd domestic use (19.6 acre-ft)
- 95% return flow to aquifer via septic systems.
- 5% of indoor use is consumptive (1 acre-ft).

- Conclusion
  - Indoor consumptive use is not an issue.

Consumptive Use for Irrigation and Evaporation from the Pond

- Assume ½ acre/lot irrigated (35 acres).
- Annual consumptive use about 1.5 acre-ft/acre.
- 53 acre-ft consumptive use for lot irrigation.
- 6-acre open space irrigation will consume about 9 acre-ft
- 4 acre pond will consume about 8 acre-ft
- Conclusion
  - The subdivision will consumptively use 71 acre-feet per year, without a permit, which is significant.


QUESTIONS ???