

Ecosystem Markets: The Purchaser's Perspective

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A. Introduction

To survive, any ecosystem services market must meet the very diverse needs of developers or other purchasers, investors or sellers, and regulatory agencies, while at the same time creating a system that is environmentally beneficial and conserves and preserves natural resources.

An ecosystem services market, like any market, requires both a supply and a demand, together with reasonable transaction costs and speed. The regulatory agencies are the market driver that can create or block the banking market. Without a regulatory demand, purchasers would have no need to buy credits to offset their activities, and investors and sellers would not have a profit-driven force to commit to conservation efforts. However, the market must also promote transactional efficiency and low cost if it is to survive.

These materials focus on a purchaser who might choose to buy credits to offset activities; however, the motivations and needs of the purchasers are directly related to the regulators and sellers and thus understanding their needs is important as well.

B. Regulatory Agencies Create the Demand for the Market

By enforcing offset or mitigation requirements for permittees, or conditions of approval for projects, regulatory agencies create the demand for a credit market.

Also, by accepting market credits as an alternative to other mitigation or offset requirements, the regulatory agencies provide certainty to both investors/sellers and developers/purchasers. That is, by allowing for the purchase of market credits as an alternative to onsite, offsite, and fee-in-lieu mitigation programs, the regulatory agencies help create the environment that allows for a market structure to function efficiently and cost-effectively. Enforcement of mitigation requirements, coupled with regulatory acceptance of markets as a means of compliance, leads to regulatory certainty. Regulatory acceptance and certainty reduces the risk to the purchaser that the mitigation efforts undertaken will be deemed unacceptable to fulfill regulatory requirements.

But regulatory agencies can also kill off such markets. Slow speed, uncertain approvals, uncertain public funds, or too many steps in the process are just some ways that agencies can make a purported market unattractive for purchasers. In addition, lack of resources to ensure management and compliance of the sites can also lead to barriers to entry into an ecosystem services market. The potential lack of accountability and enforcement in the system can lead to regulatory hesitation in accepting credits as an alternative. To overcome that hesitation, it is critical that the agency receive assurances that properties will provide the intended benefits and will be appropriately managed. Finally, overall costs of purchasing the credit must be

competitive with the fee-in-lieu program as established by the agency. When project proponents consider their options for offsetting an impact, they of course look to the costs and benefits of each. If a fee-in-lieu program fee has not kept pace with the appreciation in land values, it may be less expensive to participate in the fee-in-lieu program for the purchaser, yet the agency will not be able to purchase the same amount of land as the fee-in-lieu program had originally intended. In addition, there may be a time delay between the payment into the program and the actual mitigation project, resulting in the potential for unmitigated impacts for a period of time.

C. Landowner/Investor/Seller's Role

If regulatory agencies create the demand, landowners, investors and sellers can respond by providing the supply of credits. This response creates a for-profit market for conservation and land stewardship that allows for profits without consumption or extraction of natural resources. That is, farmers, ranchers or timber foresters, can dedicate all or part of their lands to be conserved through a market banking system and receive value for it, without consuming the natural resources on the property that gives the property value. Essentially, a landowner is paid for not exhausting the resources, a purchaser has an opportunity to mitigate without having to conduct the work itself, the regulatory agency can satisfy its legal duties to enforce compliance with permits and conditions of approval, and the public benefits because mitigation projects are not done in a piecemeal fashion and the ecosystem services are preserved for future generations.

A recent project in eastern Washington illustrates the benefits to the landowner. A wheat farmer started experimenting with no-till practices on his farm, resulting in fewer disturbances in the soil. This farmer teamed up with other farmers and an environmental nonprofit to pitch a proposal to an energy company to create a ten-year soil carbon sequestration lease contract by buying nearly \$75,000 worth of carbon credits from farmers like the one in eastern Washington.

However, in order for any seller to be motivated to participate, the cost of participation has to pencil out. The seller must be assured of a decent rate of return, not incur too many transactional costs itself and be provided with a limitation on its liability.

D. Developer/Purchaser

The developer or the purchaser of credits is the final critical component. The two likely types are: (1) residential developers and other private sector developers (commercial and industrial); and (2) public sector large capital and infrastructure projects such as roads, bridges, transmission lines, water projects and other utility services.

Under a traditional system, if a developer is developing a residential parcel and impacts wetlands or habitat, it might need to perform an onsite mitigation project, an offsite mitigation project or pay a fee to the agency overseeing the project (known as a fee-in-lieu program). This process often is time consuming and costly for the developer to negotiate with the agency, and also

requires the developer to devote some capacity and resources to providing mitigation efforts. In contrast, under a bank credit model, a developer would only need to negotiate with the agency the amount and type of offset of their impact, which would determine which credits and how many it would need to purchase from the bank. The alternative of an established market credit system is especially attractive where only small impacts need to be offset, or if a project team lacks the capacity to develop its own mitigation system to satisfy the regulatory requirements.

Banks can provide to the purchaser economies of scale, with the costs of planning and implementation spread out. Also, since many will be established ahead of the needed impact mitigation, the purchaser can often reduce the time delay in mitigating offsets. Finally, the purchaser reduces its own risk of liability because the market structure shifts the responsibility for the ongoing maintenance and preservation of the site from the purchaser to the banker. In the case of a public sector purchase of credits, since public works projects are often used to stimulate the economy, those purchasers can provide an important infusion of dollars into the market at a time when traditional development activity slows or ceases.

E. Bank Stability

The purchaser must conduct careful due diligence into the financial and structural stability of the market. This can add transaction costs, but can also provide safeguards for the buyer that its upfront costs in purchasing the credits will not be jeopardized if the bank faces financial dissolution before the end of the life of the credit. The bank's "transparent" financial assurances, management plans, and endowments are necessary due diligence items to ensure that the long term mitigation requirements can be met over the life of the project in the absence of an absolute release from liability from the agency. A bank must be able to achieve an appropriate rate for its endowment account in order to provide comfort that the bank will survive to meet its obligations for mitigation.

F. Business Requirements for an Effective Marketplace

In order for an effective marketplace to be established, regulatory agencies need to provide certainty to purchasers that their participation in the marketplace will satisfy their legal requirements to mitigate or offset impacts. In addition, the transaction costs associated with purchasing a credit cannot be out of line with the costs of performing an alternative mitigation strategy.

To be effective:

- Regulatory agencies must have a streamlined process so that agreements can be reached and implemented. Agencies often lack the required resources or staff to do this, so implementation of banking agreements may be difficult without additional funding from the legislature/congress or from a fee-for-services mechanism.
- Agencies must be assured that banks are accountable, that the property sites are providing the intended benefits and that there are appropriate financial assurances in place to make

sure that management of the sites will continue well into the future. In addition, agencies will want to make sure that the property remains dedicated for the mitigation purpose for the appropriate period of time. All this inspection, review, record-keeping, and administration cannot add undue costs or time to the transaction.

- Banks must take on the risk of the liability but also will need to initially incur much of the transaction costs. In doing so, they will need to make sure that the cost of credits do not become higher than the costs of performing alternative mitigation.

Many of these assurances can be accomplished through appropriate legal documents. However, legal documents can drive up the transaction costs, which in turn will drive up the price of the credit. Standardized documentation will help reduce transaction costs going forward.

G. Legal Elements and Documentation

Conservation easements are one common legal mechanism that helps protect a site from uses inconsistent with the mitigation purposes. Conservation easements are recorded in the land records for the county and protect the property's conservation values over time. Essentially the owner (seller) agrees to restrict or forgo certain activities and also grants the right to an easement holder to monitor and inspect the site. The holder of an easement has the right to enforce its terms. In some areas, the state attorney general may also have the ability to enforce the terms of the conservation easement.

A conservation banking agreement is another critical document. Basically the bank is selling the purchaser the qualified release of legal liability; that is, the purchaser is no longer legally responsible for the success of the mitigation or conservation effort. That responsibility is transferred to the bank. This limitation of liability is qualified because there is no statutory mechanism in place to recognize this transfer of legal liability. Therefore, the end result could be much like CERCLA, where a private indemnity contract is not binding on the agency but may be valid to transfer legal liability between parties.

The purchaser must engage in due diligence, as mentioned above, into the security of its transaction with the bank to ensure the financial viability of the credit. This due diligence helps confirm that the purchaser will not be required to perform further mitigation in advance of the expiration of the life of the credit.

Part of the due diligence is examining the banking documentation. For example, banks should have generally standardized legal documents detailing the type of credits it will yield, in which areas the credits can be sold, the obligations of the banker, manager and agencies and the supporting legal and financial documentation to ensure the bank's compliance. This includes things like template title reports and environmental site assessments to make sure the site is truly suitable for the proposed mitigation. Finally these documents should be readily revised to a specific deal and the comprehensive long-term management plan for site stewardship should detail the costs to manage the site for basic activities (fences, signage, insurance, clean-up, taxes

if appropriate, etc.) and future management such as invasive removal and other types of land management.

H. Purchaser Experiences from Other Markets

1. Reducing barriers leads to more action in voluntary markets

- A local law firm wanted to offset one office using the Chicago Climate Exchange, but was told that the firm must offset all offices, not just one and was therefore rejected. Had there been a reduced barrier to entry into a voluntary market, then there might be more and wider spread participation.

2. Gaming the system possibilities

- In carbon markets, there are stories of parties that build polluting facilities in developing countries at a loss and then make money in Clean Development Mechanism credits (CDM). That is, a corporation builds a facility without regard to its emissions or that is largely unsustainable and then seeks to offset its emissions or imprint through CDM. Thus, the project is purposefully built to be unsustainable and offset through credits in a way that may increase overall emissions and create false credits.

3. Problem of additionality

- Additionality can be defined as real, measurable and long-term results which provide environmental benefits that would not have otherwise occurred. The use of black liquor in kraft paper manufacturing illustrates the problem of additionality. To make kraft paper, the pulp is distilled under conditions of high heat. The byproduct is a high energy content waste product called black liquor. It is recycled and fed back into the system as green liquor, which recaptures the energy to run further processes. This green liquor is a biofuel. If biofuels are mixed with diesel, then the user qualifies for a tax credit. Therefore, if one gallon of diesel is mixed with the green liquor, the user qualifies for a nice tax credit, but there is no advantage to the system.

4. Location

- For banks such as wetlands banks, which are prevalent and generally well accepted within the Pacific Northwest, the maxim of "location, location, location!" becomes critical. The challenge is to have an expansive area as possible for banking to capitalize the bank, while recognizing that a wetlands offset may be limited to a microregion because of the project location. Using the example of the metro area, land inside the urban growth boundary, where most projects occur, is a good choice in theory for an offset; however, the cost of the land inside the UGB drives up significantly the cost of the credit, which makes the cost of the offset much more expensive for the developer. The best sites, from a developer's perspective are located just outside the urban areas, where land is less expensive and yet still proximate enough to the proposed project to provide

the offset. Development clients prefer the widespread availability of wetlands banking, that do not need to undertake the mitigation themselves, that the transactional costs remain an affordable alternative, and that the time to implement a transaction remains reasonable. From the buyer's perspective, in a well-established market with transactional efficiency, there is no real downside.

5. Water Quality Trading Programs

- Clean Water Services presents great local example of thinking globally and acting locally. Instead of thinking of its permits as individual decisions and processes, it engaged with the agency to think about its permits globally, which enabled it to devise a strategy where it pays farmers to plant trees near streams, thus cooling the water and mitigating the temperature pollution created by CWS's wastewater treatment plants. Its stormwater permits were also included in the global permitting process, which enabled them to think more comprehensively about the overall strategy, thus resulting in cost savings that helped the environment too.

I. Non-Economic Benefits of Ecosystem Services Credits

In addition to promoting the health of the environment, and providing a business benefit to consumers, ecosystem services credits may also help pave the way to managing potentially challenging relationships. For instance, the use of ecosystem services credits has the potential to promote regulatory goodwill, which may in turn provide support for future projects. In addition, ecosystem services credits can also promote better relationships within local communities, where otherwise there would be opposition to development. Ecosystem services markets also provide a good opportunity for self promotion of sustainability efforts and "green" branding and may allow for a business to distinguish itself in a competitive market. Internally, this may also improve employee morale and externally, may reflect the broader business values of the corporation.

J. Conclusion

To function and endure, a market must provide:

- Regulatory certainty
- Reduced transaction costs
- Reduced risk of liability for the purchaser
- Efficient and cost effective mitigation
- Potential for management of mitigation in perpetuity or through the life of the credit.