NATURAL RESOURCES




Economic and Revenue Forecast

Fiscal Year 2010
First Quarter

September 2009

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

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Acknowledgements

The Washington State Department of Natural Resources' (DNR) *Economic and Revenue Forecast* is a collaborative effort. It is the product of information provided by private individuals and organizations, as well as DNR staff. Without their contributions, the quality of the Forecast would be greatly diminished.

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Acronyms and abbreviations

Bbf	Billion Board Feet
CDN$	Canadian dollar
CPI	Consumer Price Index
CV	Clear Vision Associates
Cwt	Hundred pounds
CY	Calendar Year
DNR	Washington State Department of Natural Resources
FDA	Forest Development Account
Fed	U.S. Federal Reserve Board
FOMC	Federal Open Market Committee
FY	Fiscal Year
GDP	Gross Domestic Product
IMF	International Monetary Fund
ISM	Institute for Supply Management
mbf	Thousand board feet
mmbf	Million board feet
NAFTA	North American Free Trade Agreement
OPEC	Organization of Petroleum Exporting Nations
PPI	Producer Price Index
RCW	Revised Code of Washington
REIT	Real-Estate Investment Trust
RISI	Resource Information Systems, Inc.
RMCA	Resource Management Cost Account
SAAR	Seasonally Adjusted Annual Rate
TIMO	Timberland Investment Management Organization
US$	U.S. dollar
WWPA	Western Wood Products Association
WTO	World Trade Organization
Y	Japanese yen

Preface

This *Economic and Revenue Forecast* projects revenues from Washington State trust lands managed by the Washington State Department of Natural Resources (DNR). These revenues are distributed to management funds and beneficiaries as directed by statute. The Forecast information is organized by source, fund, and fiscal year.

DNR revises its Forecast quarterly to provide updated information for trust beneficiaries and department budgeting purposes. (See the Forecast Calendar at the end of this section for release dates.) We strive to produce the most accurate and objective forecast possible, based on the current policy direction of the department and available information. Actual revenues will depend on the department's future policy decisions and changes in market conditions beyond the department's control.

This Forecast covers fiscal years 2010 through 2015. Fiscal years for Washington State government begin on July 1 and end on June 30. For example, the current fiscal year, FY 2010, runs from July 1, 2009, through June 30, 2010.

The baseline date (the point that designates the transition from "actuals" to forecast) for this Forecast is August 31, 2009. The forecast beyond that date is based on the most up-to-date market information available at the time of publication.

Unless otherwise indicated, values are expressed in nominal terms without adjustment for inflation. Therefore, interpreting trends in the Forecast requires care to separate inflationary changes in the value of money over time from changes attributable to other economic influences.

Each DNR Forecast builds on the previous one, emphasizing ongoing changes. Before preparing each Forecast, international and national macroeconomic conditions and the demand and supply for forest products are re-evaluated. The impact on projected revenues from DNR-managed trust lands is then evaluated given the current economic conditions and outlook.

DNR Forecasts provide information that is used in the *Washington Economic and Revenue Forecast* issued by the Washington State Economic and Revenue Forecast Council. The release dates for DNR’s Forecasts are determined by the state’s Forecast schedule and prescribed by RCW 82.33.020. The table below shows the anticipated schedule for DNR's future Economic and Revenue Forecasts.

Economic Forecast Calendar

Forecast Title	Baseline Date	Draft Data Release Date	Final Data and Publication Date (approximately)
November 2009	End Q1, FY 2010	Nov. 6, 2009	Nov. 30, 2009
February 2010	End Q2, FY 2010	Feb. 5, 2010	Feb. 26, 2010
June 2010	End Q3, FY 2010	June 8, 2010	June 30, 2010
September 2010	End Q4, FY 2010	Sept. 10, 2010	Sept. 30, 2010

Introduction and Forecast Highlights

Recently, the President and national economists announced that the recession is over. Will DNR revenues soon return to the prosperity of 2007? Far from it!

In the first place, recession means that the economy is contracting—the amount of goods and services being produced is declining. When a recession ends, the economy has stopped contracting. But production levels are still lower than before the recession started. And employment is still falling and likely will continue to fall for the rest of the year. In 2007, the national unemployment rate was below 4.9 percent. Now it is 9.7 percent. Most economists agree that unemployment will grow to over 10 percent. It will be at least four years, perhaps more, before employment and unemployment levels return to 2007 levels.

There are lots of reasons to believe that the recovery this time around will be very slow. Even though consumption has stopped falling, it's not likely to return soon to previous levels. People are saving—and not spending—more than before the recession to rebuild their wealth that was devastated by falling housing prices and stock market prices. With excess production capacity, businesses aren't likely to invest in equipment or hire new people. Only the Federal government will be expanding expenditures and that could mean higher taxes.

Actual Collections in FY 2009. Revenue collection for all of FY 2009 from timber was $1.9 million less than forecast in June. This shortfall in timber revenue was partially offset by lease revenues which were $0.6 million more than forecast. This was due to higher-than-expected agricultural lease revenue. The net result was a $1.3 million or seven tenths (0.7) percent shortfall from that forecast in June.

Market Changes since June Forecast. Things are finally starting to look up (but when you are in such a deep hole, it's hard to look anywhere but up). Over the last three months, housing starts are up by 9 percent from the previous three months, but down by 43 percent from the same period last year.

Timber Sales Prices. Composite DNR stumpage prices (based on composite log prices) reached a low in April of just $130/mbf. From that point composite stumpage prices have increased by 28 percent to $165/mbf. Still, this is 37 percent less than stumpage was last year at this time.

For the first two months of the new fiscal year the average prices for DNR timber sales was $183/mbf due, in part, to the fact that the department held a number of low valued sales from the market. We now expect prices to average $165/mbf for the full year—up $30/mbf (or 22 percent) from that forecast in June. We also increased the forecast sales prices in FY 2011 by $15/mbf (or 9 percent) to $180/mbf.

Sales Volume. DNR has made no change to our planned sales level. In fact, our sales program is off to a very good start this year, having sold in two months 144 mmbf or 15 percent of the full year's target sales volume of 744 mmbf.

Forecast Removal Volume and Prices. Based on our latest purchasers survey (conducted in early August), purchasers currently plan to harvest 29 mmbf or 5 percent more than we forecast in June during FY 2010. Most of that increase is being brought forward from FY 2011. There is very little change in the forecast volume harvested during the current (2009-11) biennium (up just 4 mmbf or 0.3 percent from that forecast in June).

Because of the increase in forecast sales prices described above, removal prices during the current biennium are up by $15/mbf or 8.3 percent.

Bottom Line for Timber Revenues. As a result of the increase in forecast removal prices, forecast timber revenues are up by $19.5 million for the biennium or 8.7 percent.

Lease and Other Non-timber Revenues. We have made several changes to our projected non-timber revenues which include:

1) **Uplands**
    - **a.** The sale of communication site equipment including towers, and buildings with an estimated value of $10 million dollars
    - **b.** The acquisition of two agricultural properties "City of Pasco" and "Ice Harbor." These properties are forecast to produce an additional $644,000 in income beginning in FY 11
    - **c.** We have increased the expected revenues in FY 10 by $200,000 because of higher-than-previously forecast commodity prices.

2) **Aquatics**
    - **a.** The department received historically high prices for geoducks, averaging over $9.00/lb at the last auction. Based on that strength, we have increased the forecast geoduck revenue in FY 10 by $1.0 million.
    - **b.** As noted in earlier forecasts, aquatic lease revenues have fallen short of forecast levels in FY 2009 by about $0.4 million. Based on this poor performance, we reduced projected revenues by $0.1 million in FY 2010 and beyond.
    - **c.** On August 31, 2009, the department entered into a right-of-entry agreement with Taylor Shellfish on DNR managed second class tidelands to harvest geoducks in the area. Taylor will make a payment of $0.5 million within the next 12 months and two additional payments of the equal amounts would then be made 12 months and 24 months after the first payment. The first payment is due no later than early FY

2011, increasing the forecast revenue by $0.5 million in FY 2011, 2012, and 2013.

See **Table 3.2** at the end of this report for the Forecast of revenues to specific funds.

Caveats. This Forecast does not include any adjustment for defaults, liquidated damages, or extensions[1]. The department currently has just under $30 million (down from $45 million last quarter) worth of timber contracts valued at an average of $330/mbf that will expire by the end of this calendar year ($26.2 million by the end of October). Extensions will only affect the timing of revenues (assuming that extended sales are eventually harvested), but future liquidated damages and defaults would have a major negative impact on our revenues.

Special Note: We received notice from three purchasers that they intend to exercise the liquidated damages option of their contract at the end of September. These sales have a total value of $3.0 million dollars. This would reduce timber revenues by $2.0 million below that in this Forecast, including $600,000 to RMCA.

[1] Liquidated damages are specified in some DNR contracts and allow the purchaser to terminate the sales by returning the unharvested timber to the department and paying a fee which is less than the full value of the contract.

Part 1. Macroeconomic Conditions

Financial conditions have clearly eased compared to the darkest days of the financial crisis. But the financial system is still far from healthy and tight credit is likely to put a damper on growth for some time to come.

Janet L. Yellen, President and CEO
Federal Reserve Bank of San Francisco
September 14, 2009

U.S. real gross domestic product (GDP) contracted at an annual rate of just over 1 percent in the second quarter of CY 2009 bringing the contraction for the last four quarters to 15 percent from last year at this time. Despite continued bad news on U.S. employment, we still expect that the second quarter was the last quarter of contraction and that the economy will start to recover next quarter, growing at an annual rate of 2 percent. The magnitude of the current U.S. recession is the deepest since the Great Depression and it will be late 2010 or even early 2011 before U.S. GDP returns to the level it was in mid 2008.

China and India are the only real bright spots in world economic growth where real GDP has slowed to just 4.8 percent. Although this is significantly less than half of the 10.6 percent rate they managed in 2007, growth in China and India has not gone negative and both nations are already on their way to recovery. The other developing economies of the world are expected to contract by 1 percent this year, compared to 5 percent growth in CY 2008 and 6 percent the year before.

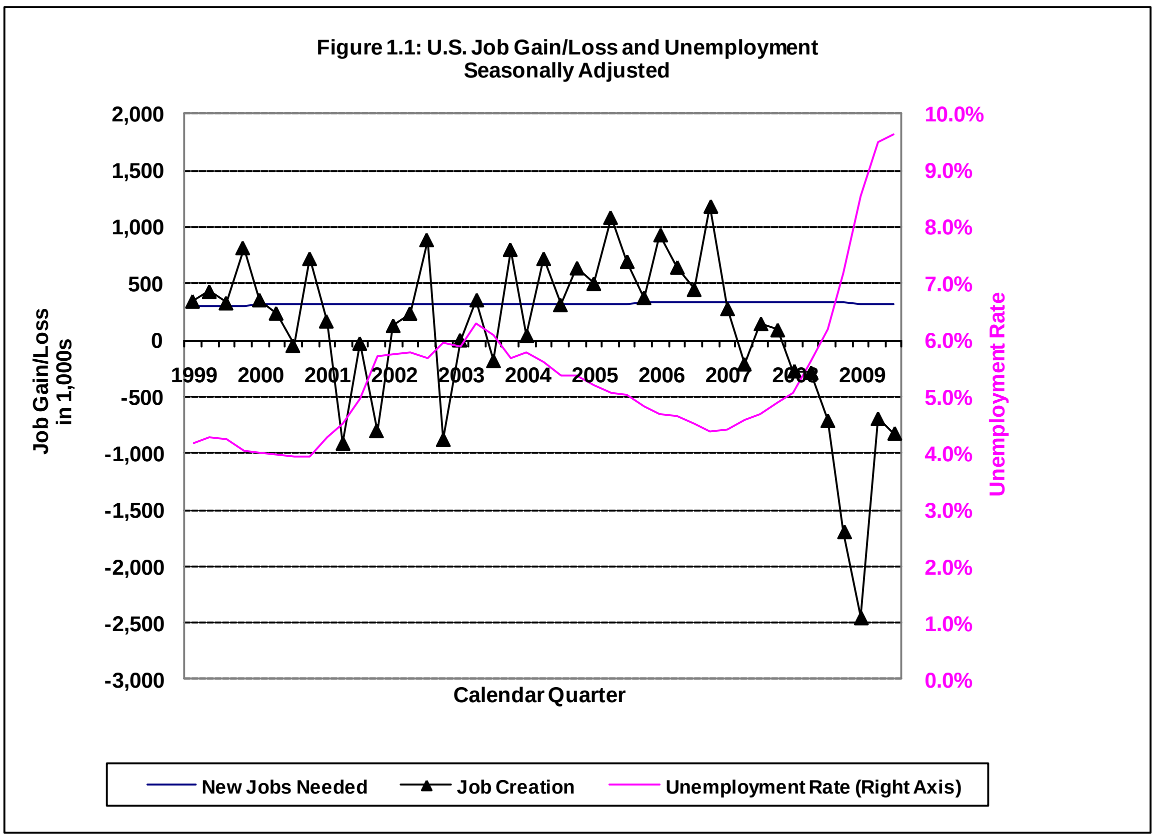
U.S. economy

Employment. Since May of CY 2008, the U.S. economy lost 6.6 million jobs (400,000 since the June Forecast) and the unemployment rate increased from 5.0 percent to 9.7 percent. During the second quarter, the economy lost 691,000 jobs. In July, the economy lost 155,000 jobs. In August, the total of jobs lost jumped to 392,000, the highest level since May. We expect the total loss for this quarter will be 820,000 jobs. (See **Figure 1.1** for detail.)

It is hard to overstate the magnitude of these numbers. This isn’t just the greatest job loss our economy has suffered since the Great Depression —it pummels all others. The next largest job loss was the 1981-82 recession, when unemployment rose by 3.8 percent. This recession will likely trigger a 5.5 percent (from 4.5 percent to over 10.0 percent) increase in the unemployment rate. The U.S. economy is much larger today. During the 1981-82 recession the economy lost 2.0 million jobs—only 30 percent of the jobs lost to date in this recession. Furthermore, the jobs lost in the 1980 recession were temporary layoffs. It took just six months for jobs to recover to their former high. This time many lost jobs are not coming back, and we believe it will take four years to regain former employment levels.

In normal times, the US economy needs to create 110,000 net new jobs each month just to keep up with average growth in the labor force and prevent the unemployment rate from increasing. But these are not normal times. The workforce has actually shrunk since the recession began. An estimated 1.7 million extra people quit looking for jobs, stayed (or returned) to school, or simply are waiting at home until better times return. If they hadn't given up, the unemployment rate would already be over 10 percent. In August alone, 758,000 people gave up looking for work because they believe there are no jobs for them. That is nearly double the figure of a year earlier.

This doesn’t include the 9.1 million (six percent of the workforce) who are "under employed" (workers with part-time jobs, but would prefer to work full time). Before the recession began, there were just 4.5 million under-employed workers.



This recovery will be tenuous at best. There is a lot of slack in the economy, so businesses don’t need to add employees to increase output. We expect employment growth will lag behind the recovery of economic activity. The under-employed will be the first to recover, they will see their hours increased back to full time. Even after the job market starts to improve, the unemployment rate will remain high, as more people come out to look for work.

We could see an additional 1 million jobs lost before net job creation returns to positive territory early next year. If so, the unemployment rate will peak right at 10.3 percent—assuming that the total work force remains constant. The unemployment rate could hover around 10 percent for two years or more as firms try to do more with the same number of workers for as long as possible.

Inflation. The Consumer Price Index (CPI) fell at an annual rate of 1.9 percent in July and by 2.1 percent over the past twelve months—the highest year-over-year decline since January of 1950. The core CPI, which excludes volatile food and energy prices, increased by an annual rate of just 0.4 percent over the three-month period ending in July and increased 1.5 percent over July of last year. The overall CPI has been running at or near zero for the last nine months (on a 12 month basis) because of falling energy and food prices (See **Figure 2.1**) and is likely to remain negative for the next three months.

Economists are split into two camps about inflation risks going forward:

- The "high inflation" camp worries about the long-term inflationary implications of the massive fiscal and monetary stimulus packages (and accompanying massive federal budget deficits) that prevented a second Great Depression. This group worries about the Fed's monetary policy. They believe the Fed's efforts to stimulate the economy have created excess money supply that is currently being hoarded by banks. When unleashed, it will quickly increase demand and drive up inflation. They worry that the Fed won't be able to reduce the money supply fast enough to prevent a surge in inflation, because political pressures will force them to keep interest rates low to accommodate the growing government debt.

- The other camp is concerned that economic slack and downward wage pressure are pushing inflation below rates that are considered consistent with price stability and that this could easily lead to deflation.

Prices are inherently unstable, and both of these scenarios are possible paths the economy could take—both of which the Fed should diligently avoid. But at this time, the more significant threat to price stability over the next several years will come from the disinflationary forces. The enormous slack in the economy, and (if the forecast for only moderate growth holds) the resulting weak economy could easily fall back into recession. With the Fed funds rate already effectively at zero, the Fed itself is predicting that "economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period."

The Fed has two somewhat opposing statutory goals of "full employment" and "price stability." For now the Fed expects "inflation will remain subdued for some time." This should give them room to stimulate the economy and keep interest rates low while promoting the goal of full employment. When full employment returns, the Fed will need to shift its focus back to controlling inflation. Getting the timing right will not be easy.

Interest Rates. We expect the Fed to hold the federal funds rate between 0 percent and 0.25 percent until late next year—perhaps even longer. This the Fed can do easily. The Fed also wants to keep longer term rates low—including mortgage rates in the 5 to 5.25 percent range. In fact, mortgage rates have come back down this month to 5.25 percent. They had increased to 5.34 percent in July.

Keeping longer term rates down won't be so easy. The Fed needs to sell trillions of dollars in Treasuries to fund soaring budget deficits. Since March, the yield on the 10-year Treasury jumped from 2.5 percent to 3.44 percent, an increase of 38 percent! To keep foreign buyers interested, yields are expected to increase to over 4 percent early next year. And as the global economic recovery and budget deficit concerns grow, the U.S. dollar will likely continue to weaken. The Fed will struggle to hold 10-year bond rates below 4 percent, which will push mortgage rates up towards 6 percent and even higher.

Mortgage rates will remain low by historical standards (mortgage rates were 6.5 percent last year at this time). Hopefully, higher interest rates won't prematurely choke off the recovery of the economy in general and housing starts in particular.

U.S. Consumption. High unemployment will be the dominant factor depressing US household consumption over the next year and a half. Of course, current consumption is getting a boost from the fiscal stimulus packages. But these programs are temporary. Over the long term, consumers face daunting issues of their own balance sheets—restoring the wealth that was lost during this recession.

For years prior to this recession, households went on a spending spree. This occurred during a period that economists call the "Great Moderation," about two decades when recessions were infrequent and mild, and inflation was low and stable. Credit became ever easier to get and consumers took advantage of this to borrow and buy, buy, buy.

Stock and home prices rose year after year, giving households additional wherewithal to spend nearly all their income while their wealth increased. As a result, the personal saving rates fell from around 10 percent in the mid-1980s to 1½ percent or lower in recent years. From 1960 to the mid-1980s, debt represented 65 percent of disposable income. Since then, it has risen steadily to about 130 percent of income.

It appears we are witnessing the start of a new era for consumerism in America to rebuild wealth the old fashion way, by actually saving, rather than through capital appreciation. The personal saving rate is now on the rise, averaging almost 4½ percent so far this year. While certainly sensible from the standpoint of individual households, this retreat from consumption of almost 100 percent of income could reduce consumer spending for years.

Unemployment, job insecurity, low income growth, and reduced wealth will undoubtedly take a toll on consumption over the next year and a half. Given the economic problems facing consumers, the chances are slim for a robust rebound in consumer spending, which represents around 70 percent of economic activity. It's shaping up to be another Scrooge holiday season this year.

Trade. Net export which has been a drag on the U.S. economy has become a positive. Export growth was negative in the second quarter of 2009, but imports fell even faster and net exports consequently added 1.38 percent to real GDP growth. Going forward we expect the U.S. trade gap will continue to narrow, as U.S. consumption fades relative to world consumption. This will be facilitated by a weaker U.S. dollar which will help boost U.S. exports and limit imports.

U.S. Real Gross Domestic Product. Despite continued reduction in U.S. employment, and consumer spending including lackluster housing markets, we expect positive growth in the third quarter for the U.S. economy. But the rate of growth will be below potential (now at 2.75 percent) at just 1.5 percent for the second half of CY 2009. This depends in part on continued high levels of government spending, continued easy money policy by the Fed, and continued growth of our trade partners and net U.S. exports. The lackluster growth will continue well into CY 2010 which could average just 2.0 percent for the full year.

World economy

For perhaps the first time since World War II, the world is being led out of a recession by someone other than the U.S. The Asian economies are growing fast, and Europe, led by its two biggest economies Germany and France, is showing signs of recovering before the U.S. and Great Britain. Asia is leading the way through its increase in domestic demand and increasingly decoupling its growth from Western markets.

This recovery is being led by China, but consumption in the surrounding industrialized Asian countries (Japan, Hong Kong, Macau, Indonesia, South Korea, Taiwan, and Singapore) are also growing at an annual rate of 10 percent during the second quarter while the western world continues to contract albeit at a slower rate. Even Japan which has struggled for over a decade is now growing faster than the West as a result of the increased demand from China and surrounding industrialized Asia. Germany and (to a lesser extent) France's surprising growth is attributed to increased export demand from Asia and their own consumer stimulus programs.

China's and India's average growth rate of almost 8 percent over the past two decades—three times the rate in the developed world—has brought their economies to the point that they matter, and they are to a larger degree self-propelling. In dollar terms, the increase in emerging Asia's consumer-spending this year will more than offset the drop in spending in the United States and Europe.

A combination of factors has helped Asia along. First has been growing consumer demand but also strong central control in particular of the banking system along with large government surpluses. These have allowed the governments to orchestrate and finance quicker recoveries than the West. Perhaps to a lesser degree, more government control has played a similar role in Europe's early recovery.

The way forward for Asia will see some bumps: one is growing asset and commodity prices as their economies begin to grow and consume ferociously again. A second is continued currency imbalances. China worries about its growing cache of U.S. denominated assets yet is unwilling to let the value of its currency rise. But these concerns are not new and in many ways the “Great Recession” in the West has been only a pause that refreshes for China. They are emerging even stronger and more confident than ever—returning to the more familiar frenzy of growth.

Asia’s emerging economic dependence on exports to the U.S. has been overstated. The U.S. accounted for only 6 percent of the region’s total growth and that will fall as Asia grows. The key to growth in Asia is China and India. And the engine of growth in these countries is not external demand, but internal growing supply of human resources. The continued movement of populations from subsistence underemployment to full employment in domestic industrial and service sectors will create demand not only domestically but increasingly for imports.

The growth gap between Asia and the developed West has never been greater and is likely to remain high as the West’s growth is limited by demographics and high government debt and tax burdens. The sharp downturn in Asia late last year should show its leaders that dependence on export demand has its downside. While the speed and strength of its rebound will show that it need not depend on U.S. for its prosperity. In the long run, further growth of Asia will be good for people of both regions. Japan’s lost decade and its continued slow growth can be traced to its unwillingness to let go of export demand and free its domestic demand. Both its people and its economy have suffered as a result. We don’t expect China or India to make the same mistakes in their pursuit of development.

The IMF is now calling for World economic growth during 2009–10 to be about ½ percentage points higher than projected in the April, reaching 2.5 percent in 2010. For all of 2009, the global economy is projected to contract at -1.4 percent, with the contraction in advanced economies of -5.2 percent being partially offset by growth of 1.5 percent in emerging and developing countries.

Part 2. Log and Lumber Industry Factors

This chapter focuses on the specific factors that affect the stumpage values and overall timber revenues received by the Washington State Department of Natural Resources (DNR).[2] Stumpage prices reflect demand for lumber and other wood products, timber supply, and regional and local milling capacity. The demand for lumber and wood products is directly related to the demand for housing and other end-use markets.

U.S. housing market

The Obama administration's economic successes "will be for naught" if the housing free-fall continues much longer

Mark Zandi
Moody's Economy.com

Housing Prices. The seasonally adjusted Case-Shiller[3] index of existing home prices for the 20 largest metropolitan areas in the U.S. increased by 0.75 percent on a month-over-month basis for June 2009. That's a 9.4 percent annual rate. It was the first increase in the monthly index since July 2006 almost three years ago and a great improvement over the -22 percent annual rate in March and -10 percent in April. On a seasonally adjusted basis, 15 cities saw increases in June, while only five cities (Charlotte, Seattle, Tampa, Las Vegas, and Detroit) continued to see prices fall.

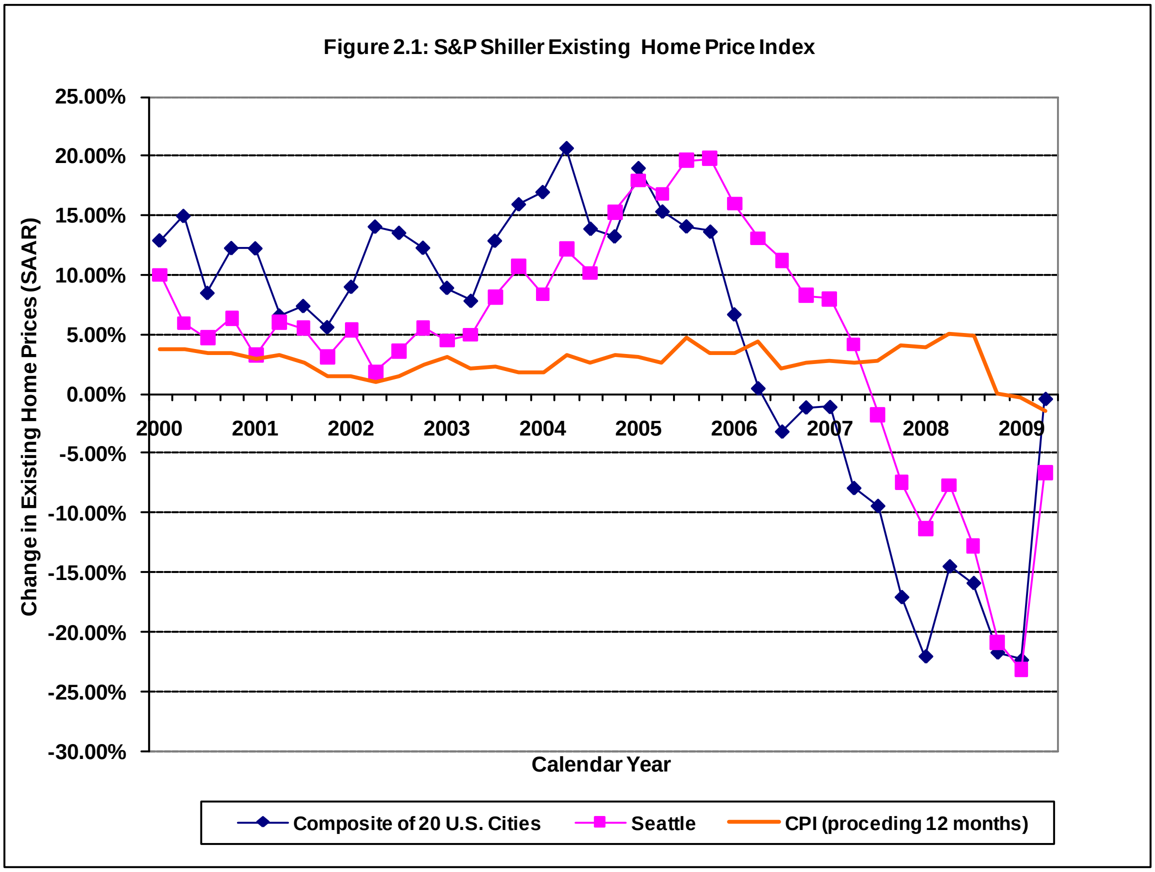
In most markets existing home prices are below replacement prices, which must change before we see significant improvement in housing starts and the demand for lumber and other forest products. Still, it's a great step to recovery.

Recovering to previous price peaks will take at least four years—even in states (such as Texas, Oklahoma, Arkansas, and Wisconsin) that haven't suffered greatly. In hard-hit California, Arizona, and Florida—where the plunge in prices will near 45 percent or

[2] Although DNR timber sales are a significant source of timber in the Pacific Northwest, volumes generally are not sufficiently large enough to affect prices.

[3] The S&P Shiller price index shown here represents about half the total homes in the U.S. The index is heavily skewed towards metropolitan areas where price changes tend to be greater than in less urbanized areas. The S&P Shiller price index is down by almost 32 percent from its peak, while the Federal Reserve puts the reduction in the total value of the U.S. homes at about 18 percent. Using the Fed numbers, the average equity of the Americans in their homes has fallen from almost 60 percent early in the decade to just over 40 percent today.

more—it'll take 15 to 20 years, according to Celia Chen, an economist with Moody's Economy.com. For most of the rest of the country, it will take seven to 12 years before prices regain lost ground. After adjusting for inflation, prices of both existing and new homes are the lowest they have been in 20 years. Zillow.com reported that more than 30 percent of all homes sold during the three months ending June 30 went for less than what the sellers originally paid.



Despite the fact that prices are at or near the bottom, delinquency rates continue to mount. The delinquency rate on adjustable-rate mortgages (ARMs) is now up to about 18 percent, and on fixed-rate loans, it's about 6 percent. This trend is consistent across other major loan categories, and is affecting high- and low-quality borrowers alike. Almost one in four loans is under water where the loan amount exceeds the current market value of the home. Unfortunately, more credit losses are in store even as the economy improves and overall financial conditions ease. For now the problem caused by adjustable mortgages has been muted by low interest rates, but this could quickly change if interest rates rise further.

Remarkably, after three years, foreclosures continue to mount and aren't expected to peak until early next year. According to RealtyTrac Inc., a California-based company that compiles nationwide statistics on foreclosures, U.S. foreclosure filings hit a record 1.8 million in the first half of 2009. In May, filings exceeded 300,000 for the third straight month. The combined percentage of loans in foreclosure and at least one payment past due was 12 percent on a non-seasonally adjusted basis, the highest ever recorded. These new foreclosures will continue to add to the supply of existing homes. Foreclosures now account for one in four sales, and that percentage is climbing.

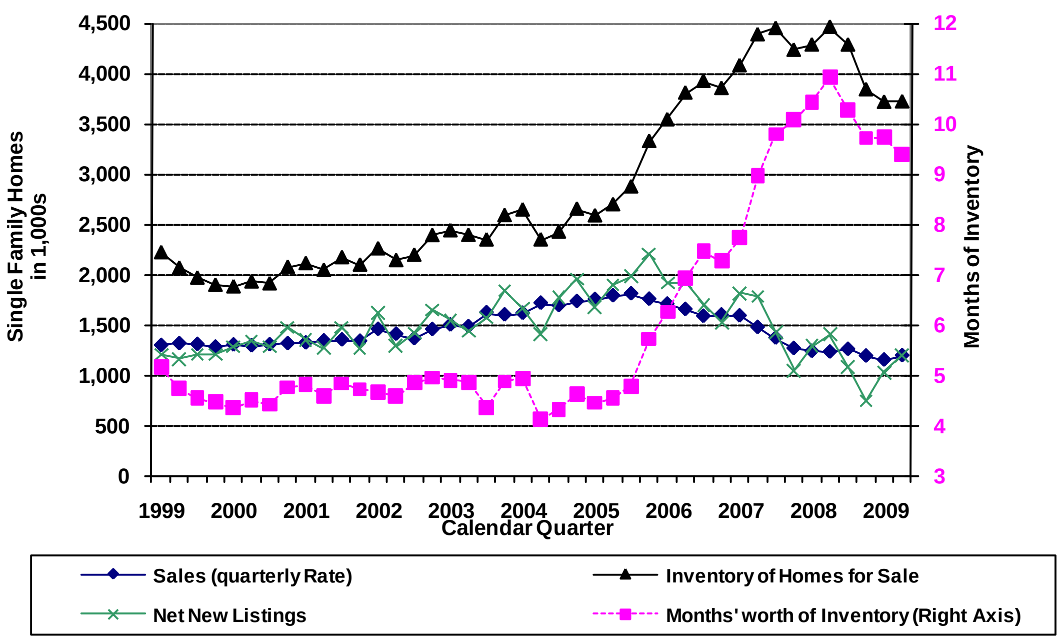
Clearly the Obama administration's strategy to stop foreclosures has not worked as well as hoped. We still wonder why the government has done so little to stem the bleeding at its core (i.e. solve the foreclosure issue). Clearly the housing market will struggle to recover as long as foreclosures continue at elevated rates. Rising joblessness makes matters even worse, spurring additional foreclosures and shrinking the pool of would-be buyers.

"We believe there are in the neighborhood of 600,000 properties nationwide that banks have repossessed but not put on the market,"

Rick Sharga,
Vice President of RealtyTrac.

Existing Home Sales. Sales of existing homes rose in July for the fourth consecutive month but August sales disappointed; existing home sales in the second quarter of CY 2009 were 1.2 million, up by an annual rate of 3.8 percent from the previous quarter. As we predicted, as sales improve, the number of new listings is increasing as well. In the second quarter, the number of new listings matched sales so the inventory of homes for sale remained about constant. The volume of unsold houses at the current sales rates fell to 8.7 months' worth as the constant inventory was divided by a rising average months' sales during the quarter. See **Figure 2.2** for detail.

Figure 2.2: Existing Single Family Homes
Seasonally Adjusted

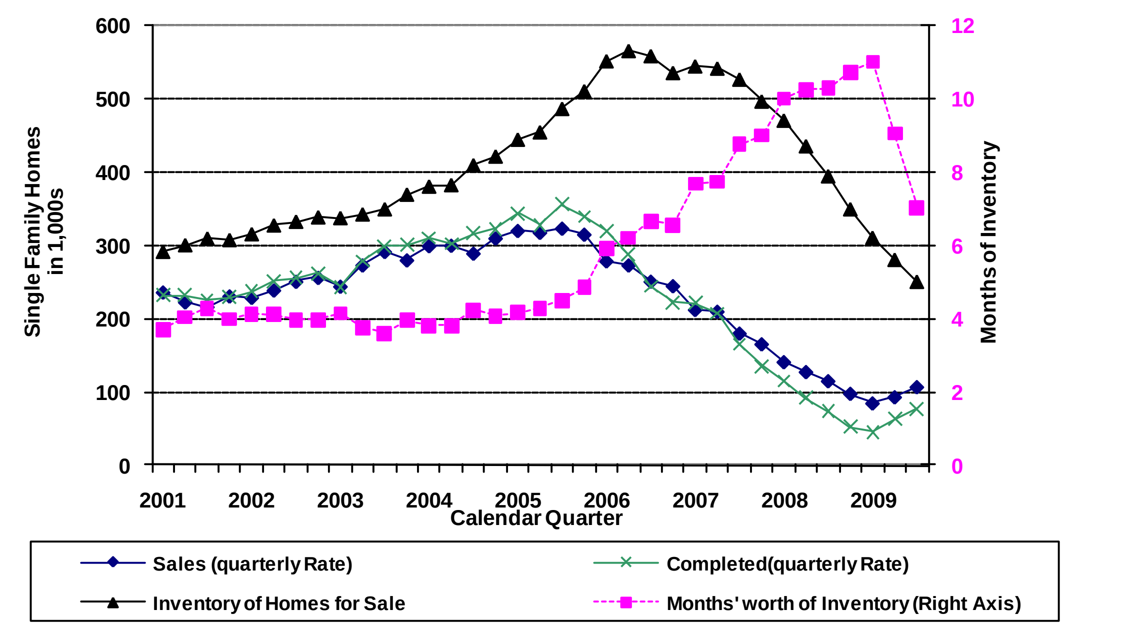


Despite the recent recovery in existing home sales, sales are expected to remain low until housing prices stabilize. Current estimates show that 20 to 25 percent of mortgage holders have negative equity; in other words, the property is worth less than the mortgage(s). Many potential sellers have desperately weak positions. Conditions will have to improve significantly before they can even contemplate putting their home on the market. For now their only choices are to stay put and add more money to a losing proposition and hope for the best or walk away now. And many potential buyers lack enough equity in their current home to trade up.

Banks now hold an estimated 600,000 homes from foreclosure. In addition many sellers are remaining on the sidelines until prices go up. The true number of unsold existing homes is likely understated by a million homes. When prices increase, the added supply will quickly cool any market heat. In a survey conducted by Zillow in July, 29 percent of respondents were at least “somewhat likely” to put their home on the market when the market perked up. The release of this “shadow inventory” could smother the recovery before it gathers speed.

New Home Sales. At last! Finally, new home sales have turned the corner. After falling for three and a half years since late 2005, sales of new homes rose for the fifth straight month through August to 106,500 seasonally adjusted quarterly rate. For the first two months of the third quarter, sales averaged 107,000, up 26 percent from the first quarter, still down 7 percent from last year, and down 67 percent from the peak in 2005.

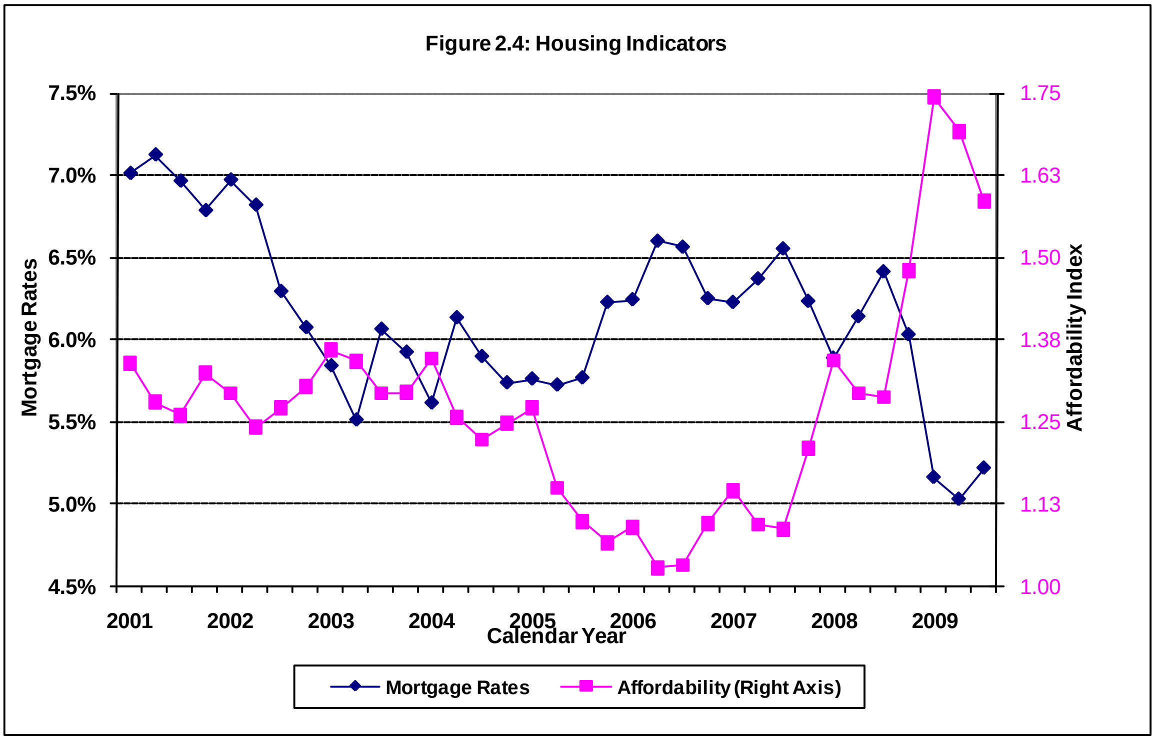
Figure 2.3: New Single Family Homes Built for Sale
Seasonally Adjusted



Despite the fact that the number of completions (net new listings) was up as well, there were still 39 percent fewer homes completed than sold so the inventory of new homes continued to fall. The inventory of new homes for sale is now at historic normal levels but the inventory relative to the current sales rates will remain elevated (now at 7.3

months normal is 4 months worth). And since single family home starts, which take six months to complete, remain low (see **Figure 2.6**), the inventory should continue to fall for the next two quarters at least. The months' worth of inventory will continue to fall quickly over the next year. The pace of sales is a big improvement over first quarter's 11.1 months' worth. See **Figure 2.3** for detail.

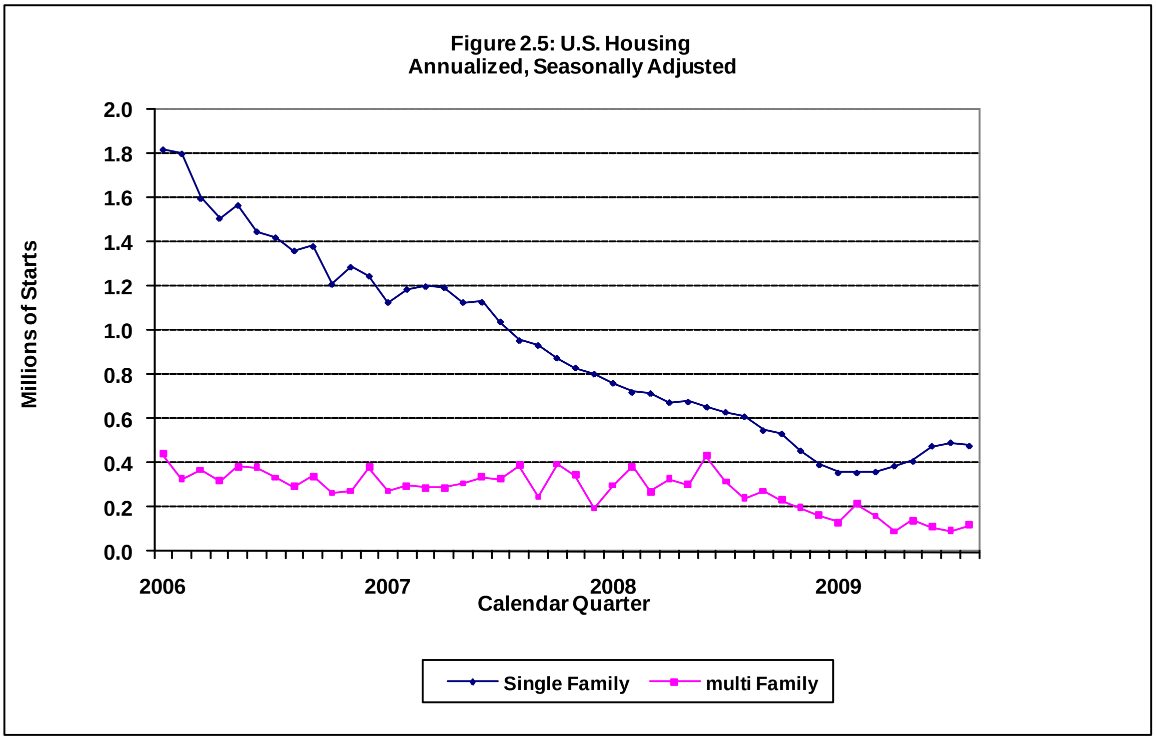
Affordability. Mortgage rates took an unexpected jump in June and stood at 5.34 percent in July. Still, with housing prices (relative to income) at historically low levels, and interest rates up but still low by historical levels, housing remains very affordable—relative to income. **(**See **Figure 2.4** for detail**)**.



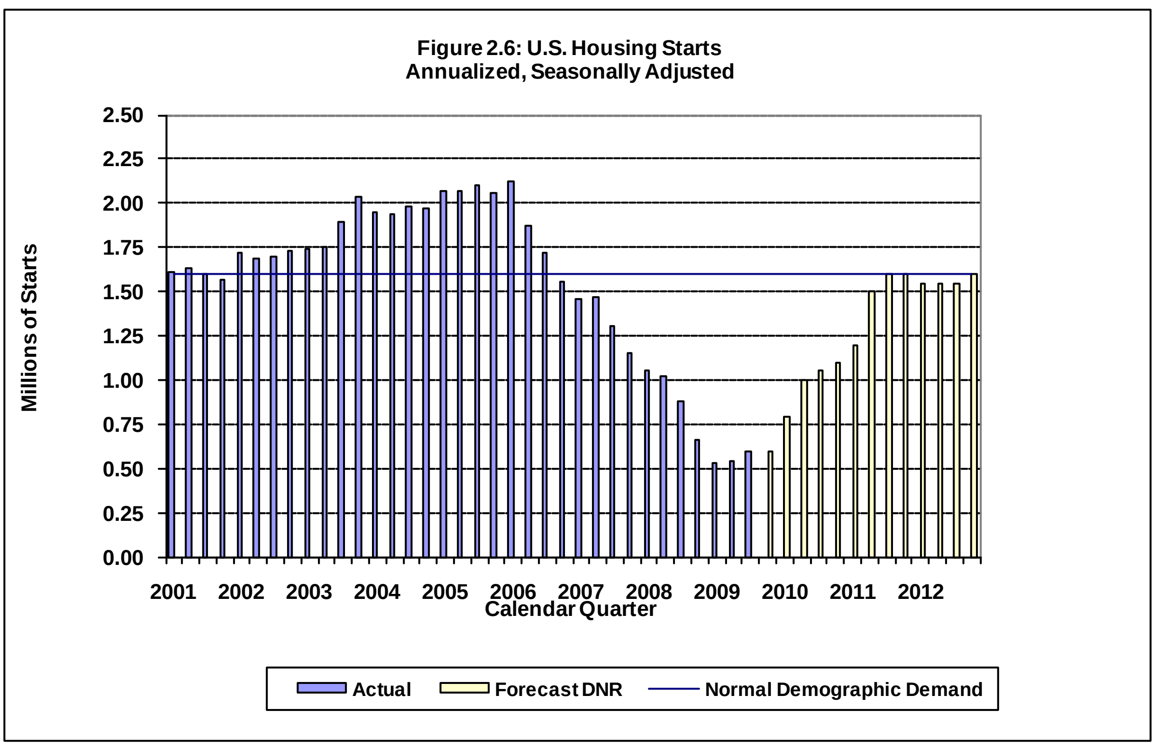
The **Affordability Index** is the ratio of median family income and the income required to qualify for the median-priced existing single-family home. In July 2009 the affordability index was $60,543/$38,208 or 1.585.

Housing Starts. Despite several months of "good news" from housing markets, housing starts still averaged just 540,000 units SAAR in the second quarter. However, that was 6 percent more than we projected and a 2.3 percent increase from the first quarter. As shown above, the inventory of new homes has come down to "normal" levels and the inventory has fallen and likely will fall quickly if and when we see an upturn in buying. (See **Figure 2.6** for detail.)

Single family starts were at a low point of just 357,000 SAAR in January. The levels increased 38 percent in six months, reaching 494,000 in July. They gave back 15 percent in August to 479,000. August's single family starts were down 22 percent from last year and down 72 percent from August of CY 2005. After increasing sharply through June, the level of single family starts may have reached at least a temporary plateau at the 485,000 level. Housing starts may linger at current lows for longer than we forecast as foreclosures rise, high unemployment takes its toll and a temporary home-buyers' tax-credit ends later this year. (See **figure 2.5 & 2.6** for detail.)



Multifamily starts are being hit on two fronts: by tight credit and high vacancy rates. In June, multifamily starts tumbled 25.8 percent to 111,000 units (annual rate)—just above April's all-time low of 91,000 and 74 percent below the 423,000 units started in June



2008. The rental market is being hurt by falling house prices, which is encouraging renters to become homeowners. As a result, rental vacancy rates are going up, the national average jumped 0.6 percentage point to 10.6 percent in the second quarter—a record high (data started in 1956). Our projection for total housing starts for the remainder of CY 2009 is the sum of 485,000 single family starts and 105,000 multifamily starts.

In the next two years, a sustained and vigorous recovery in the housing market will be hindered by the damaged consumer sector, rising joblessness, stagnant household incomes, and an oversupply of low-priced existing homes. Although the Fed wants to keep the federal funds rate low, recovery of global economies and a reduced appetite for government debt could provoke inflationary fears and the raising of interest rates late in the forecast period. As the economy recovers, we expect interest rates to increase quickly by mid-CY 2011, cutting off the recovery in housing markets.

RISI's forecast for housing starts includes a small acceleration in construction over the rest of 2009 and into next year. They expect housing starts to reach 612,000 in 3Q09 and 870,000 in 4Q09 before accelerating to 1.08 million in 2010.

Lumber, logs, and stumpage prices

Western lumber production is forecast to decrease by nearly 26 percent in 2009 to 9.7 billion board feet. That volume is the lowest since the 1930s and represents a little more than half the volume Western mills produced five years ago. Mill capacity utilization has fallen to just 55 percent.

Lumber and Log Prices. West Coast composite dry lumber prices hit a low of just $156/mbf in January of this year, since then they have increased by 40 percent to $218/mbf in August. Still August lumber prices are down 9 percent from this time last year.

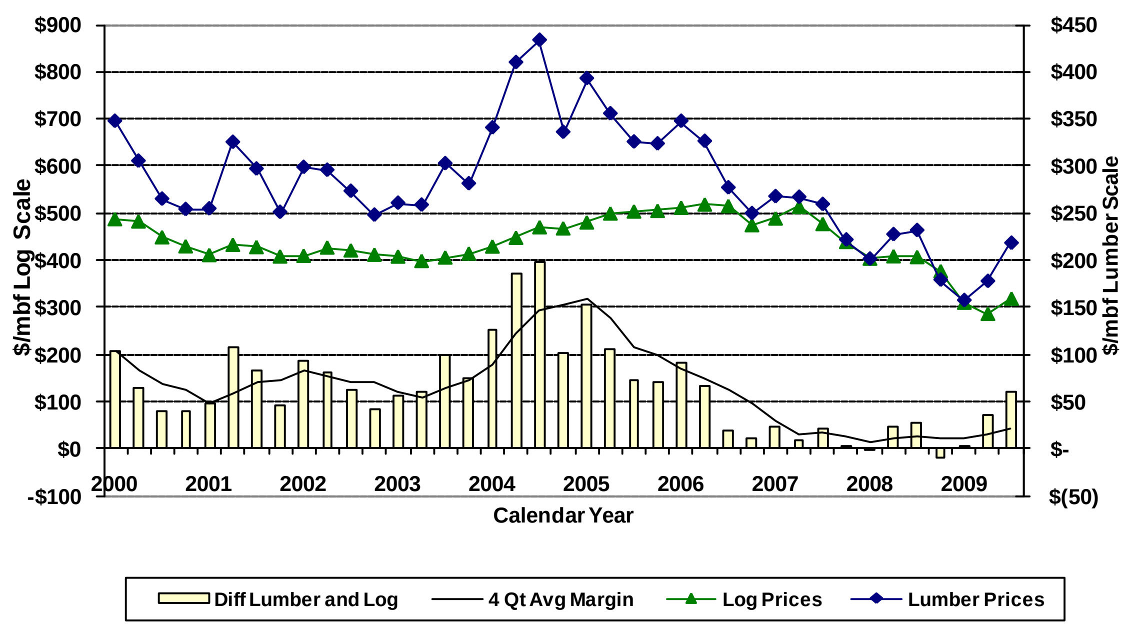
Over the same period (since January) that lumber prices increased by 40 percent, log prices fell by 3 percent or $9/mbf (Scribner log scale).

As a result of higher lumber prices and lower log prices, mill margins that had been pushed close to or even below zero in late CY 2008 and early CY 2009, now are at $121/mbf log scale ($60.50/mbf lumber scale). This is still less than the "normal" markup of $130/mbf log scale ($65/mbf lumber scale) but it is a big improvement from the negative $30/mbf experienced by the mills in the four months October through January. (See **Figures 2.7 and 2.8** for detail.)

A number of seasonal factors helped strengthen lumber prices. One big factor is the strong Canadian dollar. Canadian lumber producers operated below break-even levels through most of August, as recent lumber price gains were undermined by strength in the

Canadian dollar compared to the U.S. dollar. This helped boost prices south of the boarder despite very weak demand.

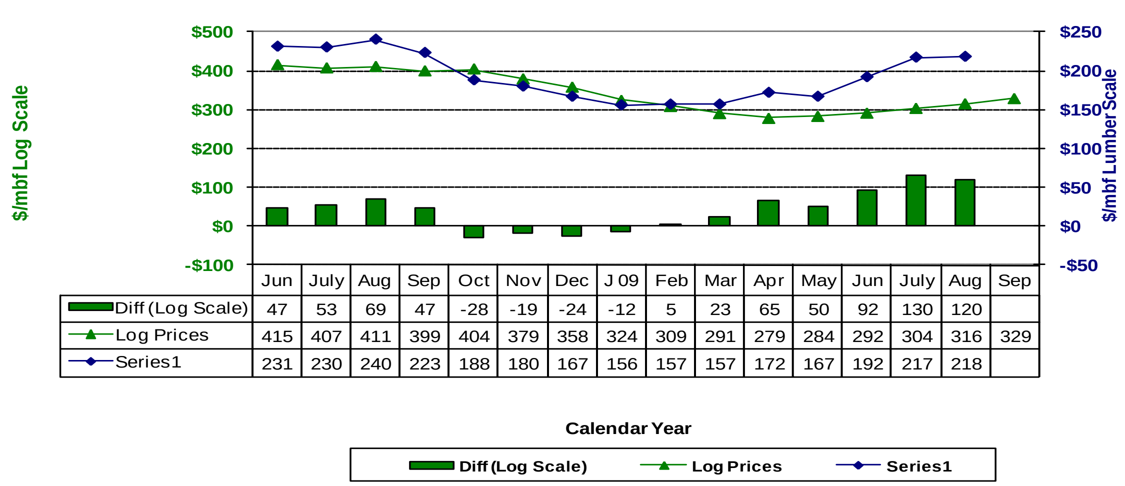
Figure 2.7: Lumber and Log Prices



Note: The volume of lumber (measured in mbf lumber tally) actually milled from logs normally exceeds the Scribner volume measurement. The graph above uses different axes to adjust for the difference in the two measurement scales. Here the relationship is assumed to be 2:1. “Margin” is defined as the average price difference between lumber and logs after an adjustment for the two different measurement scales.

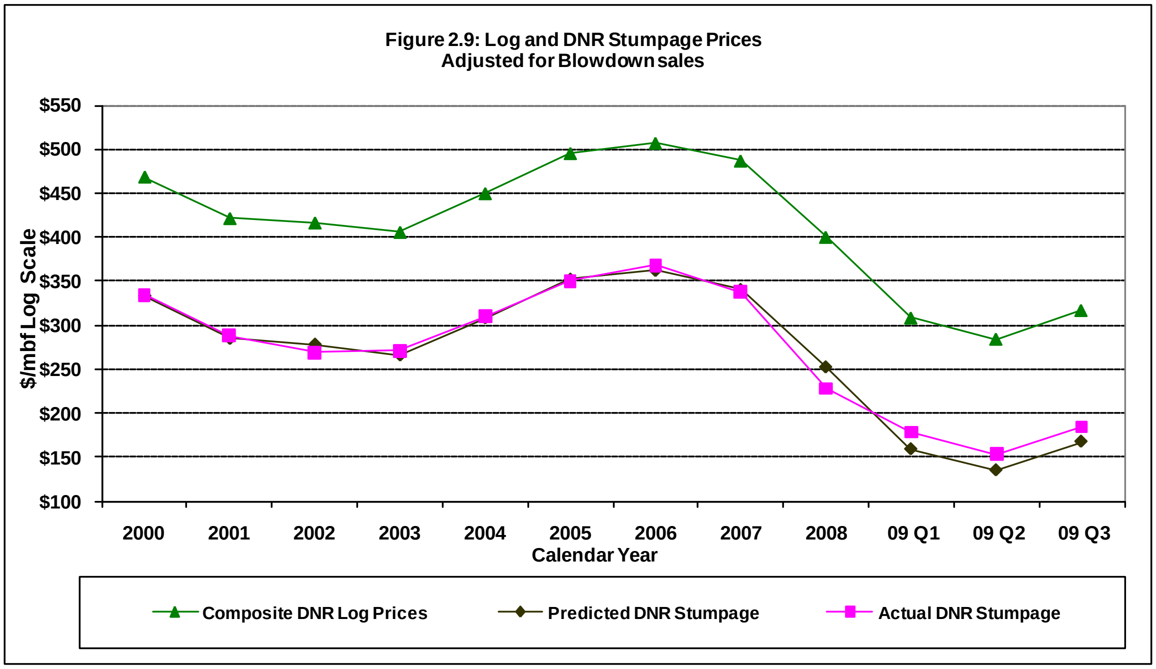
The actual situation faced by some mills is not as attractive as that shown in **2.7**. The average delivered log value of the timber under contract with the DNR is $366 /mbf and the average delivered log value of timber currently being harvested is $360/mbf, compared to current log prices of $315/mbf in August. Some mills may also have agreements (obligations) to purchase private timber at prices above current market prices.

Figure 2.8: Monthly Lumber and Log Prices



	Jun	July	Aug	Sep	Oct	Nov	Dec	J 09	Feb	Mar	Apr	May	Jun	July	Aug	Sep
Diff (Log Scale)	47	53	69	47	-28	-19	-24	-12	5	23	65	50	92	130	120	
Log Prices	415	407	411	399	404	379	358	324	309	291	279	284	292	304	316	329
Series1	231	230	240	223	188	180	167	156	157	157	172	167	192	217	218	

Log and DNR Stumpage Prices. Figure 2.9 shows average annual log prices and the predicted DNR stumpage prices given those log prices vs. actual stumpage prices adjusted for blowdown[4]. In CY 2008, DNR stumpage prices were $25/mbf less than predicted by the econometric model. This difference is probably due to a number of factors but it is most likely that buyers' fatigue (see March 2009 forecast for detail) from disappointing forest product markets and low profits was a major if not the main factor.



During the first three quarters of CY 2009 the actual prices have been $20/mbf or 13 percent more than those forecast by log prices. We believe this is due primarily to the fact that a disproportionate share of the sales that received no bids or were withdrawn by DNR were lower valued sales. Given current log prices of $315/mbf the model is projecting stumpage prices of $165/mbf up from $135/mbf when we wrote the June forecast.

[4] DNR actual prices calendar year 2008 through August and the third quarter are adjusted for blowdown sales (timber damaged in a December 2007 storm in southwestern Washington). The model predicts an average harvest and delivery cost of $155/mbf in FY 08.

Part 3. DNR's Revenue Forecast

This Revenue Forecast includes revenues from timber sales, upland leases, and aquatic leases. It also forecasts revenues to individual funds. Some caveats about the uncertainty of revenue forecasting are summarized at the end of this section.

Timber revenues

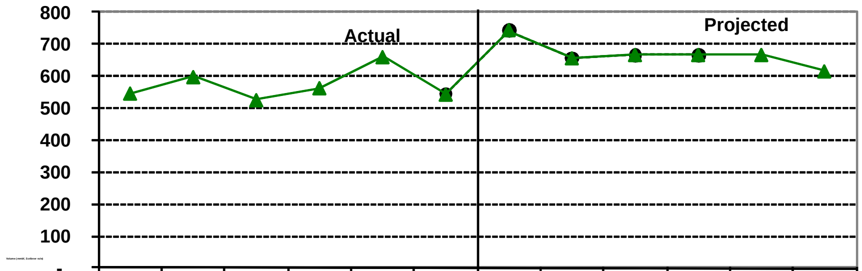
The Washington State Department of Natural Resources (DNR) sells timber through contracts. The department determines the total volume to be offered for sale each month and the minimum bid for each sale. The sale is awarded to the highest bidder and the average sales price ($/mbf) is set at the time of auction. The department collects a 10 percent initial deposit at the time of sale and holds it until the sale is completed. Revenues are collected at the time of harvest (removal). The initial deposit is credited as the last 10 percent harvested. The purchaser determines the actual time of harvest within the terms of the contract. Contracts sold during the last 12 months varied in duration from less than three months to three and a half years, with an average (weighted by volume) of 22 months. As a result, timber revenues to beneficiaries and DNR management funds lag current market conditions.

Timber that is sold but not yet harvested is referred to as "volume under contract" or "inventory." Timber is added to the inventory when it is sold and removed from the inventory when it is harvested.

Timber Sales Volume. During the first two months of FY 2009 the department had better-than-forecast results from our timber sales[5]. Fiscal Year to date, DNR sold 117 mmbf or 16 percent of the volume scheduled to be sold this year. We have made no change in our planned sales from that in the June Forecast. (See **Figure 3.1** for detail).

[5] Department sales results are available on the DNR at: http://www.dnr.wa.gov/BusinessPermits/Topics/TimberSaleAuction/Pages/psl_ts_auction_results.aspx

Figure 3.1: Forecast Sales Volume

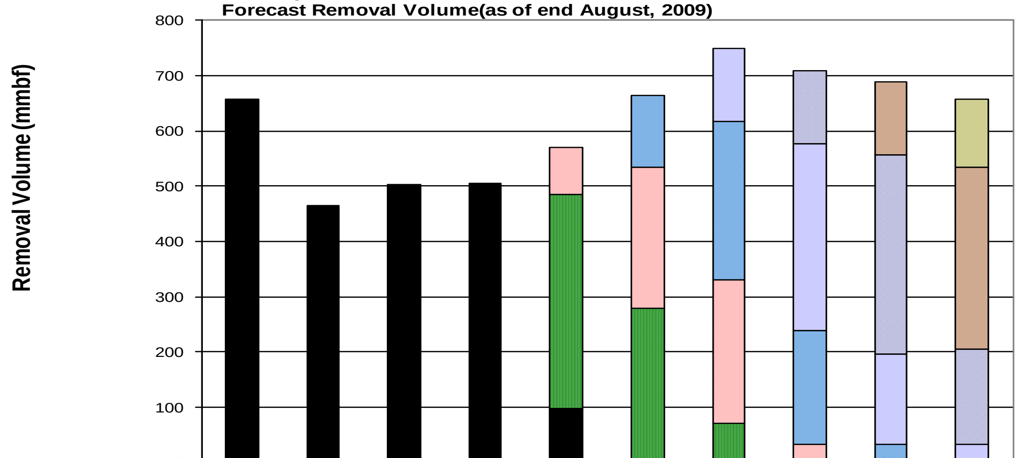


	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast						546	744	657	667	667		
Current Forecast	548	599	528	565	660	545	744	657	667	667	667	616
Change						(1)	-	-	-	-		
Percent Change						0%	0%	0%	0%	0%		

Fiscal year ending June 30

Timber Removal Volume. For each Forecast, we survey the purchasers with outstanding volumes under contract to determine their planned timing of removals. The latest survey,

Figure 3.2: June 2009 Revenue Forecast
Forecast Removal Volume(as of end August, 2009)



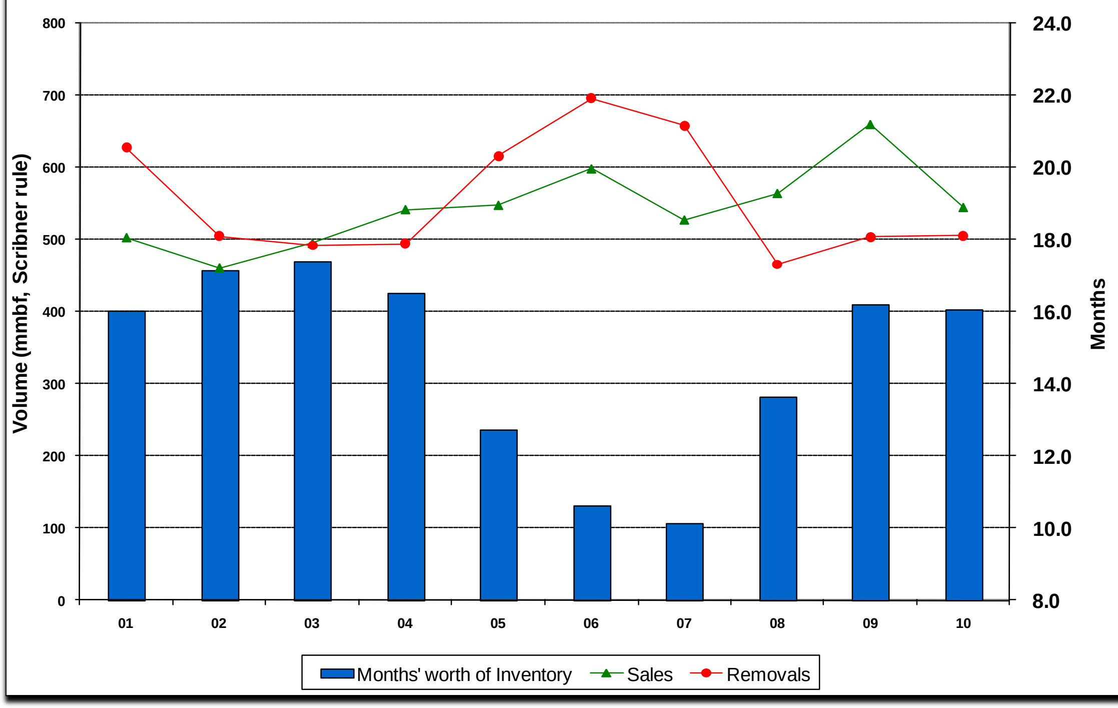
Fiscal Year	06	07	08	09	10	11	12	13	14	15
Sales in FY 15										123
Sales in FY 14									133	329
Sales in FY 13					-	-	-	133	361	173
Sales in FY 12					-	-	133	338	163	32
Sales in FY 11					-	131	287	207	32	-
Sales in remainder of FY 10					84	254	260	31	-	-
Sales Under Contract					388	280	70	-	-	-
Actual Removals to date	658	466	504	506	97					
Total	658	466	504	506	570	665	750	710	690	534

conducted in the first week of August, indicates that purchasers increased their harvest plans for FY 2010. The department currently has 738 mmbf valued at $168 million under contract. Purchasers plan to harvest 388 mmbf, 51 percent of the volume under contract this fiscal year (FY 2010), 280 mmbf (38 percent) next fiscal year and the remaining 70 mmbf (10 percent) next biennium (2011-13). (See **Figure 3.2** for detail.)

Through August (the first two months of FY 2010) purchasers removed 97 mmbf. We estimate that removals during the remaining months of FY 2010 from new sales in FY 2010 will be 84 mmbf.

Removals in FY 2010 and beyond. In 2004, purchasers began to reduce the volume under contract by harvesting more than the department sold. At first we attributed this, in part, to the department's shortened contracts, but learned it was primarily due to higher demand for logs and lumber to feed the growing housing bubble. By FY 2006, the months' worth under contract had dropped to just 10 months[6]. But by the end of FY 2008, purchasers began increasing the volume under contract and the sales-to-harvest duration from 10 months to over 16 months by the end of FY 2009. Sales were just slightly more than removals during FY 2009 so the months' worth of volume under contract remained at 16 months just slightly less than it was earlier in the decade (FY 2001-2004). (See **Figure 3.3** for details.)

Figure 3.3: Timber Volume - Sales and Removal

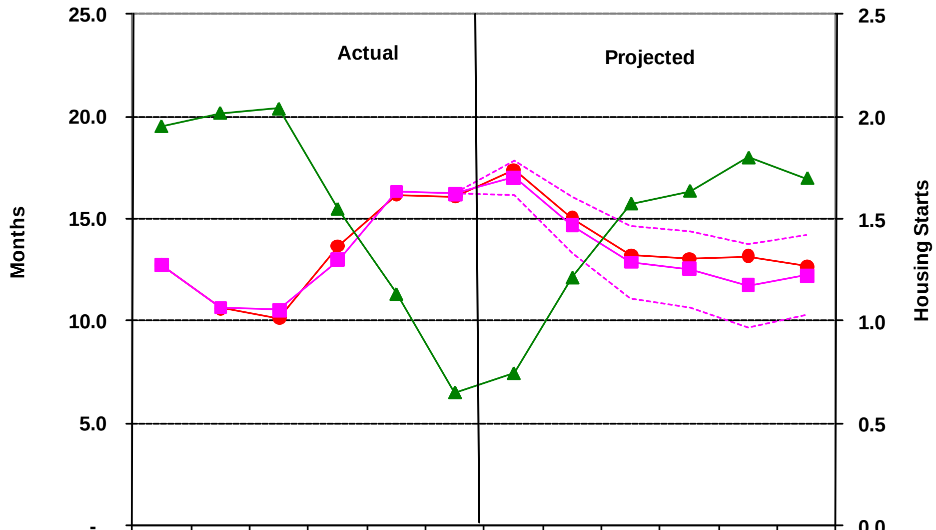


To improve our forecasting ability, we attempted to develop a model to forecast the number of months' worth of inventory under contract. We found a good fit between the months' worth of inventory and housing starts over the historical period. (See March 2009 Forecast for detail.) The projected housing starts shown in **Figure 2.4** were used to

[6] The "months' worth under contract" is calculated by dividing the current volume under contract by the 24 month moving average (12 months leading and 12 months lagging). It also is the average months from the point of sale to harvest.

estimate the months' worth of inventory over the Forecast period. And an upper and lower confidence interval was estimated. (See **Figure 3.4** for details.)

Figure 3.4: Timber Volume - Removal Housing starts (Model 5)

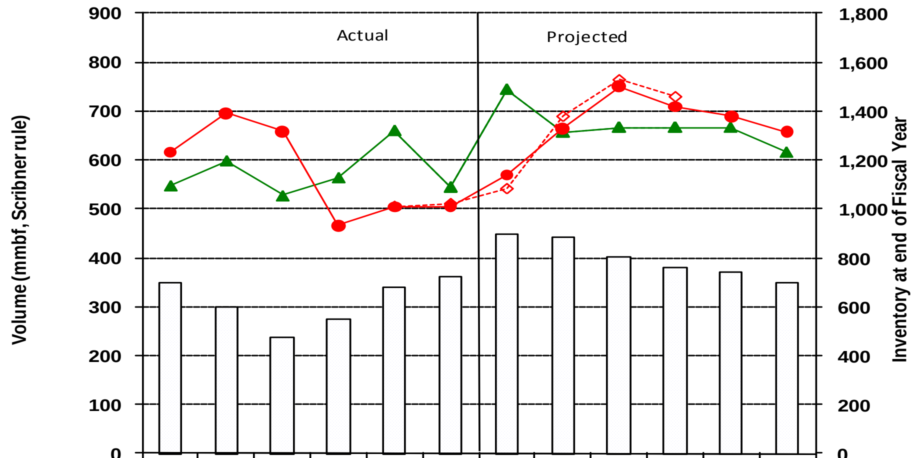


Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Monthsworth of Inventory	12.7	10.6	10.2	13.7	16.2	16.1	17.4	15.0	13.2	13.1	13.2	12.6
Upper 95						16	18	16	15	14	14	14
Predicted Monthsworth	12.7	10.6	10.5	13.0	16.3	16.2	17.0	14.7	12.9	12.5	11.7	12.2
Lower 95						16	16	13	11	11	10	10
Housing starts	1.95	2.01	2.03	1.54	1.13	0.65	0.74	1.21	1.57	1.63	1.80	1.70

Based on the purchasers survey we have increased the forecast harvest for FY 2010 (July 1, 2009 to June 30, 2010) by 29 mmbf. Most of this harvest was shifted from FY 2011. In addition, we have reduced the forecast harvest next biennium by 35 mmbf primarily because of a reduction in forecast housing starts during that period. (See **Figure 3.5** for detail.)

If our forecast holds, the volume under contract will increase to 895 mmbf, or 17.4 months' worth, at the end of FY 2010—up from just 475 mmbf or 10.2 months' worth at the end of FY 2006. The volume under contract is expected to fall to 12.6 months' worth at the end of the forecast period.

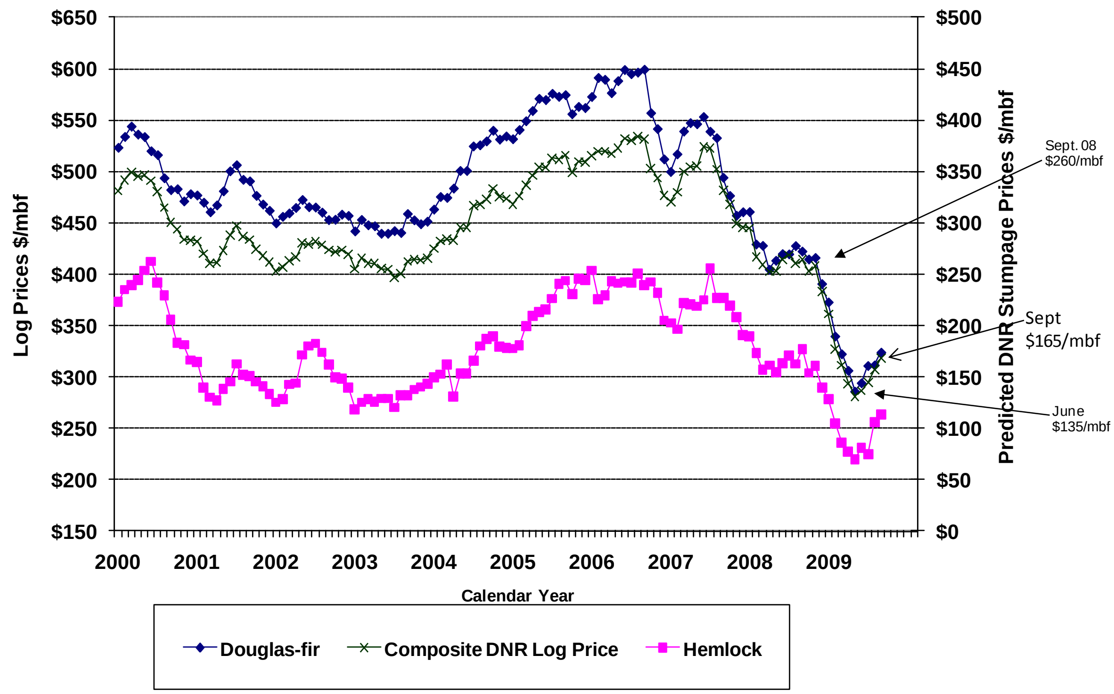
Figure 3.5: Timber Volume - Sales and Removal



	04	05	06	07	08	09	10	11	12	13	14	15
Inventory at end of Period	696	599	475	552	681	721	895	887	804	761	739	698
Months worth of Inventory	12.7	10.6	10.2	13.7	16.2	16.1	17.4	15.0	13.2	13.1	13.2	12.6
Sales - Previous Forecast					660	546	744	657	667	667		
Sales - Current Forecast	548	599	528	565	660	545	744	657	667	667	667	616
Removals Prev. Forecast					504	510	540	690	765	730		
Removals - Current Forcast	616	696	658	466	504	506	570	665	750	710	690	657
Change						-4	29	-25	-15	-20		
Percent Change						-1%	5%	-4%	-2%	-3%		

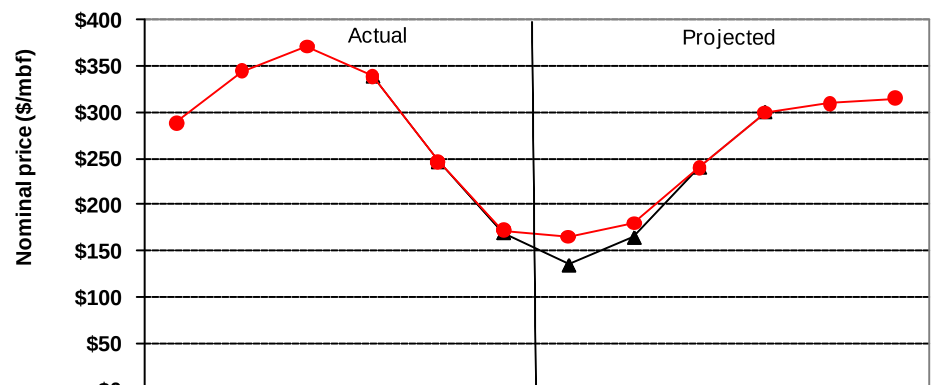
Timber Sales Prices. When the June Forecast was published log prices were at $285/mbf and the corresponding projected DNR stumpage price had fallen to just $135/mbf. It appears that was the bottom of the market. Log prices have increased to $315/mbf, and the corresponding stumpage price has increased to $165/mbf. (See **Figure 3.6** for details on DNR composite log prices and projected DNR stumpage prices.) Now, we expect prices to average $165/mbf during all of FY 2010, and increase $15/mbf or 9 percent to $180 in FY 2011.

Chart 3.6: DNR Composite Log Prices And Predicted Stumpage Prices



We expect market conditions to improve significantly in FY 2012 and FY 2013 because of a bounce-back in the U.S. housing market, and continued growing world demand for lumber. As a result, DNR stumpage prices are forecasted to increase sharply by over $80/mbf (or 33 percent in FY 2012) over those in FY 2011 (see **Figure 3.7** for details).

Figure 3.7: Timber Sales Prices - Comparison of Previous Forecast with Current Forecast

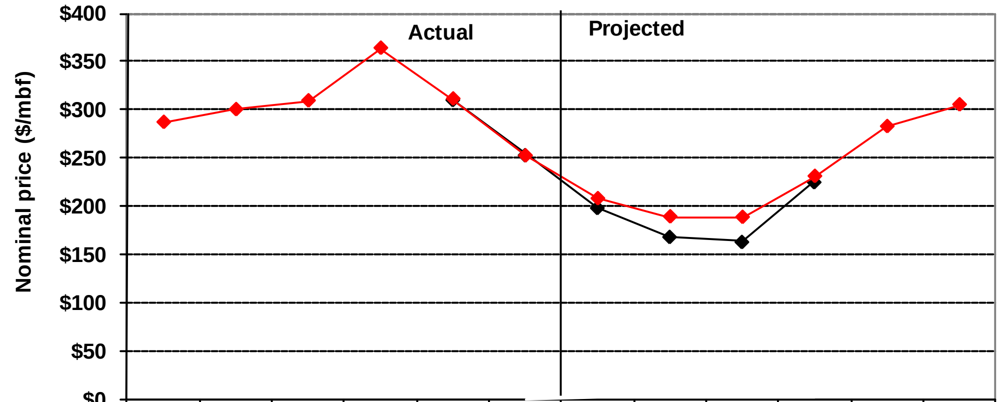


	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast				$340	$247	$170	$135	$165	$241	$301		
Current Forecast	$289	$345	$371	$340	$247	$173	$165	$180	$240	$300	$310	$315
Change						$2	$30	$15	-$1	-$1		
Percent Change						1.4%	22.3%	9.1%	-0.4%	-0.3%		

Fiscal year ending June 30

Timber Removal Prices. Removal prices are a function of sales prices and removal timing. They can be thought of as a moving average of previous sales prices weighted by the volume of sales removed from each previous sales period. The removal volumes used to calculate the weights are shown in **Figure 3.2**. This results in a smoothing out and a lag of removal prices compared to sales prices. For example, sales prices are forecasted to trough or bottom out at $165/mbf in FY 2010. Removal prices aren't forecasted to trough until two years later in FY 2012 at $188/mbf, $23/mbf higher than the bottom for sales prices.

Figure 3.8: Timber Removal Prices - Comparison of Previous Forecast with Current Forecast



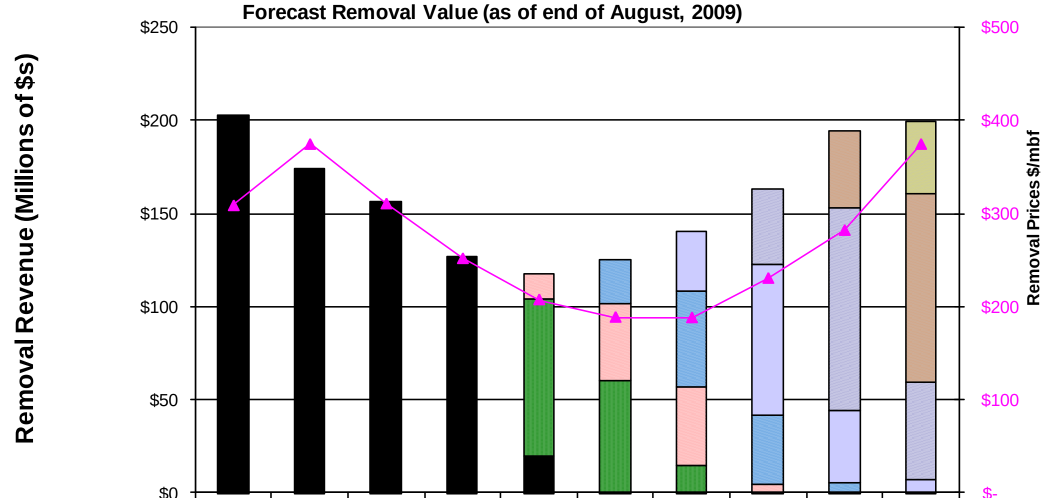
	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast					$311	$253	$199	$169	$163	$225		
Current Forecast	$286	$300	$309	$363	$311	$252	$207	$188	$188	$230	$282	$305
Change						-$2	$8	$20	$24	$5		
Percent Change						-1%	4%	12%	15%	2%		

Fiscal year ending June 30

Actual removal prices in FY 2009 were $2/mbf—just 1 percent less than was forecasted in June. Forecast removal prices in FY 2010 are up by about 4 percent from that forecast in June due to the high sales prices in FY 2010. Forecast removal prices are up $20/mbf, or 12 percent, in FY 2011. Forecast average removal prices in FY 2012 are up $24/mbf, or 15 percent, reflecting the increase in Forecast sales prices in FY 2010 and FY 2011 (see **Figure 3.8** for details).

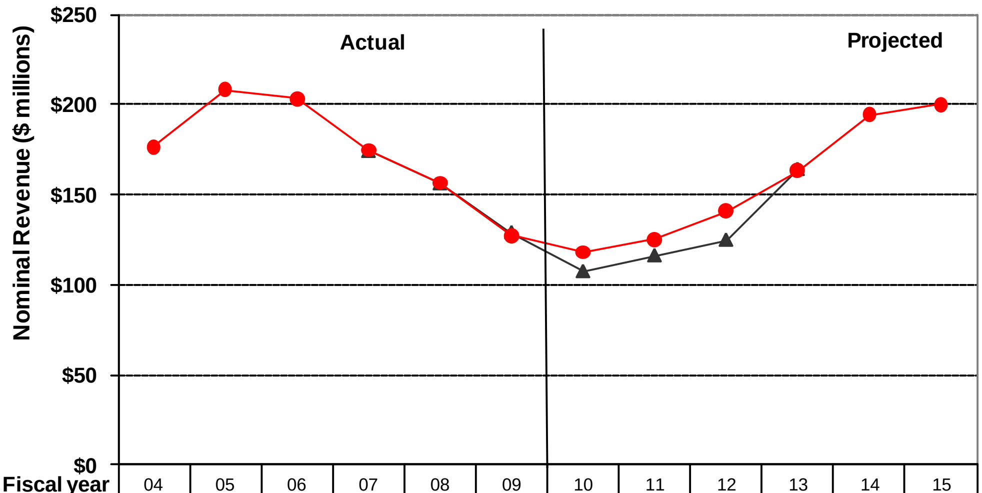
Timber Removal Revenues. Figure 3.9 shows removal revenues by when the timber was sold ("under contract" is already sold) and the average removal price for that fiscal year. Over 68 percent of the forecast harvest value this biennium (FY 2010 and FY 2011) will come from the volume harvested before or under contract at the end of August; 22 percent is forecasted to come from sales sold in June and FY 2010; the remaining 10 percent comes from timber sales sold in FY 2011.

Figure 3.9: September 2009 Revenue Forecast
Forecast Removal Value (as of end of August, 2009)



Fiscal Year	06	07	08	09	10	11	12	13	14	15
Sales in FY 15										$39
Sales in FY 14									$41	$102
Sales in FY 13								$40	$108	$52
Sales in FY 12							$32	$81	$39	$8
Sales in FY 11						$24	$52	$37	$6	$-
Sales in remainder of FY 10					$14	$41	$42	$5	$-	$-
Sales Under Contract					$84	$60	$15	$-	$-	$-
Actual Removals to date	$203	$175	$157	$127	$20					
Total	$203	$175	$157	$127	$118	$125	$141	$163	$194	$200
$/mbf	$309	$375	$311	$252	$207	$188	$188	$230	$282	$375

Figure 3.10: Timber Removal Revenues - Comparison of Previous Forecast with Current Forecast, 2000-2013



Fiscal year	04	05	06	07	08	09	10	11	12	13	14	15
Percent Change				$175	$157	$129	$107	$116	$125	$165		
Current Forecast	$176	$208	$203	$175	$157	$127	$118	$125	$141	$163	$194	$200
Change						(1.9)	10.6	8.9	15.9	(1.2)		
Percent Change						-2%	10%	8%	13%	-1%		

Actual timber revenues were $1.9 million (2 percent) less in FY 2009 than was forecast in June. Forecast revenues are up by $10.6 million (10 percent) and $8.9 million (8 percent) in FY 2011 and FY 2012. In the 2011-13 biennium, revenues are up by $14.7 million, or 5 percent. See **Figure 3.10** for detail.

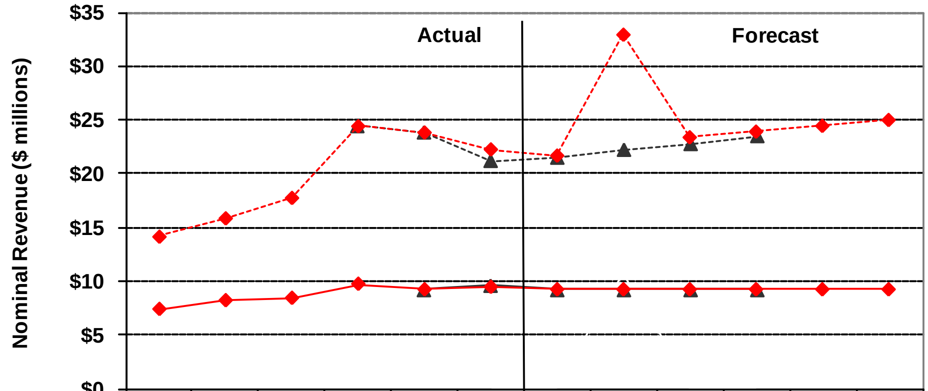
Upland lease revenues

Upland lease revenues are generated primarily from leases and the sale of valuable materials, other than timber. In this Forecast, upland lease revenues are divided into two categories:

1) **Commercial**—Commercial real estate leases.
2) **Agricultural and Other**—Agricultural, special use, mineral and hydrocarbon, rights-of-way, communication sites, special forest products leases, and sale of other valuable materials.

Commercial. Actual commercial lease revenue of FY 2009, was $200,000 less than forecasted in June. The current economic slowdown has increased the probability that we could see some of our commercial building lessees go out of business and default. For now, we are leaving our forecast for future years unchanged, but we believe the risk of downside adjustment to our current forecast is probably greater than the upside risk.

Figure 3.11: Upland Lease Revenue - Comparison of Previous Forecast with Current Forecast, 2000-2013



Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Ag. & Other Prev. For.				24.4	23.8	21.2	21.5	22.2	22.8	23.5		
Ag & Other - Current	14.2	15.9	17.8	24.4	23.8	22.3	21.7	32.9	23.4	23.9	24.5	25.0
change						1.1	0.2	10.6	0.6	0.4		
% change						5.1%	0.9%	47.9%	2.8%	1.8%		
Commercial Prev. For.					9.2	9.6	9.2	9.2	9.2	9.2		
Commercial - Current	7.4	8.2	8.4	9.7	9.2	9.4	9.2	9.2	9.2	9.2	9.2	9.2
Change						-0.2	0.0	0.0	0.0	0.0		
% Change						-1.8%	0.0%	0.0%	0.0%	0.0%		

Agricultural and Other. Washington's agricultural sector has not escaped the impact of the recession. On the upside prices for key farm expenditures (fuel and fertilizer) are down. Unfortunately for most agricultural commodities this is outweighed by lower prices because of reduced demand at the time of record or near record output. Key crops for the department include wheat, which saw favorable growing conditions this year, simultaneously with strong yields globally. The international slowdown has impacted the traditional buyers of Washington wheat. Export prices have fallen from as high as $15 a bushel in early CY 2008 to about $5 a bushel. Slumping demand has left silos in the region bulging with almost two years supply! This hangover in supply could have a negative effect on prices for years to come.

Washington's high valued tree fruit crops have also suffered. Apples are far and away Washington's number one crop. Apple producers are facing a second consecutive bumper crop. Heavy supplies sent prices plummeting to 19¢ per pound, from 53¢ last year. Favorable growing conditions have also produced an over production of cherries. The combination of over production and lack of Asian demand because of the recession devastated prices. Average farm gate prices have fallen from a 2008 record of $2.53/lb to just $1.42/lb. Prices were so low farmers left a lot of high-quality cherries on the tree to rot.

Before the recession, dairy and beef producers were expanding in response to increased export demand, but because of the recession, demand for dairy and beef products are both down, just as new supplies are coming on line. As a result, milk prices have fallen from $19/hundred pounds (Cwt) in 2007 to just $12/Cwt today. Beef is down from $1.45/lb. to $1.10 today.

You gotta love those potatoes! People have to eat. If they are drinking less milk, and eating less cheese and meat, well, they need to fill up on something. In many cases it is potatoes. Fresh potato sales are up by 9.5 percent from last year, and frozen potatoes are up 4.8 percent nationwide. Farm gate potato prices are up to almost $10/Cwt, from $8/Cwt before the recession.

Despite current lower prices for most agricultural commodities, we anticipate good returns for lease resources in the coming year because of increased world population, and better incomes and diets worldwide. Add to that developing bio-fuel, wind-power, and other renewable energy markets.

As mentioned earlier in this report, Asian demand is already coming back and Washington agricultural products will benefit from a weaker dollar, which reduces offshore prices and generally raises the prices of competing imports. So we do expect prices to come back quickly.

Looking three or four years out, standards of living should be rising in Washington agriculture's key markets of China, India, and the rest of developing Asia. As many as 2.3 million people will be brought from subsistence living into the market economy. One of the things they will want is improvements in their diets, and that will mean more demand for Washington exports.

Lease revenues from DNR-managed lands for all of FY 2009 were $1.1 million more than we forecast in June, primarily because of higher than anticipated agricultural revenues. We have made two major changes to our forecast lease and other revenues. The first is a onetime sale of communication site equipment in FY 2011 of $10.0 million.

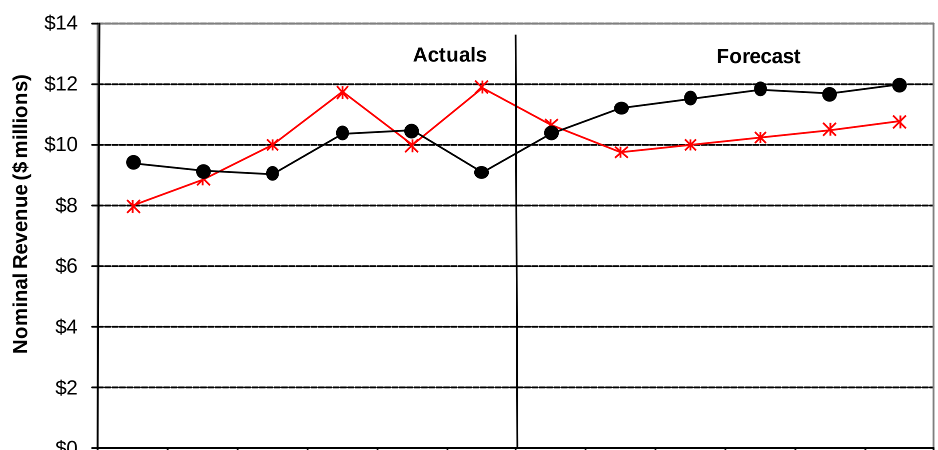
The second is the addition of ongoing revenue of $0.6 million beginning in FY 2011 from the acquisition of two agricultural properties. In addition we have increased forecast revenues by $0.2 million in FY 2009 based on expected higher agricultural revenues because of higher than previously forecast wheat prices. (See **Figure 3.11** for details.) At this point we judge the upside and downside risks in agricultural and other revenues to be about balanced.

Aquatic revenues

Actual aquatic revenues in FY 2009 were $20.9 million, $0.3 million or4 1.3 percent less than we forecast in June. (See **Figure 3.12** for details).

Geoduck Revenues. Since March, the department has received higher-than-forecasted prices for geoducks. At the last geoduck auction the department received an average price of $9.15/lb. This was the highest price the department has ever received (see **Figure 3.12** for details). Primarily because of higher-than-forecast geoduck prices so far this year, we are increasing our projected geoduck revenues in FY 2010 by $1.1 million. Despite continued higher than forecast geoduck prices since March, we are holding our forecast of geoduck revenues in FY 2011, because geoduck revenues are highly volatile.

Figure 3.12: Aquatic Revenues - Geoduck, and Lease & Other FY 2000-2013



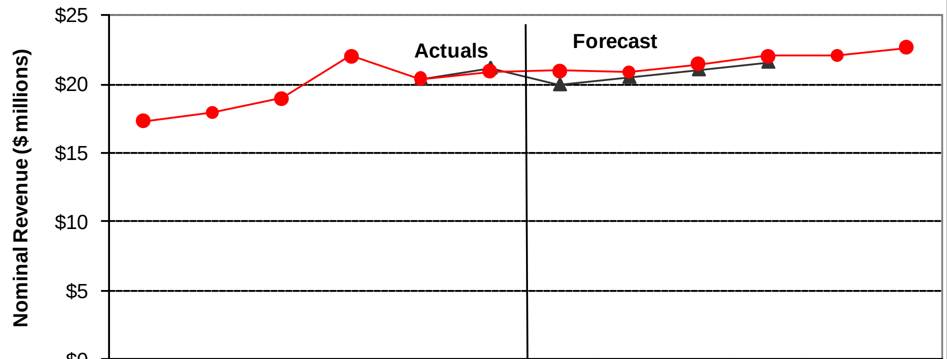
Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Geoduck Revenues	$7.9	$8.8	$10.0	$11.7	$9.9	$11.9	$10.6	$9.7	$10.0	$10.2	$10.5	$10.7
Lease and Other Revenues	$9.4	$9.1	$9.0	$10.3	$10.4	$9.1	$10.4	$11.2	$11.5	$11.8	$11.6	$12.0

Lease and Other Revenues. After rising above trend in FY 2007 and FY 2008, at around $10.4 million, lease and other aquatic revenues were disappointing in FY 2009. They fell to $9.1 million, a reduction of $1.3 million or 12.5 percent from FY 2008. Aquatic lease revenues are surprisingly volatile on a year-to-year basis, so we are reducing our Forecast revenues by just $100,000 per year.

Aquatics-dependent leases are adjusted annually by the Producer Price Index (PPI). The adjustment factor for FY 2010 was up by 9.8 percent so we anticipate that these revenues could be up by $500,000 in FY 2010. The PPI is already moving down, and some of these gains could be erased in subsequent years. We are now forecasting a $1.3 million, or 14 percent, increase in revenues going from FY 2009 to FY 2010. The increase would put revenues back on trend, but we are naturally concerned. We judge the downside risks greater than the upside risks to our forecast of aquatic lease revenue.

On August 31, 2009, the department entered into right-of-entry agreement with Taylor Shellfish on DNR second class tidelands to harvest geoducks in the area. Taylor will make a payment of $0.5 million within the next 12 months and two additional payments of the equal amounts would then be made 12 months and 24 months after the first payment. The first payment is due no later than early FY 2011, so we have increased the forecast revenue in FY 2011, 2012, and 2013. Revenues for second class tidelands are divided equally between RMCA-Aquatics and the Aquatic Lands Enhancement Account (ALEA).

Figure 3.13: Aquatic Revenues - Comparison of Previous Forecast with Current Forecast, 2000-2013



	04	05	06	07	08	09	10	11	12	13	14	15
Previous Forecast					$20.4	$21.2	$20.0	$20.5	$21.1	$21.6		
Current Forecast	$17.3	$17.9	$19.0	$22.1	$20.4	$20.9	$21.0	$20.9	$21.5	$22.0	$22.1	$22.7
Change						(0.3)	1.0	0.4	0.4	0.4		
Percent Change						-1.3%	5.0%	1.8%	1.9%	1.9%		

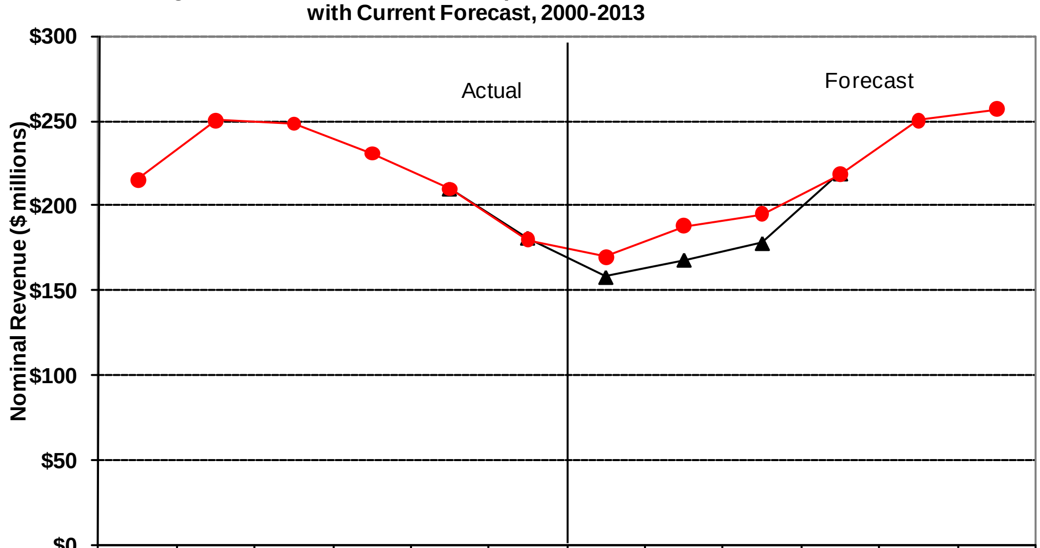
Fiscal year ending June 30

The net result is to increase forecast revenues from aquatic lands by 1 million in FY 2010 and by $0.4 million in each of the next three years (see **Figure 3.13** for detail).

Total revenues from all sources

Actual revenues for FY 2009 were down just $1.3 million, or 1 percent, from the June Forecast. For the 2009-11 biennium, total forecast revenues are up by $31.8 million, or 9.7 percent. This increase includes $19.5 million from timber sales (higher sales and removal prices) and $12.3 million in leases and other revenues, including the sale of $10 million in communication site equipment. Revenues during the 2011-13 biennium are up by $16.6 million, or 4.2 percent. (See **Figure 3.14** for detail.)

Figure 3.14: Total Revenues - Comparison of Previous Forecast with Current Forecast, 2000-2013



Fiscal Year	04	05	06	07	08	09	10	11	12	13	14	15
Previous forecast					$210.0	$181.2	$158.1	$168.2	$178.0	$218.9		
Current Forecast	$215.4	$250.5	$248.4	$230.9	$210.0	$179.8	$169.9	$188.2	$194.9	$218.6	$250.3	$257.1
Change						$(1.3)	$11.8	$20.0	$16.9	$(0.3)		
% Change						-1%	7%	12%	10%	0%		

Some caveats

DNR strives to produce the most accurate and objective forecast possible, based on the department's current policy directions and available information. Actual revenues will depend on future policy decisions made by the Legislature and the department, as well as market conditions beyond our control. Listed below are issues that could potentially have a significant impact on future revenues from DNR-managed lands:

- **Housing Markets.** It has been almost four years since the housing downturn began. We believe the bottom was reached in the first half of this year. But because that bottom is so low, a meaningful recovery of the U.S. housing market will not occur until CY 2011 and, therefore, timber prices will not rise significantly until FY 2012. Our forecast of housing starts may prove optimistic. (See **Page 17** of this report for detail.) It is possible that the housing recovery could be pushed back even further by rising interest rates or a slower-than-expected economic recovery. This would likely result in lower timber sales prices than we currently forecast.

- **Timber Sales Volume.** This Forecast is based on the assumption that the department will sell 744 mmbf of regular sales in FY 2010, an increase of 55 percent over the FY 2009 level. While sales went well during the first three months of the year, selling 744 mmbf remains an ambitious target. If markets do not continue to recover, the department may not meet this target.

- **Defaults and Extensions.** This Forecast does not include any adjustment for defaults, liquidated damages, or extensions. The department currently has over $30 million worth of timber contracts valued over $350/mbf that will expire by the end of this calendar year. Extensions will only impact the timing of revenues (assuming that extended sales are eventually harvested), but liquidated damages and defaults could have a major negative impact on our revenues, which is not included in this Forecast.

These and other future circumstances could greatly impact future revenues. As events and market conditions develop, DNR will incorporate new information in future Forecast updates.

Distribution of revenues

The distribution of timber revenues by grant are based on:

- The value of timber in the inventory (sales sold but not yet harvested) as of May 31, 2009;
- Planned sales for the remainder of FY 2009, FY 2010 and FY 2011 based on planned sales volumes;
- The distribution of the sustainable harvest for FY 2012 and FY 2013.

Timber sales are expected to be harvested on average between 12.5 and 17.5 months after they are sold. (See **Figure 3.5** for details.) Distributions of lease revenues are assumed to be proportional to historic distributions unless otherwise specified.

Since a single timber sale can be worth over $3 million, dropping, adding, or delaying even one sale can represent a significant shift in revenues to a specific trust fund.

Management Fee Deduction. The 2009-11 budget passed by the Legislature extended the 30 percent RMCA deduction through the end of the 2009-11 biennium. The RMCA deduction is assumed to return to 25 percent in FY 2012. The forecast RMCA revenues at the 30 percent deduction for FY 2012 and beyond show at the top of **Table 3.2**.

University Bond Retirement and University Permanent Funds. According to the Office of Financial Management's interpretation of generally accepted accounting principles, debt service funds (funds used to pay off debts), such as the University Bond Retirement Fund and the Washington State University Bond Retirement Fund, cannot receive revenue directly. Instead, revenue to these two funds is recorded to the respective permanent funds, and then an operating transfer is made to the appropriate debt service fund.

In FY 2007, $659,676 of revenue to the University Bond Retirement Fund was recorded to the University Permanent Fund, but was not transferred to the University Bond Retirement Fund. As a result, the University Bond Retirement Fund was understated by $0.7 million, while the University Permanent Fund was overstated by the same amount.

In FY 2008 the department began transferring revenues that otherwise would have gone to the University Permanent Fund and then to the University Bond fund to reverse the effect on revenues to the two funds. Through FY 2009 $509,000 has been transferred to the University Bond Retirement Fund from the University Permanent Fund. The remaining $150,000 will be transferred in FY 2010. The resulting revenues to the two funds are shown in **Table 3.2**.

Revenue forecast tables

Tables 3.1 and 3.2 on the following pages provide forecast details. **Table 3.1** focuses on the source of revenues, and **Table 3.2** focuses on the distribution of revenues. Both tables include historical and projected figures.

Table 3.1 September 2009 Forecast by Source (In millions of dollars)

Change from June 09 Forecast

Timber Sales	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	660	545	744	657	667	667	667	616
Change	-	(1)	-	-	-	-	-	-
% Change	0%	0%	0%	0%	0%	0%	0%	0%
Price ($/mbf)	$247	$173	$165	$180	$240	$300	$310	$315
Change	$0	$2	$30	$15	-$1	-$1	$0	$0
% Change	0%	1%	22%	9%	0%	0%	0%	0%
Value of Timber Sales (In millions of dollars)	**$ 163.0**	**$ 94.0**	**$ 122.8**	**$ 118.3**	**$ 160.1**	**$ 200.1**	**$ 206.5**	**$ 194.3**
Change	$ -	$ 1.1	$ 22.4	$ 9.9	$ (0.7)	$ (0.7)	$ -	$ -
% Change	0%	1%	22%	9%	0%	0%	0%	0%

Timber Removals	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Volume (mmbf)	504	506	570	665	750	710	690	657
Change	-	(4)	29	(25)	(15)	(20)	-	-
% Change	0%	-1%	5%	-4%	-2%	-3%	0%	0%
Price ($/mbf)	$311	$252	$207	$188	$188	$230	$282	$305
Change	$0	-$2	$8	$20	$24	$5	$0	$0
% Change	0%	-1%	4%	12%	15%	2%	0%	0%
Timber Revenue (In millions of dollars)	**$ 156.6**	**$ 127.2**	**$ 118.0**	**$ 125.2**	**$ 140.9**	**$ 163.4**	**$ 194.5**	**$ 200.2**
Change	$ -	$ (1.9)	$ 10.6	$ 8.9	$ 15.9	$ (1.2)	$ -	$ -
% Change	0%	-2%	10%	8%	13%	-1%	0%	0%

Lease Revenue	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Agricultural and Mineral	$ 23.8	$ 22.3	$ 21.7	$ 32.9	$ 23.4	$ 23.9	$ 24.5	$ 25.0
Change	$ -	$ 1.1	$ 0.2	$ 10.6	$ 0.6	$ 0.4	$ -	$ -
% Change	0%	5%	1%	48%	3%	2%	0%	0%
Commercial	$ 9.2	$ 9.4	$ 9.2	$ 9.2	$ 9.2	$ 9.2	$ 9.2	$ 9.2
Change	$ -	$ (0.2)	$ -	$ -	$ -	$ -	$ -	$ -
% Change	0%	-2%	0%	0%	0%	0%	0%	0%
Aquatic Revenue	$ 20.4	$ 20.9	$ 21.0	$ 20.9	$ 21.5	$ 22.0	$ 22.1	$ 22.7
Change	$ -	$ (0.3)	$ 1.0	$ 0.4	$ 0.4	$ 0.4	$ -	$ -
% Change	0%	-1%	5%	2%	2%	2%	0%	0%
Total Lease Revenue	**$ 53.4**	**$ 52.6**	**$ 51.9**	**$ 63.0**	**$ 54.1**	**$ 55.2**	**$ 55.8**	**$ 56.9**
Change	$ -	$ 0.6	$ 1.2	$ 11.0	$ 1.0	$ 0.8	$ -	$ -
% Change	0%	1%	2%	21%	2%	2%	0%	0%

Total All Sources	**$ 210.0**	**$ 179.8**	**$ 169.9**	**$ 188.2**	**$ 194.9**	**$ 218.6**	**$ 250.3**	**$ 257.1**
Change	$ -	$ (1.3)	$ 11.8	$ 20.0	$ 16.9	$ (0.3)	$ -	$ -
% Change	0%	-1%	7%	12%	10%	0%	0%	0%

Note Trust land transfer is not included in distribution revenues.
This table excludes interest and Land Bank transactions, fire assessments, permits, and fees.
Totals may not add due to rounding.

Table 3.2: Draft September 2009 Forecast by Fund (In millions of dollars)

		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Change from June 09 Forecast									
	30% RMCA thru FY 11				RMCA AT 30%===>	$ 28.9	$ 34.9	$ 40.2	$ 41.0
Management Funds		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
041	RMCA - Upland	$ 32.0	$ 26.5	$ 24.8	$ 27.4	$ 24.1	$ 29.1	$ 33.5	$ 34.1
	Change	$ -	$ (0.0)	$ 0.4	$ 2.7	$ 2.7	$ (0.2)	$ -	$ -
	% Change	0%	0%	2%	11%	13%	-1%	0%	0%
041	RMCA - Aquatic	$ 8.6	$ 8.9	$ 8.9	$ 8.8	$ 9.1	$ 9.3	$ 9.3	$ 9.5
	Change	$ -	$ (0.3)	$ 0.6	$ 0.2	$ 0.2	$ 0.2	$ -	$ -
	% Change	0%	-3%	8%	2%	2%	2%	0%	0%
014	FDA	$ 18.6	$ 17.3	$ 16.5	$ 20.0	$ 19.7	$ 20.5	$ 24.1	$ 25.4
	Change	$ -	$ (0.1)	$ 2.7	$ 3.8	$ 1.9	$ (0.0)	$ -	$ -
	% Change	0%	-1%	19%	23%	10%	0%	0%	0%
Total Management Funds		**$ 59.2**	**$ 52.7**	**$ 50.3**	**$ 56.2**	**$ 52.8**	**$ 58.9**	**$ 66.8**	**$ 69.0**
	Change	$ -	$ (0.4)	$ 3.7	$ 6.7	$ 4.8	$ 0.0	$ -	$ -
	% Change	0%	-1%	8%	14%	10%	0%	0%	0%
Current Funds		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
113	Common School Construction	$ 56.6	$ 41.5	$ 39.2	$ 43.9	$ 49.1	$ 60.5	$ 69.0	$ 71.1
	Change	$ -	$ 0.5	$ 1.2	$ 4.2	$ 3.6	$ (0.4)	$ -	$ -
	% Change	0%	1%	3%	11%	8%	-1%	0%	0%
999	Forest Board Counties	$ 52.5	$ 48.6	$ 44.1	$ 49.4	$ 51.4	$ 52.7	$ 62.0	$ 64.1
	Change	$ -	$ (0.4)	$ 6.6	$ 6.0	$ 3.1	$ (0.0)	$ -	$ -
	% Change	0%	-1%	18%	14%	6%	0%	0%	0%
001	General Fund	$ 3.0	$ 1.4	$ 1.8	$ 3.1	$ 2.8	$ 2.9	$ 3.4	$ 3.5
	Change	$ -	$ 0.2	$ 0.1	$ 0.9	$ 0.8	$ (0.0)	$ -	$ -
	% Change	0%	13%	6%	44%	41%	0%	0%	0%
348	University Bond Retirement	$ 2.3	$ 3.4	$ 1.5	$ 0.9	$ 0.9	$ 1.7	$ 2.0	$ 2.2
	Change	$ -	$ 0.1	$ (0.5)	$ (0.2)	$ 0.1	$ (0.0)	$ -	$ -
	% Change	0%	2%	-24%	-21%	20%	-3%	0%	0%
347	WSU Bond Retirement	$ 1.2	$ 1.6	$ 1.1	$ 1.3	$ 1.3	$ 1.3	$ 1.3	$ 1.4
	Change	$ -	$ 0.5	$ 0.0	$ 0.1	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	42%	1%	8%	3%	2%	0%	0%
042	CEP&RI	$ 3.8	$ 3.8	$ 5.4	$ 5.8	$ 6.3	$ 6.6	$ 7.6	$ 7.7
	Change	$ -	$ (0.9)	$ 0.1	$ 1.3	$ 2.2	$ 0.0	$ -	$ -
	% Change	0%	-20%	2%	29%	55%	0%	0%	0%
036	Capitol Building Construction	$ 5.2	$ 5.7	$ 6.0	$ 6.5	$ 7.3	$ 7.5	$ 8.9	$ 8.7
	Change	$ -	$ (0.7)	$ 0.1	$ 0.7	$ 0.8	$ (0.0)	$ -	$ -
	% Change	0%	-11%	1%	12%	13%	0%	0%	0%
061/3	Normal (CWU, EWU, WWU, TESC) $	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1	$ 0.1
	Change	$ -	$ (0.0)	$ 0.0	$ 0.0	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	-10%	1%	3%	3%	2%	0%	0%
Other Funds		$ 0.2	$ 0.4	$ 0.1	$ 0.1	$ 0.2	$ 0.4	$ 0.5	$ 0.5
	Change	$ -	$ 0.1	$ (0.1)	$ (0.1)	$ (0.0)	$ (0.0)	$ -	$ -
	% Change	0%	30%	-61%	-51%	0%	-3%	0%	0%
Total Current Funds		**$ 125.0**	**$ 106.5**	**$ 99.2**	**$ 111.1**	**$ 119.3**	**$ 133.7**	**$ 154.9**	**$ 159.3**
	Change	$ -	$ (0.8)	$ 7.6	$ 12.9	$ 10.8	$ (0.4)	$ -	$ -
	% Change	0%	-1%	8%	13%	10%	0%	0%	0%

(Continued)

Table 3.2(Continued): September 2009 Forecast by Fund (In millions of dollars)

Change from June 09 Forecast
30% RMCA thru FY 11

Aquatic lands Enhancement Account		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
02R		**$ 11.7**	**$ 12.0**	**$ 12.1**	**$ 12.1**	**$ 12.4**	**$ 12.7**	**$ 12.8**	**$ 13.2**
	Change	$ -	$ (0.0)	$ 0.4	$ 0.2	$ 0.2	$ 0.2	$ -	$ -
	% Change	0%	0%	3%	1%	1%	2%	0%	0%

Permanent Funds		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
601	Agricultural College Permanent	$ 4.3	$ 2.9	$ 3.1	$ 2.7	$ 2.7	$ 3.2	$ 3.9	$ 4.0
	Change	$ -	$ (0.3)	$ 0.2	$ (0.3)	$ (0.2)	$ (0.1)	$ -	$ -
	% Change	0%	-8%	6%	-10%	-6%	-2%	0%	0%
604	Normal School Permanent	$ 3.1	$ 2.5	$ 2.0	$ 1.8	$ 2.1	$ 2.7	$ 3.2	$ 3.1
	Change	$ -	$ 0.2	$ (0.0)	$ (0.1)	$ 0.3	$ (0.0)	$ -	$ -
	% Change	0%	8%	-1%	-6%	18%	-1%	0%	0%
605	Common School Permanent	$ 0.2	$ 0.3	$ 0.4	$ 0.6	$ 0.4	$ 0.5	$ 0.5	$ 0.5
	Change	$ -	$ (0.1)	$ 0.0	$ 0.2	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	-21%	1%	48%	3%	2%	0%	0%
606	Scientific Permanent	$ 6.0	$ 2.8	$ 2.7	$ 3.4	$ 4.7	$ 6.5	$ 7.8	$ 7.7
	Change	$ -	$ 0.1	$ 0.1	$ 0.4	$ 1.0	$ (0.1)	$ -	$ -
	% Change	0%	3%	3%	12%	27%	-1%	0%	0%
607	University Permanent	$ 0.5	$ 0.1	$ 0.0	$ 0.3	$ 0.4	$ 0.3	$ 0.4	$ 0.3
	Change	$ -	$ (0.1)	$ (0.1)	$ (0.0)	$ 0.0	$ 0.0	$ -	$ -
	% Change	0%	-37%	-74%	-7%	7%	2%	0%	0%
Total Permanent Funds		**$ 14.1**	**$ 8.6**	**$ 8.3**	**$ 8.8**	**$ 10.4**	**$ 13.2**	**$ 15.7**	**$ 15.6**
	Change	$ -	$ (0.1)	$ 0.1	$ 0.1	$ 1.2	$ (0.1)	$ -	$ -
	% Change	0%	-1%	1%	2%	13%	-1%	0%	0%

Total All Funds		FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Total		**$ 210.0**	**$ 179.8**	**$ 169.9**	**$ 188.2**	**$ 194.9**	**$ 218.6**	**$ 250.3**	**$ 257.1**
	Change	$ -	$ (1.3)	$ 11.8	$ 20.0	$ 16.9	$ (0.3)	$ -	$ -
	% Change	0%	-1%	7%	12%	10%	0%	0%	0%

Note: Trust land transfer is not included in distribution revenues.
This table excludes interest and Land Bank transactions, fire assessments, permits, and fees.
Totals may not add due to rounding.