LandFlow Subcommittee Notes
July 6, 2017

Questions/Requests

1. How much has been spent over the last 40 years?
    a. Answer-Close to 45 million
2. Study on cost of bridge? Mo
3. Hydrology/Geotech Engineers
4. How to prioritize areas? Are engineers going to do that? Yes, "bang for buck"
5. Are we going to see as developed? Yes

What major actions do you propose about the land flow and the interior?

1. Low spots minimized
2. Natural Springs
3. Regular groundwater
4. Water into fissures comes also from drainage channels-How to do away with the fissures?
5. More current study on ground water coming from up above (VOTES=6) related to #28
6. Current geological study on current level of saturation
7. Number gallons of water from septic tanks _____ lines (than water imported for use)
8. Land movement comes after rains; recognize this is biggest source of land movement
9. 4 ft./3ft drainage pipes: Go back to study that determined to put those in and then decide not to maintain them (~1984)-related to #31 (VOTES=8)
10. Consider maintenance costs with all solutions (VOTES=3)
11. Like board survey on where water is in soil; how much water is absorbed into the clay; how much is free water? (VOTES=9)
12. Infrastructural project that captures and treats our sources of water for re-use (not chucking it all). Along with lines of city's capturing storm water (VOTES=2)
13. Organized analysis what all of this is going to cost and potential maintenance-Macro cost (VOTES=1)
14. Insight into debt service
15. How much <u>income</u> could we possibly capture from water re-use?
16. Project life cycle cost and potential revenue (VOTES=2)
17. Is getting rid of free water good enough? (Science on this?) That clay still provides mechanism for slide to move? (VOTES=1)
18. Are we looking at clay as plastic medium-slick surface factor of clay?
19. Is Douglas 2013 study still valid?
20. Could we get a short reading list?

21. Eliminate all septic systems that contribute (VOTES=2)
22. Pick a small area and do a complete hydrology study that you could expand (VOTES=2)
23. Plans and specs-1984 relocation abatement project made available-what was originally done; why it failed; and solutions different from those (VOTES=2)
24. Hydrology and drainage to protect roads, hiking trails, and area
    - Spend some money even if it doesn't slow the slide: How much can we afford?
25. Pick an area cover with a tarp and see what effects on surface area (VOTES=2)
26. There is a reading list (get to it from home page/PGB)-related to #20; request for the link to emailed to #4 meeting attendees? (Yes, Deb)
27. Preserve the preserve (VOTES=7)
28. Stopping the water from homes and landscape up top-rainwater (VOTES=6)
29. Ongoing working relationship with other cities up top (above the slide)
30. Capture water before it come (from canyons) and french drains (VOTES=7)
31. Look at water feeding Isshibashi Lake-from Paintbrush Canyon; catch facility (VOTES=10)
32. Do something with 2 springs(VOTES=1)
    - Analyze foot markers
    - Traced from Rolling Hills
33. Is there more bang for the buck with certain water sources than others?
34. Is it possible to use series piezometers to protect public in dynamic areas? (VOTES=4)
35. More rain at top than below
36. Different color dye injections at different points to see where water goes
37. Is water the only attributing factor? Or is road and traffic? If so, how much (weight)?
38. Could we set up dialogue for input/collaboration with Rolling Hills (VOTES=6)
39. French drain at bottom of Alta Mira Canyon and take a lot of water out of that area-French drains; fairly inexpensive and _____to determine bedrock first (ALL the Canyons)