5. Key issues in the new rule

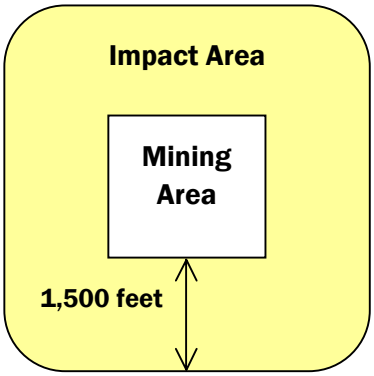
What does it mean to "protect" an aggregate site?

The very first line of the new Goal 5 rule says that one of rule's main purposes is to "protect significant Goal 5 resources" (OAR 660-023-0000). That might seem to imply that the rule aims to preserve aggregate deposits by prohibiting mining. But as its later sections make clear, the new rule is intended to protect significant aggregate resources *for human use (and therefore, for mining)*. This intent is revealed in the definition at Section 0180(1)(i): "*Protect* means to adopt land use regulations for a significant mineral or aggregate site in order to authorize mining of the site and to limit or prohibit new conflicting uses within the impact area of the site."

But the rule doesn't say that all significant aggregate sites must be protected. It recognizes that conflicts between aggregate mining and other land uses need to be considered. It therefore establishes detailed provisions for identifying and resolving such conflicts. It also authorizes local officials to not allow mining of a significant site when the potential for serious conflicts is too great.

What is the "impact area"?

Most of the new rule's provisions for aggregate resources deal with ways to reduce or eliminate the potential for conflicts between a proposed aggregate mine and nearby land uses. But what is meant by "nearby"? What is the area within which conflicts are to be considered?



OAR 660-023-0180(4)(a) answers that question. It says local officials must determine an "impact area" and then evaluate the potential for conflicts within it. The rule specifies that the impact area must be large enough to include the existing or approved land uses that would be "adversely affected" by mining, but it generally "shall be limited to 1,500 feet from the boundaries of the mining area." Only if there is "factual information" suggesting a potential for conflicts farther out may the local government define an impact area that reaches more than 1,500 feet.

Notice that the "impact area" does not include the "mining area." In effect, the impact area is a doughnut, while the mining area is the hole. This point was litigated in the case of *Stockwell v. Benton County (LUBA 2000-033)*. LUBA said: "The text and

context of the rule make it relatively clear that the rule does not require analysis of impacts . . . on the mining site itself." (p. 5)

The term "mining area" is defined at 0180(1)(g) to be "the area of a site within which mining is permitted or proposed, excluding undisturbed buffer areas or areas on a parcel where mining is not authorized." It thus encompasses any "expansion areas" where mining could occur in the future.

Which "conflicting uses" must be considered?

The old Goal 5 rule required a very broad analysis of the potential for conflict on lands surrounding a significant resource site. It required local planners to evaluate not only the uses already on those lands but also the uses that might occur there in the future. For example, if the land surrounding an aggregate site was undeveloped but zoned Rural Residential, local officials had to analyze the conflicts that might occur if all of that land had houses built on it at the maximum possible density.

This requirement for analysis of all possible conflicts was, in many cases, unnecessarily broad. The new Goal 5 addressed that problem by limiting the extent of the impact area to be analyzed and by narrowing the range of conflicting uses that must be addressed.

The new rule provides a general definition of "conflicting use" at 0010(1), but that definition doesn't apply to mineral and aggregate resources. For mining, the operative definition is found at 0180(1)(b). It defines "conflicting use" to be "a use or activity that is subject to land use regulations and that would interfere with, or be adversely affected by, mining or processing activities at a significant mineral or aggregate resource site (as specified in sections 4(b) and (5) of this rule)."

Section 0180(4)(b) limits the conflicting uses that must be considered to two classes: "existing" and "approved."

"Existing uses" are simply those land uses already developed in the impact area: homes, farms, schools, and so on. Any building or other use or activity that lies within the impact area and is subject to land use regulations is considered an "existing use."

"Approved uses" are land uses in the impact area that have not yet been built but have received "conditional or final approval" from the local government. The term includes "dwellings allowed by a residential zone on existing platted lots." The term

In *Morse Bros. v. Columbia County*, 37 Or LUBA 85 (1999), LUBA said the new rule "effectively limits the conflicts that local government may consider" to those listed in OAR 660-023-0180(4)(b). LUBA ruled that "consideration of additional conflicts" was "prohibited." In that particular case, Columbia County's plan had not been acknowledged to comply with the new rule, so the rule applied directly to Morse Bros.' application for a PAPA. But even if the county's plan had been acknowledged to comply with the new rule, the result would have been the same. The rule does not allow a county to amend its plan so as to allow consideration of conflicts beyond those listed in the rule.

does not include uses generally allowed in the zone applied to the impact area but for which no permit has been granted. For example, most zones allow schools and churches, but hypothetical schools and churches that could be allowed in the impact area may not be considered as conflicting uses: they are not "existing" or "approved."

Which types of conflicts must be considered?

The list of conflicts that *could* occur between a mining operation and nearby homes, farms, and other land uses is quite long. Not all of them need to be considered, however, when local officials decide whether mining is to be allowed at a certain site. For example, water and air pollution from mining create a potential for conflict, but such pollution is regulated by Oregon's Department of Environmental Quality (DEQ) and Water Resources Department (WRD). Likewise, various mining operations such as excavation and reclamation create a potential for conflict, but such operations are controlled by DOGAMI's Mined Land Reclamation (MLR) office.

State regulation of such matters resolves conflicts by controlling practices that might otherwise harm people, property, and natural resources. The new Goal 5 rule therefore excludes such matters from consideration in the local analysis of conflicting uses. Section 0180(4)(b) says, "For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to . . ."

The new rule generally limits local analysis of conflicts to four main subject areas:

- Noise, dust and other discharges
- Traffic
- Goal 5 resources
- Agriculture

A. "Conflicts due to noise, dust, or other discharges . . . "

B. "Potential conflicts to local roads used for access and egress to the mining site within one mile of the entrance to the mining site . . . "

C. "Safety conflicts with existing public airports . . ."

D. "Conflicts with other Goal 5 resources within the impact area that are shown on an acknowledged list of significant resources . . . "

E. "Conflicts with agricultural practices . . ."

F. "Other conflicts for which consideration is necessary in order to carry out ordinances that supersede Oregon Department of Geology and Mineral Industries (DOGAMI) regulations pursuant to ORS 517.780."

Item C above, airport safety, no longer applies. Aggregate mining does present some airport safety issues, because gravel pits and quarries often become lakes, which attract waterfowl. If the lakes

are near an airport, aircraft run the risk of hitting the birds. The issue of "birdstrike hazards" is now addressed in other rules (Chapter 660, Division 13, known as the "airport planning rule"). Division 13 was being written when LCDC adopted the new Goal 5 rule. LCDC therefore put a "sunset clause" in 0180(4)(b)(C) saying that airport safety would no longer be a Goal 5 issue after Division 13 took effect.

Item F above deals with a unique combination of ordinance provisions found in only one jurisdiction, Columbia County.

How does the new rule deal with traffic issues?

Truck traffic is almost always an issue with aggregate mining. As described in Chapter 2, trucking is by far the most common way to carry aggregate from mine to market. A large mine may generate hundreds of truck trips each day.

The extent to which such traffic causes conflicts with nearby homes and businesses depends on the local transportation system. If trucks from a mine have ready access to a large state highway, they are likely to have little effect on other land uses near the mine. The mine's dump trucks will have no more effect on local land uses than the thousands of cars, logging trucks, moving vans, and semi's that already travel the highway. But if a mine is located some miles from an arterial, trucks from the mine must rely on the smaller roads and streets used by local homes and businesses. Such traffic may indeed conflict with those land uses.

The rule addresses this issue at 0180(4)(b)(B). It calls for local officials to evaluate:

> Potential conflicts to local roads used for access and egress to the mining site within one mile of the entrance to the mining site unless a greater distance is necessary in order to include the intersection with the nearest arterial identified in the local transportation plan. Conflicts shall be determined based on clear and objective standards regarding sight distances, road capacity, cross section elements, horizontal and vertical alignment, and similar items in the transportation plan and implementing ordinances. Such standards for trucks associated with the mining operation shall be equivalent to standards for other trucks of equivalent size, weight, and capacity that haul other materials.

The word "local" in the first sentence of the above paragraph means "serving the immediate area." It refers to any street or road within one mile or more (if necessary) of the mine's entrance and on the route from the entrance of the mine to the nearest arterial.

The rule's reference to "local roads" should not be confused with the narrower technical term "local

streets." The literature of city planning traditionally classifies urban transportation systems in terms of *arterials*, *collectors*, and *local streets*, but Section 0180(4)(b)(B) does not refer to that classification system. A road classified as a collector in a county's transportation plan thus might be subject to 0180(4)(b)(B), if it is part of the truck route from the mine's entrance to a nearby arterial.

The issue of roads was addressed in *Morse Bros. Inc. v. Columbia County*, 37 Or LUBA 85 (1999). In that case, a mine had direct access to State Highway 30, an arterial. No "local roads" to the nearest arterial were involved. LUBA said, "OAR 660-023-0180(4)(b)(B) does not permit" the county to consider the conflicts that might occur with trucks from the mine entering onto that highway.

Note! The above description of traffic issues deals only with the Goal 5 rule. Other administrative rules, such as the "transportation planning rule" or "TPR" (OAR Chapter 660 Division 12), may apply to planning for aggregate resources at a given site.

A plan amendment for aggregate resources must comply with ***all*** applicable goals and rules, not just with Goal 5 and its rules. For traffic issues, compliance with OAR 660-023-0180 may not satisfy applicable provisions of the transportation planning rule (OAR Chapter 660, Division 12).

How may conflicts be "minimized"?

If a local government's review of a mining proposal reveals potential for conflicts, the next step is to find whether the conflicts can be "minimized" (reduced or eliminated). For example, a conflict involving truck traffic from a gravel pit might be minimized by installing a traffic signal at the pit's entrance and specifying a certain route for the trucks to follow.

Where the conflict is covered by a government regulation, such as noise and dust, it is "minimized" if the applicant demonstrates compliance with the standard. Keep in mind that conflicts do not need to be eliminated entirely to be minimized.

Section 0180(4)(c) calls for local officials to "determine reasonable and practicable measures that could minimize the conflicts identified." If all of the conflicts can be minimized, then "mining *shall* be allowed at the site."

What happens if conflicts can't be minimized?

If a local government's review of a mining proposal reveals some conflicts that cannot be minimized, the next step is an "ESEE analysis." "ESEE" stands for *economic*, *social*, *environmental* and *energy*. Section 0180(4)(d) requires the local officials to "determine the ESEE consequences" of three courses of action:

1. Allow the mining.
2. Limit the mining.
3. Don't allow mining.

The second option, to "limit mining," means to allow some mining to occur but only with certain restrictions to reduce conflicts. For example, suppose a local government finds that to allow mining over the entire area of a one-hundred-acre parcel would cause undue conflict with farming and residential uses west of the parcel. The local officials might find that limiting the mining to the eastern half of the parcel would eliminate most of those conflicts. Confining the aggregate operation to the eastern fifty acres would be an example of the "limiting" option.

ESEE analysis is a standard part of the Goal 5 process, not just for decisions about aggregate, but for all Goal 5 resources. Section 0040 of the new rule describes how the analysis is done. Basically, the analysis compares the ESEE costs and benefits of mining at a particular site to the ESEE costs and benefits of the other uses nearby. In the case of aggregate, the rule requires the ESEE analysis to be confined to conflicts that could not be minimized.

What conditions may be placed on a mining operation?

If local officials decide to approve a post-acknowledgment plan amendment to allow mining, they may put certain conditions on the operation of the mine. Section 0180(4)(e), however, limits such conditions to those which are clear and objective. And it requires that the process for reviewing compliance with those conditions (typically referred to as "site review") must not "provide opportunities to deny mining" for reasons unrelated to the conditions.

How does the rule deal with new uses in the impact area?

Before mining may be approved at a given site, the rule requires an ESEE analysis that focuses on conflicts caused by mining that have not been minimized. *Where all identified conflicts have been minimized, this ESEE is not required.* ***After*** mining has been approved there, the focus shifts: the rule requires an ESEE analysis of conflicts that might be caused by any new uses allowed in the impact area.

One reason for writing the new rule was to reduce the burden on local governments in analyzing conflicts. The old rule asked them to identify all uses that might develop near significant resource sites. It required them to consider all potential conflicts with such uses and do an ESEE analysis of the conflicts. The new rule greatly reduced the scope of that task.

Section 0180(4)(b) focuses on conflicts between mining and "existing or approved land uses" in the impact area. New uses that might occur there in the future need not be addressed. But what keeps new uses from developing near an approved aggregate operation, thus interfering with mining and creating new conflicts? The answer lies in the next section of the new rule: 0180(5) calls for an ESEE analysis of consequences of allowing, limiting, or preventing any new uses within the impact area of sites where mining has been allowed.

6. Existing mining operations

Most of this guide has to do with planning and zoning for *new* aggregate mines. There are, however, some land-use issues associated with old mining sites and mines already in operation. The three most common questions are these:

1. Can a mine that began operating before current land use regulations were applied to it continue to operate, even if it does not comply with the new regulations?

The answer to that is "Yes." ORS 215.130(5) allows old "nonconforming" uses (including surface mines) to continue operating as before, even after new land-use regulations are adopted. Such nonconforming uses often are said to be "grandfathered in." But this law applies only to counties. No comparable statute for cities has been enacted.

2. Can a mine that ceased to operate for some extended period resume operations?

In most cases, the answer is "Yes." ORS 215.130(7) says a use may not be resumed after it has been interrupted or abandoned unless it complies with all current land use regulations. But it goes on to say that a surface mining use is not to be considered interrupted or abandoned if it has a valid state or local "mining permit" and has not been "inactive" for at least 12 consecutive years. A mine is considered "active" when *any* aggregate is excavated, crushed, removed, stockpiled or sold there.

Again, the statute cited here applies only to counties. The city planning statutes in ORS Chapter 227 don't address this question.

3. Can a mine expand its operations over some larger area?

Maybe. It depends on the terms of the permit issued for the mining, and on the local plan. In most cases, the old permit will specify that permission is given to mine within a certain area or to remove a certain amount of material. If the mining operators propose to exceed that, a new conditional use permit (CUP) or a plan amendment will be needed.

For example, suppose the owner of two adjoining parcels got a conditional use permit in 1980 to mine aggregate on one parcel. If the owner now wants to mine aggregate on the second parcel, she needs to get either a new CUP or a post-acknowledgment plan

amendment (PAPA). If her second parcel already is designated in the plan for aggregate mining, a CUP would be sufficient. But if the plan and land use regulations don't already provide for aggregate mining on that second parcel, a PAPA usually would be required.

That requirement for a PAPA grows out of OAR 660-023-0180(4)(e). It says that if a local government decides to allow mining of a significant site, "the plan and implementing ordinances shall be amended to allow such mining."

This point was addressed by LUBA in 1998 in *Trademark Construction v. Marion County*, 34 Or LUBA 216. LUBA said:

> *We conclude that where a proposed expansion of a mining site is inconsistent with an acknowledged comprehensive plan, a CUP is insufficient to permit the expansion. In that circumstance, OAR 660-023-0180(4) requires a PAPA.*

7. Agriculture and aggregate

One of the most vexing problems in planning and zoning for aggregate resources is how to reconcile strong policies to protect farmland with strong policies to protect aggregate sites for mining.

On the one hand, Oregon has a statewide policy (Goal 3) to "preserve and maintain agricultural lands." Under that policy, we have zoned 16 million acres – about half of the privately owned land in the state – for "exclusive farm use." On the other hand, we have a strong statewide policy in Goal 5 and related rules to protect key aggregate sites so as to maintain a ready supply of a vital building material. Nature compounds the policy conflict by often putting the best aggregate sites in precisely the same places where we find the best soils for farming.

The state has addressed this tension between agriculture and aggregate with a variety of provisions in statutes, goals, and rules. These provisions were adopted at different times and for different reasons. But taken together, they represent a policy to find an appropriate middle ground, one that reduces conflicts and allows both farming and mining to occur. The main provisions for balancing agriculture and aggregate are outlined below.

ORS 215.213: This long statute lists various uses that may occur in the exclusive farm use (EFU) zones of counties that have "marginal lands." It applies only to Lane and Washington counties. Among uses that "may be established" in the EFU zone are these:
"(d) Operations conducted for:

(A) . . .

(B) Mining, crushing or stockpiling of aggregate and other mineral and other subsurface resources subject to ORS 215.298;

(C) Processing, as defined by ORS 517.750, of aggregate into asphalt or Portland cement; and

(D) Processing of other mineral resources and other subsurface resources."

ORS 215.283(2)(b): Using words almost identical to ORS 215.213, this statute provides that surface mining may be established in an EFU zone. The main difference is that this statute applies to the 34 counties that have *not* designated marginal lands. Taken together, the two statutes authorize surface

mining as a conditional use in the EFU zones of all 36 counties in Oregon.

ORS 215.296: This statute applies to all conditional uses in EFU zones, including surface mining. It specifies two "approval standards." That is, a permit to mine could not be approved unless both of these standards are met:

- The proposed use will not "force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use"; *and*
- The proposed use will not "significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use."

This statute requires an analysis of "accepted farm practices" without regard to whether they take place on a "commercial" or "non-commercial" farm. This point has been addressed by LUBA in several land use appeal cases involving farmland. See, for example, *Turner Community Association. v. Marion County*, 37 Or LUBA 324 (1999).

ORS 215.298: This law applies only to surface mining in EFU zones. It says mining of more than 1,000 cubic yards of material or on more than one acre of land may be done only if a "land use permit" is obtained. And it goes on to say that such a permit may be issued only for sites "on an *inventory* in an acknowledged comprehensive plan."

The *inventory* referred to in this statute is not necessarily the inventory of significant resources required by Goal 5. Instead, it is a listing of surface mining sites that either may or may not be significant. To meet the requirements of this statute, many counties may have two "inventories" of aggregate sites, a "Goal 5 inventory" and a "nonsignificant or other aggregate inventory." The Goal 5 inventory would contain all of the significant aggregate resource sites listed or protected under Goal 5 and its rules. The "nonsignificant or other aggregate" inventory could include aggregate sites that do not meet significance requirements and those for which Goal 5 protection is not sought by the applicant or significance is not proven. Thus, some of those aggregate mining sites on farmland might not be "significant" and hence, not subject to Goal 5.

ORS 215.301: This statute protects vineyards from the dust and chemicals associated with aggregate batching and blending. The statute bars "batching and blending of mineral and aggregate into asphalt

cement within two miles of a planted vineyard." In one LUBA case, the question arose of whether this statute applies to a processing site that is not in an EFU zone but that is within two miles of a vineyard in an EFU zone. LUBA concluded that the two-mile limit does extend outside the EFU zone.

ORS 215.425: This statute narrows the scope of review for certain applications for conditional use permits regarding aggregate mining in EFU zones. It specifies that decisions about *how* mining is to occur (as opposed to *whether* it shall be allowed) are "limited land use decisions." The procedures for such decisions are faster and do not require a public hearing, unless a decision is appealed.

OAR 660-023-0180(3)(d): This section of the new rule limits the kinds of aggregate sites in EFU zones that may be counted as "significant." It specifies two criteria:

- If more than 35 percent of the mining area has Class I soils, the site cannot be counted as significant.
- If more than 35 percent of the mining area is Class I and II soils, the site can be counted as significant only if there are large quantities of good aggregate beneath the soil. The rule goes on to establish regional standards for what is meant by "large quantities." For example, it says that in Clackamas, Polk, and Yamhill counties, such a site can be considered "significant" only if the aggregate layer is at least 25 feet thick.

8. Litigation over aggregate

Most land use litigation starts with an appeal of a local government's decision. For example, a landowner applies for a conditional use permit to operate a quarry, county officials approve the permit, and a neighbor appeals the county's decision. In Oregon, such appeals go first to the Land Use Board of Appeals (LUBA). If LUBA's ruling is challenged, the case goes on to the Court of Appeals. Further challenge takes the case to the state's Supreme Court.

Of course, not all land use litigation fits the pattern described above. A few of Oregon's land use cases get into the federal court system. Others originate in the state's 26 circuit courts rather than in LUBA. Also, appeals of actions taken by LCDC, such as periodic review orders, go directly to the Court of Appeals. But land use cases that don't pass through LUBA are the exception, not the rule. By far the most common path of land use litigation in Oregon is this:

Local Government

↓

LUBA

↓

Court of Appeals

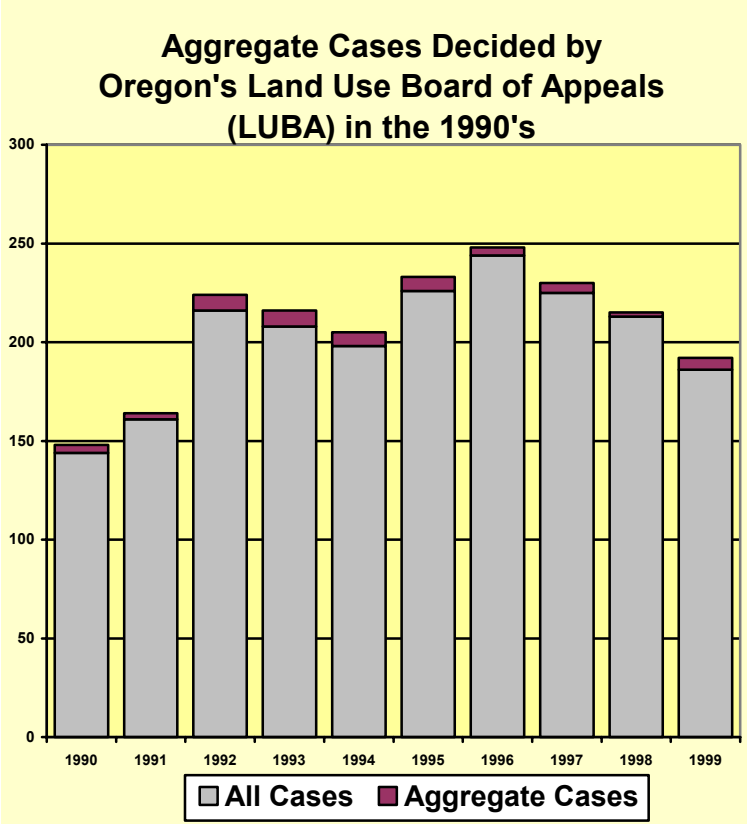
↓

State Supreme Court

Aggregate Cases at LUBA

Litigation over aggregate resources typically takes two forms: a neighbor or other concerned citizen appeals a local government's decision to approve aggregate mining, or an applicant for mining appeals a local government's denial of his or her request. The former situation is far more common: the great majority of aggregate cases in LUBA during the 1990's were appeals of a local government's decision to approve a permit for aggregate mining. Only a few appeals came from the permit applicant challenging a local government's denial.

During the ten years from 1990 through 1999, LUBA decided 2,075 cases. All involved land use of one kind or another. Many had to do with farmland protection, urban growth boundaries, and housing. Only 54 of the LUBA cases heard during the decade (2.6 percent) had to do with aggregate mining. In a typical year, then, LUBA decided about 200 cases, of which five or six dealt with aggregate. These data are summarized in the chart and table shown below.

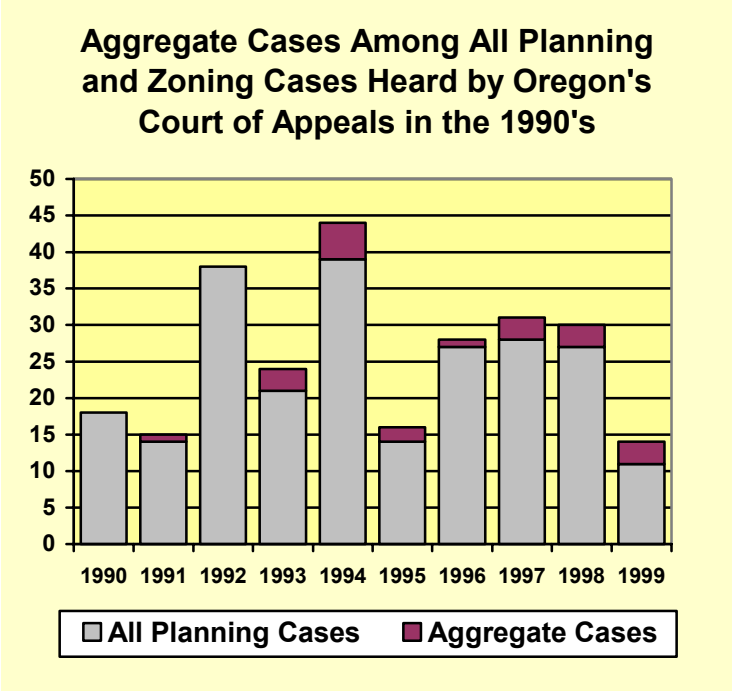


Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
All Cases	148	164	224	216	205	233	248	230	215	192
Aggregate Cases	4	3	8	8	7	7	4	5	2	6

About two-thirds of LUBA's decisions in the aggregate cases went against mining; the other third were favorable to it. More than half of LUBA's rulings were "remands." Such rulings do not overturn a local government's decision. They simply direct the local officials to reconsider it. Often, the local officials will review the remanded case, write stronger findings, and reaffirm their original decision.

Aggregate Cases at the Court of Appeals

Unlike LUBA, the Court of Appeals hears a wide variety of cases, not just those that involve land use. During the 1990's, the Court of Appeals decided a total of 258 cases that involved land-use planning. Twenty-one of those decisions involved aggregate mining, an average of two cases per year. The data are summarized in the graph and table below.



Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
All Planning Cases	18	15	38	24	44	16	28	31	30	14
Aggregate Cases	0	1	0	3	5	2	1	3	3	3

As with LUBA, decisions by the Court of Appeals ran against aggregate mining by a ratio of about two to one. Fifteen of the court's 21 decisions were adverse to mining interests; six were favorable. Most of the court's decisions simply affirmed rulings made by LUBA, LCDC, or the Columbia River Gorge Commission.

Litigation: A Little or a Lot?

A quick glance at the above data may tempt one to conclude there isn't much litigation over aggregate mining. After all, LUBA decides only five or six aggregate cases per year; that's less than three

percent of its caseload. The Court of Appeals decides only two aggregate cases a year, which amounts to only eight percent of its land use caseload.

Such statistics, however, disguise a key point: thousands of variances, partitions, and other land-use decisions are made throughout Oregon each year, but only a few dozen of them deal with aggregate mining. Considering the small number of aggregate cases that could be appealed in the first place, the amount of litigation involving aggregate resources seems large. We lack the data necessary to compare the number of appeals of aggregate decisions against the total number of decisions made. Partial evidence, however, suggests that the odds of an aggregate mining decision being appealed have been much higher than for most other types of land use.

Those odds may have been changed, however, by the new state rules adopted in 1996. Those rules simplified the way in which Goal 5 applies to aggregate. They clarified terms and created clear and objective standards regarding key issues. They also narrowed the scope of issues susceptible to litigation. State and local officials used the experience gained in two decades of planning for aggregate resources to develop more effective planning tools.

For those who want to delve into the details of aggregate law, LUBA's opinions offer a wealth of information. We therefore have listed in Appendix E the citations for the aggregate cases decided by LUBA during the decade from 1990 to 2000. The list includes a website address for each of LUBA's opinions. In exploring those cases, however, one should keep in mind that most LUBA appeals from the 1990's deal with the old Goal 5 rule. The new rule hasn't been in effect for very long, and it also seems to be reducing the amount of litigation over aggregate. LUBA therefore has not decided many cases that involve the new rule.

9. Aggregate in the 21st century

DLCD and ODOT foresee several trends with regard to aggregate planning here in Oregon for the twenty-first century.

One trend we expect and hope for is a lessening of the conflict between mining operations and other land uses. The new Statewide Planning Goal 5 rule was adopted with that purpose in mind, but it's too early to know whether the rule really has brought a reduction in such conflicts. With fewer conflicts between mining and other land uses, we would expect less litigation.

As mentioned earlier in this guide, the goal of the new Goal 5 rule is to bring greater precision, certainty, and objectivity to the aggregate planning process. It is intended to provide a framework for local governments to make consistent and appropriate decisions on aggregate planning and permitting statewide. The rule narrows the scope of review for local officials who must decide on PAPA's and permits for mining, and it should reduce conflicts over terminology and procedures. All that should reduce the number of trips to LUBA.

Another trend we expect to happen is a gradual slowing of the per capita demand for aggregate. A multitude of factors are likely to cause that change. Perhaps the most significant among them is simply that fewer new highways are likely to be built. The interstate freeway system is now complete, and the in-state highway system managed by ODOT has grown to 7,500 miles. The need for new highway facilities is less, while the need for maintenance of a complex transportation system has increased dramatically. The net effect should be a lessening of per capita demand for the vast amounts of rock needed to build new roads.

We also expect a gradual increase in the use of recycled building materials, such as pavement from demolished streets, sidewalks, and foundations. At the time of this writing, recycling accounts for only about two percent of all the aggregate used in Oregon, but that proportion is growing. By 2020, some experts expect to see recycled building materials accounting for five or even ten percent of the total. Although per capita demand is expected to

diminish over the coming years, this may not tell the entire story.

According to information supplied by the Mined Land Reclamation staff at DOGAMI, that agency still expects to see an overall increase in aggregate demand statewide in the 21st century because of the continued large upward trend in population growth forecast for Oregon. So, despite what is forecast to be a decrease in per capita demand for aggregate statewide over the coming years, the overall demand for aggregate will continue to grow and planning for adequate aggregate supplies will remain a critical aspect of the land use program here in Oregon.

Finally, we anticipate that the new Goal 5 rule, with its emphasis on bringing greater precision, certainty, and objectivity to the aggregate planning process, and this guide will make it easier for local decision makers to meet the challenge of planning for aggregate in Oregon. It is our hope that this guide will help accomplish that objective.