

PUBLIC COMMENT REGARDING PROPOSED PCDSC § 2.150.300 – HILLSIDE
DEVELOPMENT by Rodney McManamy

I support reasonable hillside regulations addressing genuine concerns involving drainage, erosion, slope stability, flooding, and public safety. However, I believe the proposed Hillside Development Ordinance needs substantial revision before adoption.

My primary concern is that the proposed ordinance does much more than regulate unsafe grading on steep terrain. It creates a new cumulative disturbance limitation that can dramatically reduce the usable portion of existing legally created parcels, particularly larger rural parcels, even though those parcels were created, purchased, and in many cases partially developed under regulations containing no comparable parcel-wide disturbance limitation.

While one stated purpose of the proposed ordinance is to preserve Hillsides and Ridgelines as scenic resources, much of Pinal County's hillside and ridgeline terrain has already been developed under existing regulations. The burden of preserving what remains should not fall disproportionately on property owners who happened to leave their land undeveloped or only partially developed.

For that reason, Pinal County should follow the approach used by the Town of Payson and provide that properties or parcels legally established before the effective date of this ordinance are not required to conform to the new Hillside Development standards unless they are subsequently divided, reconfigured, or replatted.

Pinal County has also experienced extraordinary residential growth, much of which has resulted in the development of large expanses of desert that possess scenic and environmental value of their own. If preservation of scenic character is a principal justification for these regulations, the County should explain why Hillsides and Ridgelines are being singled out for substantial new restrictions while extensive non-hillside desert lands continue to be converted to development.

There should be a consistent public-policy basis for imposing significant new limitations on existing private property. Scenic value does not exist only on slopes. If the County has historically accepted the loss of substantial desert landscapes as part of accommodating growth, it should carefully justify why owners of the remaining undeveloped hillside parcels should now bear a disproportionate share of the County's scenic-preservation objectives.

The County should first examine the actual percentage of property affected by the proposed 35-percent-or-20,000-square-foot limitation, compare that limitation with Pinal County's own existing use of a 20,000-square-foot grading envelope in cluster subdivisions,

and then consider following the Town of Payson's approach by applying these new hillside restrictions prospectively to newly created or reconfigured parcels.

1. RECOMMENDED OVERALL APPROACH

I respectfully recommend that Pinal County make the following changes before adopting § 2.150.300:

1. Apply the new Hillside disturbance limits prospectively to parcels created or reconfigured after the ordinance's effective date, using an approach similar to the Town of Payson.
2. Protect existing legally created parcels from retroactive imposition of the new aggregate disturbance limitation while continuing to apply generally applicable health and safety regulations.
3. Reconsider the fixed 20,000-square-foot ceiling or provide a proportional standard that does not reduce allowable disturbance to approximately 18 percent of a 2.5-acre parcel, 9 percent of a five-acre parcel, and 4.6 percent of a ten-acre parcel.
4. Explain the factual and engineering basis for applying a 20,000-square-foot limitation to existing parcels when Pinal County's existing use of a comparable grading envelope is associated with planned cluster subdivisions in which the restriction is established during subdivision design and shown on the plat.
5. Exclude swimming pools from the disturbance calculation consistent with Pinal County's existing treatment of pools under CR-3 zoning.
6. Exclude finished driveway surfaces, consistent with the approach used by the Town of Payson.
7. Exclude restored septic-system areas, restored underground utility trenches, and other temporary construction disturbances.
8. Exclude or provide credit for engineered retaining walls, drainage structures, and erosion-control improvements required to stabilize the property and protect neighboring land.
9. Define the numerical limitation in terms of permanent hillside alteration rather than an overly broad definition of every activity that temporarily disturbs soil.
10. Before relying substantially upon preservation of scenic Hillsides and Ridgelines as justification for restrictions on existing parcels, quantify how much qualifying

hillside and ridgeline terrain remains undeveloped and evaluate the proposed restrictions in light of Arizona's Private Property Rights Protection Act.

2. THE 20,000-SQUARE-FOOT CAP HAS A DISPROPORTIONATE EFFECT ON LARGER PARCELS

Proposed § 2.150.300 provides that disturbance on applicable hillside terrain is limited to 35 percent of gross lot area or 20,000 square feet, whichever is less.

The practical effect is:

Lot Size	Total Lot Area	Proposed Maximum Disturbance	Percentage of Entire Lot
1 acre	43,560 sq. ft.	15,246 sq. ft.	35.0%
1.25 acres	54,450 sq. ft.	19,057.5 sq. ft.	35.0%
2.5 acres	108,900 sq. ft.	20,000 sq. ft.	18.37%
5 acres	217,800 sq. ft.	20,000 sq. ft.	9.18%
10 acres	435,600 sq. ft.	20,000 sq. ft.	4.59%

The 35-percent description therefore becomes misleading when applied to larger parcels.

At approximately 1.31 acres, the fixed 20,000-square-foot ceiling becomes controlling. From that point forward, the larger the property becomes, the smaller the percentage of the property the owner may disturb.

A 2.5-acre property is effectively limited to approximately 18 percent.

A five-acre property is limited to approximately 9 percent.

A ten-acre property is limited to approximately 4.6 percent.

Stated another way, approximately 95.4 percent of a ten-acre parcel could become unavailable for activities falling within the proposed ordinance's broad definition of Disturbance.

That is a significant change in development rights.

The effect is particularly important because “Disturbance” does not mean only the footprint of buildings. The proposed definition includes or can encompass grading,

clearing, excavation, filling, driveway construction, utilities, septic systems and leach fields, structures, and other development activity.

Under existing zoning, these different improvements are generally regulated under standards applicable to the particular improvement.

A residence has setbacks.

Accessory buildings have their own setbacks and coverage requirements.

A septic system is regulated according to wastewater requirements.

A driveway is regulated according to access and drainage standards.

A swimming pool is subject to building, barrier, setback, and drainage requirements.

Grading is reviewed for drainage and safety.

The proposed Hillside Ordinance takes many of these otherwise separate activities and places them into one cumulative disturbance budget.

Pinal County's currently published Building Site Grading guidance for ordinary individual residential parcels addresses drainage, contours, changes in watercourses, fill, compaction, and related engineering issues. It does not identify a general parcel-wide maximum square footage of grading comparable to the proposed 20,000-square-foot Hillside limitation.

The County should therefore explain the engineering or planning basis for selecting an absolute 20,000-square-foot ceiling and, particularly, why the percentage of property available for disturbance should continuously decrease as parcel acreage increases.

3. THE HILLSIDE DEFINITION CAN PRODUCE DIFFERENT RESULTS ON IDENTICAL TERRAIN BASED ON LOT CONFIGURATION

The proposed definition of “Hillside” can produce substantially different results even though the underlying terrain has not changed. Whether land qualifies can depend not only on the slope itself, but also on how the property lines divide that slope.

The attached figures illustrate the issue using a simplified constant 15% grade.

A single 330' × 330' parcel at a 15% grade has a total elevation change of:

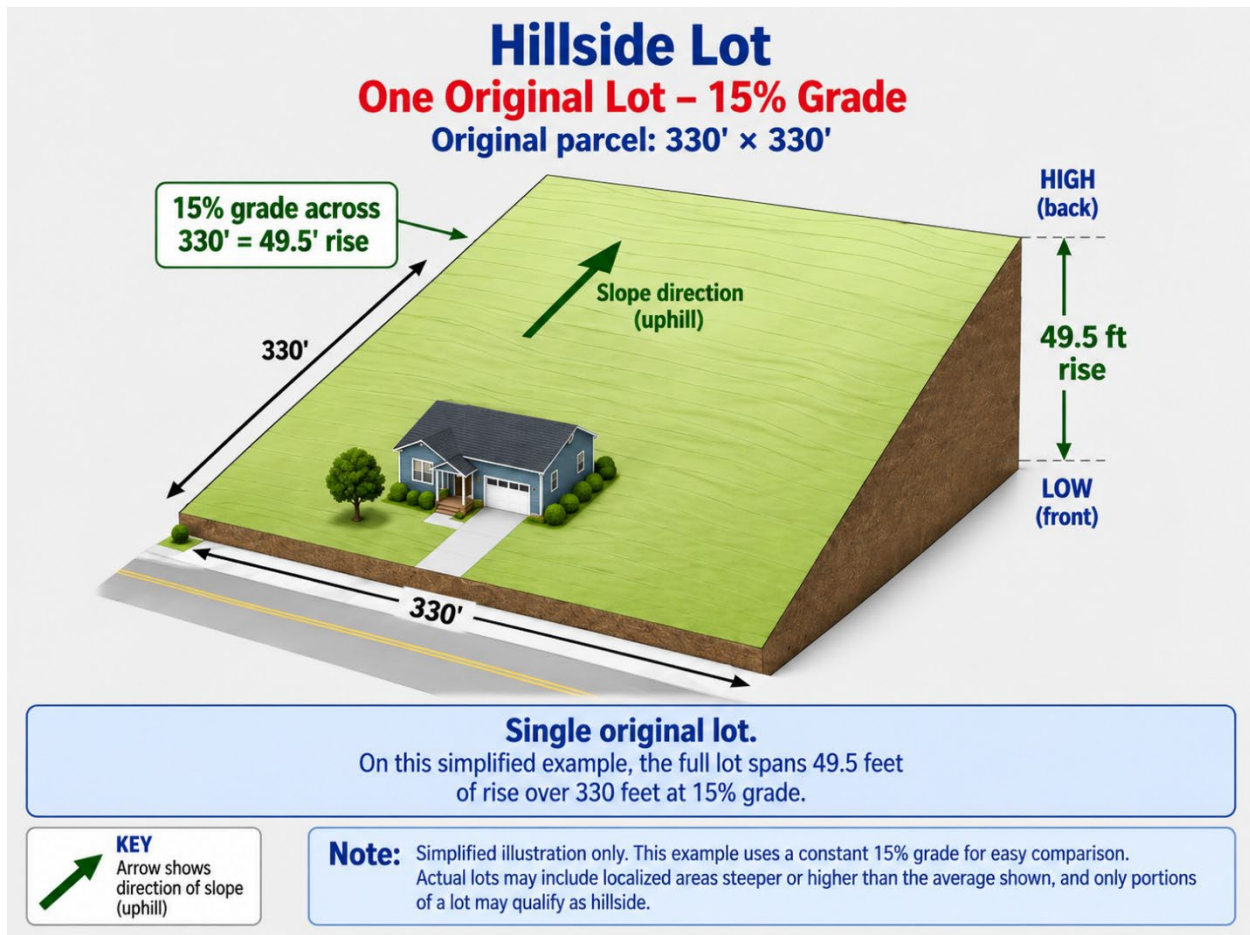
$$330' \times 15\% = 49.5 \text{ feet}$$

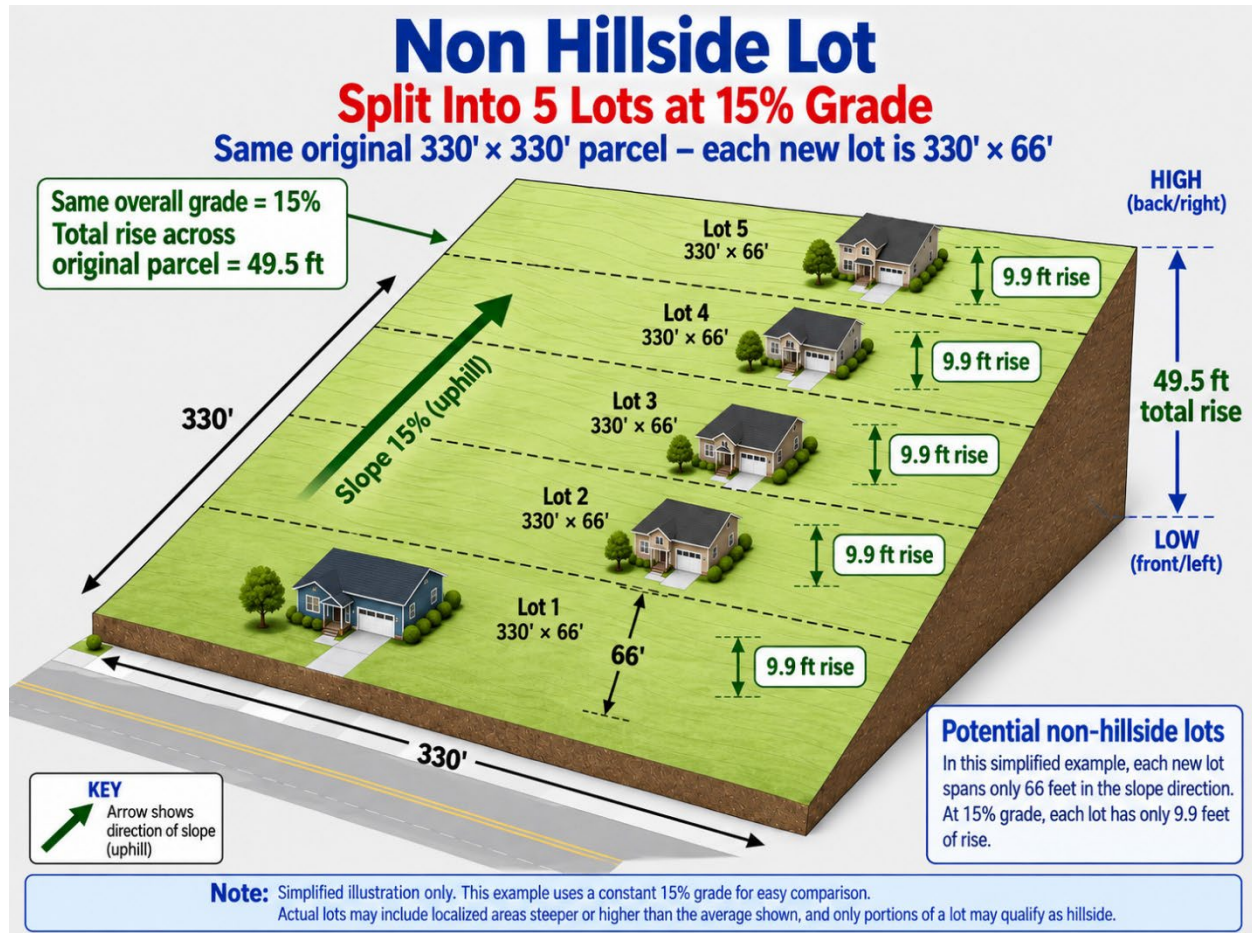
If that same unchanged property is divided into five 330' × 66' parcels, with the new lot lines running across the direction of the slope, each new parcel contains only:

$66' \times 15\% = 9.9$ feet of elevation change

The natural terrain has not changed. The overall slope has not changed. Drainage, erosion potential, and slope stability have not changed. Only the property lines have changed.

Yet because the proposed Hillside definition includes a ten-foot elevation-change requirement, the original parcel can satisfy that component of the definition while each newly created parcel falls just below it.





This illustrates an important problem with tying the physical classification of terrain to the “within any horizontal distance with a ten-foot (10’) elevation change” dimensions of an individual “Lot or Parcel.”

The same hillside can potentially be classified differently merely because it is divided differently. Conversely, two neighboring owners on essentially identical terrain could be regulated differently because one owns a larger parcel spanning more than ten feet of elevation change while another owns a narrower parcel spanning less than ten feet.

If the purpose of the ordinance is to regulate terrain presenting genuine hillside-development concerns, the determining standard should primarily reflect the physical characteristics of the land—not the location of historically or subsequently created property lines.

The County should therefore clarify:

1. Whether the required ten-foot elevation change must occur entirely within the boundaries of the individual Lot or Parcel;

2. Whether the County intends to measure qualifying slope across adjoining parcel boundaries;
3. Whether subdivision or lot-line adjustment can change the Hillside classification of otherwise unchanged terrain; and
4. Why a fixed ten-foot elevation-change requirement tied to an individual Lot or Parcel is an appropriate measure of drainage, erosion, slope stability, or development risk.

Important Note Regarding the Figures

The figures are simplified illustrations intended to demonstrate the effect of parcel configuration. They do not fully depict localized areas that may be steeper or higher than the average grade shown. An actual parcel may contain individual portions that independently satisfy the Hillside definition even where the parcel-wide average does not.

The illustrations also use a **15% grade for simplicity**. Because the proposed definition reportedly uses a slope **greater than 15%**, the same result can be demonstrated just above the threshold. For example, at a **15.1% grade**, the original 330-foot parcel rises approximately **49.83 feet**, while each 66-foot parcel rises only approximately **9.97 feet**. Thus, the parcel-boundary issue exists even when the slope is actually greater than 15%.

Recommended Revision

The County should revise the definition to ensure that Hillside terrain is determined through a clear and objective terrain-based methodology that does not produce materially different classifications solely because of lot dimensions, parcel orientation, or later land divisions.

4. PINAL COUNTY ALREADY USES A 20,000-SQUARE-FOOT GRADING LIMIT – BUT IN A VERY DIFFERENT CONTEXT

The 20,000-square-foot number is not entirely new to Pinal County.

Pinal County's existing GR cluster-development provisions impose additional grading requirements on subdivisions electing to use the cluster option.

Those provisions generally establish:

16,000 square feet as the maximum grading area on cluster lots smaller than one acre; and
20,000 square feet as the maximum grading area on cluster lots one acre or larger.

Importantly, however, those requirements apply in the context of a cluster subdivision.

The existing ordinance requires the grading envelopes to be delineated on the subdivision plat. The subdivision is designed around conservation areas, development areas, roadways, lot patterns, building locations, and grading limits before the individual lots are created.

That is fundamentally different from imposing essentially the same 20,000-square-foot ceiling on an existing parcel whose boundaries may have been established decades ago.

An owner purchasing a lot in a cluster subdivision can see the grading envelope on the recorded plat and knows the limitation before purchasing or developing the property.

An owner of an existing 2.5-, five-, or ten-acre parcel had no such opportunity.

The owner did not have the ability to:

move the lot boundaries;

select a different building envelope;

design roads around the limitation;

locate conservation areas during subdivision design;

configure utilities and septic areas around a 20,000-square-foot envelope; or

decide whether to participate in a cluster-development concept at all.

This distinction is extremely important.

Pinal County's own existing ordinance demonstrates that a fixed grading envelope can be appropriate where the parcel is intentionally created through a planning and subdivision process designed around that restriction.

It does not follow that the same numerical restriction should be imposed retroactively on every existing hillside parcel regardless of when or how that parcel was created.

5. EXISTING LEGALLY CREATED PARCELS SHOULD BE PROTECTED; FOLLOW THE PAYSON MODEL

The Town of Payson provides an established Arizona example of a more equitable approach.

Payson Town Code § 154-07-002(H) provides that properties or parcels established before August 8, 1999 are not required to conform to its hillside regulations unless the property is subsequently reconfigured through a lot-line adjustment, minor land division, subdivision plat, or similar process.

Pinal County should adopt a similar prospective approach.

This would produce much fairer treatment among existing property owners.

Consider two neighboring hillside parcels with essentially identical terrain.

One owner developed years ago and constructed a residence, accessory buildings, driveway, septic system, swimming pool, retaining walls, utilities, and substantial grading.

The adjoining owner left most of the property natural or developed only a small portion of it.

Under the proposed ordinance, the already-developed property generally retains the benefit of its previous development, while the owner who conserved the neighboring property could suddenly be limited to 35 percent, 18 percent, 9 percent, or even less than 5 percent of the parcel.

The result is counterintuitive:

The owner who disturbed the hillside first retains the benefit of that development.

The owner who preserved the hillside loses future development flexibility.

A property owner's remaining rights should not depend primarily upon which neighbor happened to develop first.

Applying the new standards to newly created or subsequently reconfigured parcels solves much of this problem.

When property is newly subdivided after adoption, the developer knows the hillside requirements beforehand. Lot lines, building sites, roads, septic areas, utilities, drainage facilities, and conservation areas can all be designed around those restrictions.

Existing parcel owners never had that opportunity.

Recommended language

I recommend language substantially similar to the following:

“Properties or Parcels legally established before the effective date of this Section shall not be required to conform to the Hillside Development standards of this Section unless the Property or Parcel is subsequently reconfigured by a Lot Line adjustment, minor land division, subdivision plat, or similar process after the effective date of this Section.”

This would not exempt existing properties from building codes, drainage regulations, flood-control requirements, wastewater regulations, fire codes, erosion-control requirements, or other generally applicable health and safety standards.

It would simply prevent a newly enacted Hillside development envelope from substantially changing the development expectations associated with parcels that were legally created before the regulation existed.

6. THIS APPROACH WOULD ALSO REDUCE PROPERTY-RIGHTS DISPUTES

Arizona's Private Property Rights Protection Act, including A.R.S. § 12-1134, should also be considered.

That statute generally provides a potential compensation remedy when a land-use law enacted after an owner acquires property reduces existing rights to use, divide, sell, or possess the property and reduces its fair market value.

The statute contains important exceptions, including certain regulations genuinely enacted for protection of public health and safety. The County bears the burden of demonstrating that an exemption applies.

This does not mean every Hillside regulation creates a compensation claim.

It does mean the County should carefully distinguish regulations necessary to address demonstrable health and safety concerns from restrictions intended principally to preserve visual character.

That distinction is relevant because the County's stated purposes for the proposed ordinance expressly include maintaining the “character, identity, and image” of Hillside areas and preserving Ridgelines as valuable scenic resources.

Drainage, erosion, slope stability, flooding, and structural safety can be addressed using objective engineering standards.

Preservation of scenic character is a different governmental objective.

This becomes particularly important where substantial portions of Pinal County's existing hillsides and ridgelines have already been legally developed.

Before restricting the remaining existing parcels for scenic preservation purposes, the County should determine:

how much terrain currently satisfies the proposed Hillside definition;

how much of that terrain has already been developed;

how much qualifying Ridgeline has already been developed;

how much qualifying terrain remains undeveloped; and

what measurable scenic benefit will result from restricting remaining existing parcels while previously developed neighboring properties remain unaffected.

The County should avoid creating unnecessary disputes under Arizona property-rights law when a prospective approach similar to Payson's can accomplish the County's objectives with considerably less impact on existing owners.

7. IF A DISTURBANCE CAP IS RETAINED, IT SHOULD MEASURE PERMANENT HILLSIDE ALTERATION – NOT EVERY NECESSARY RESIDENTIAL IMPROVEMENT

Even if the County decides to retain a disturbance limitation for existing parcels, the definition used to calculate that limitation should be substantially narrowed.

The numerical limitation should measure meaningful permanent alteration of natural hillside terrain.

It should not treat every driveway, swimming pool, septic field, utility trench, retaining wall, and temporarily disturbed construction area as equivalent to permanent hillside grading.

A. Swimming Pools

Swimming pools should be excluded from the disturbance-area calculation.

Pinal County already recognizes that swimming pools should not necessarily be treated the same as ordinary structures when calculating development coverage.

Current PCDSC § 2.70.020(I), governing the CR-3 Single Residence Zone, states:

“Buildable area: Not to exceed 40 percent of the lot, including all structures, except swimming pools.”

The County has therefore already made a policy distinction between swimming pools and other structures in an existing percentage-based development limitation.

The proposed Hillside Ordinance should not reverse that treatment without identifying a specific hillside-related reason for doing so.

An in-ground pool is also fundamentally different from an above-ground building.

Much of the improvement is excavated below finished grade.

It generally does not create the same visual mass as a residence, garage, or other structure.

It generally does not obscure a ridgeline in the same manner as a building.

It can be integrated into engineered grading and retaining-wall systems.

There is also an important drainage distinction.

Rainfall landing directly upon the water surface enters the pool basin rather than immediately becoming overland runoff from that footprint.

This does not mean a pool should be considered a stormwater retention basin or that overflow and surrounding drainage can be ignored.

Pools should remain subject to all applicable drainage, structural, flood-control, setback, barrier, and building requirements.

But counting the pool's entire footprint against a restrictive Hillside disturbance allowance is unnecessary.

Recommended language:

“For purposes of calculating maximum Disturbance under this Section, the finished surface area occupied by an in-ground swimming pool or spa shall not be included. Associated grading, cut and fill outside the finished pool footprint shall remain subject to applicable requirements.”

B. Driveway Surface Area

Finished driveway surface area should also be excluded.

This is another area where Payson provides a useful example.

Payson allows the driving surface of a driveway to be excluded from its hillside disturbance calculation while still counting associated cuts, fills, retaining walls, and grading adjacent to the driveway.

Pinal County should adopt the same approach.

A long rural driveway should not consume thousands of square feet of an owner's limited disturbance allowance simply because the safest or least environmentally sensitive building location is located farther from the public road.

The proposed Pinal ordinance itself acknowledges the necessity of driveways by allowing driveway-related disturbance to extend outside the Buildable Area to the street line.

If access is necessary to make lawful use of the property, the driveway surface should not consume the same disturbance allowance as permanent hillside cuts and building pads.

This is particularly appropriate for gravel, decomposed-granite, and other minimally improved or permeable driveway surfaces.

Recommended language:

“The finished driving surface of a driveway providing access to a permitted use shall not be included in the maximum Disturbance calculation. Cut slopes, fill slopes, retaining-wall disturbance, and grading extending beyond that reasonably necessary for the driveway shall remain included.”

C. Septic Systems and Leach Fields

Septic tanks and subsurface disposal areas should also be excluded after installation and restoration.

On many rural Pinal County parcels, septic is not optional. Public sewer simply is not available.

The proposed ordinance could therefore treat otherwise identical properties differently based solely upon availability of public sewer.

A property with sewer service could retain its full disturbance allowance.

A neighboring property without sewer could consume thousands of square feet of its allowance installing the wastewater system necessary to legally occupy the home.

That distinction does little to preserve scenic Hillsides or Ridgelines.

Pinal County and Arizona already regulate onsite wastewater systems according to detailed health, soil, slope, and design requirements.

Those regulations should continue to apply.

But after an underground septic system or leach field is installed and the surface is restored, the subsurface footprint should not permanently consume the owner's Hillside disturbance allowance.

Recommended language:

“Onsite wastewater treatment facilities, including septic tanks and subsurface disposal fields, shall not be included in the final maximum Disturbance calculation where the affected surface is restored and stabilized. Permanent cuts, fills, retaining structures, or other unrecovered terrain alteration shall remain included.”

D. Underground Utilities

The same principle should apply to restored utility trenches.

A temporary trench for water, electrical, communications, or other underground service can be backfilled and the terrain restored.

The ordinance should encourage shared trenches and placement within existing disturbed corridors, but where separate trenching is necessary, successfully restored terrain should not remain permanently classified against the disturbance allowance.

E. Temporary Construction Disturbance

Temporary construction disturbance should receive credit when the property owner restores the terrain.

If an area is temporarily disturbed for construction but is subsequently returned to substantially its previous contour, stabilized, and revegetated, it should not continue indefinitely to count as though it were permanently developed.

The ordinance itself encourages restoration and revegetation.

The mathematical disturbance calculation should recognize successful restoration.

F. Retaining Walls, Drainage Improvements, and Erosion-Control Measures

The ordinance should also avoid penalizing improvements installed specifically to protect the hillside and adjoining properties.

Retaining walls, swales, riprap, culverts, drainage improvements, and other engineered measures can:

stabilize slopes;

prevent erosion;

protect property from flood damage;

maintain controlled drainage paths; and

reduce impacts on neighboring properties.

A property owner should not lose additional development rights simply because a professional engineer determines that one of these improvements is necessary to make development safer.

Where such improvements are required pursuant to an approved grading, drainage, or engineering plan, they should either be excluded from the disturbance calculation or receive an appropriate disturbance credit.

8. THE COUNTY SHOULD DISTINGUISH “PERMANENT HILLSIDE DISTURBANCE” FROM TEMPORARY OR NECESSARY DEVELOPMENT ACTIVITY

Rather than using an exceptionally broad definition of Disturbance for purposes of the numerical cap, I recommend creating a separate defined term such as:

“Permanent Hillside Disturbance”

or

“Maximum Hillside Disturbance Area.”

That calculation could include:

building pads;

permanent cuts;

permanent fills;

substantial clearing that is not restored;

permanent graded areas; and

other lasting alterations of the natural terrain.

It should exclude or provide credit for:

1. Swimming pools and spas;
2. Finished driveway driving surfaces;
3. Septic tanks and restored subsurface disposal fields;
4. Restored underground utility trenches;
5. Temporary construction areas that are restored and revegetated;
6. Drainage and erosion-control facilities required by an approved engineering plan;
and
7. Retaining walls and associated stabilization improvements required to reduce erosion or protect adjoining property.

These exclusions would not make those improvements unregulated.

They would remain subject to all applicable building, drainage, flood-control, wastewater, grading, engineering, erosion-control, and public-safety requirements.

The distinction would simply ensure that the maximum Hillside disturbance number measures actual permanent alteration of the hillside rather than every square foot temporarily touched while constructing and servicing a lawful residence.

CONCLUSION

I support reasonable hillside development standards where objective regulations are necessary to address drainage, erosion, slope stability, flooding, or public safety.

The proposed ordinance, however, should distinguish those legitimate engineering concerns from the much broader question of how much of an existing private parcel may ever be developed.

Pinal County currently uses a 20,000-square-foot grading envelope in a setting where it makes logical planning sense: a cluster subdivision designed from the beginning around conservation areas, development areas, and recorded building envelopes.

Applying a comparable fixed limit to an existing five- or ten-acre parcel is fundamentally different.

At five acres, the proposed maximum represents approximately 9.2 percent of the property.

At ten acres, it represents approximately 4.6 percent.

When that small allowance must also absorb activities such as driveways, septic systems, utilities, pools, grading, and other infrastructure, the practical impact on an existing property owner's future use can be substantial.

The Town of Payson demonstrates a more equitable alternative: protect parcels that existed before adoption and apply the new hillside restrictions when property is subsequently divided, adjusted, or replatted.

That approach would preserve Pinal County's ability to protect Hillsides in future development while respecting the expectations and property rights associated with existing legally created parcels.

It would also allow future hillside parcels to be intentionally designed around grading envelopes before lot lines are established, rather than attempting to impose those envelopes decades after the property was created.

I respectfully request that Pinal County revise the proposed ordinance accordingly before moving forward with adoption.

REFERENCES

Pinal County proposed PCDSC § 2.150.300, Hillside Development.

Pinal County Development Services Code § 2.70.020(I), CR-3 Single Residence Zone.

Pinal County GR Cluster Development provisions concerning maximum grading areas and recorded building envelopes.

Pinal County Building Safety Information Bulletin 015, Regulations Governing Building Site Grading.

Town of Payson Code § 154-07-002(H), Hillside Properties.

A.R.S. § 12-1134, Diminution in Value; Just Compensation.