
New Business Development Plan

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For IC Meca

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Title of Report

Table of Contents

Table of Contents	
Section 1 – Executive Summary	1
1. Executive Summary	1
Section 2 – Purpose	2
2. Purpose	3
Section 3 – Situation Analysis	4
3. Situation Analysis	5
3.1 Problem Identification	5
3.1.1 Water Shortage	5
3.1.2 Water Leaks	5
3.1.3 Sprinkler Leaks	6
3.2 Environmental trends	7
3.2.1 Political and regulatory environment	7
3.2.2 Social Factors	8
3.3 Company	8
3.3.1 Company History	8
3.3.2 Current Situation	9
3.3.3 Product portfolio	9
3.4 Competitor analysis	10
3.5 Customer analysis	12
3.6 SWOT Analysis	13
3.6.1 Strengths	13
3.6.2 Weaknesses	14
3.6.3 Opportunities	14
3.6.4 Threats	14
Section 4 – Product Details	16
4. Product Details – Sprinkler Leak Detector	17
4.1 General Descriptions	17
4.2 Key Features	17
Section 5 – Segmentation, Target Markets & Positioning	20
5. Segmentation, Target Markets & Positioning	21
5.1 Segmentation	21
5.2 Target Markets	21
5.3 Positioning	24
Section 6 – Sales Forecasting	25
6. Forecasting	26
6.1 Nation wide Sales Forecast	26
6.2 Regional Forecast	28
6.3 Overall Health Indicators	29
Section 7 – Key Success Factors	31
7. Key Success Factors	32
Section 8 – Strategic Marketing Alternatives	33
8. Strategic Marketing Alternatives	34
8.1 Strategy 1 – Intermediary Sales Network (via Trade Professionals)	34
8.2 Strategy 2 – Mass Retail Distribution	35
8.3 Strategy 3 – Direct Response Marketing	35

Title of Report

Table of Contents

8.4 Strategy 4 – Limited Retail Distribution.....	36
Section 9 – Recommended Strategy.....	38
9. Recommended Strategy.....	39
9.1 Recommendation.....	39
9.2 Objectives.....	39
9.3 Marketing Mix.....	40
9.3.1 Product.....	40
9.3.2 Price.....	40
9.3.3 Distribution.....	41
9.3.4 Promotion.....	41
Section 10 – Implementation & Action Plan.....	43
10. Implementation & Action Plan.....	44
10.1 Implementation Timeline.....	44
10.2 Product Lifecycle.....	45
10.3 Tradeshows.....	46
Appendices.....	50
Appendices.....	51
APPENDIX 1 – Name Formation.....	51
APPENDIX 2 – Situation Graphs.....	53
APPENDIX 3 – Benefit Analysis.....	56
APPENDIX 4 – Target Region Analysis.....	58
APPENDIX 5 - Packaging.....	66

New Business Development Plan

Section 1 – Executive Summary

Section 1 – Executive Summary

1. Executive Summary

Water Scarcity is a huge problem and it is a problem that is mounting as the time goes by. Originally it was an issue that affected only developing countries but now a developed country, the United States, suffering from its effects.

LeakBuster™ is here to help contribute to the conservation of water and minimize this problem. It is an innovative product designed by Mr. Daniel Chang. It helps conserve water by preventing leaks in the sprinkler system.

The government sector, commercial sector and residential sector could use this product. However the marketing strategy we have designed is aimed at homeowners in the residential sector because this is the most profitable way to go.

Initially the product will be launched in the year 2008 using the strategy of direct sales via infomercials and E commerce, this strategy will enable the launch to be scalable and produce immediate results. Once the product has penetrated the market and significant consumer awareness has been created, by mid 2009, the long-term strategy of Mass Retail Distribution. Under this strategy the product will be sold via mass retailers like Home Depot, Wal-Mart and Lowes. This will enhance the distribution of the product and enable a wide reach.

In order to implement these strategies and ensure a successful launch, Five Critical Success Factors have been identified. Capital Investment, Market Share, Need Awareness, Distribution and Continuous Innovation. Capital investment is the driving force behind the remaining four-success factors and once capital investment is obtained efforts can be made to quickly capture market share. In order to capture market share, consumers needs to recognize their need for this product and this can be done via advertising. Once the need is recognized mass distribution will be used to fulfill this need. DC instrument needs to continuously innovate the product in order keep out new entrants and Maintain market share and steady growth.

2. Purpose

The purpose of this report is to analyze the external and internal factors concerning the introduction of a sprinkler leak detection device into the market place. Subsequently, the report will identify the key success factors for the introduction of a sprinkler leak detection device. Finally it will provide strategic marketing alternatives and recommendations as well as an implementation plan.

3. Situation Analysis

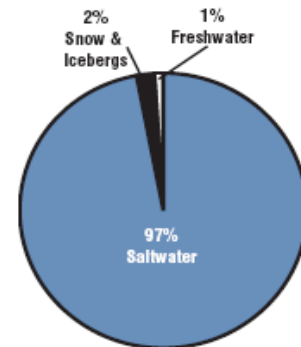
In order to gauge whether our product is viable we must first survey the current situation. We need to know: whether a problem actually exists that our product will contribute to solving; how environmental factors such as political and social influence will affect success; what qualities does IC Meca have working for and against them; what competition exists and what are their pros and cons; and what is the current attitude of consumers, relevant to our product.

3.1 Problem Identification

Fig.1 The World's Water

3.1.1 Water Shortage

To the casual observer, water may seem to be the most abundant resource available on earth, The reality is that 97% of all water is salt water, 2% is held in snow and icebergs and only 1% is freshwater. (See Fig.1) (The only portion currently useable for human consumption)



- The United Nations has reported that more than half of humanity will be living with water shortages, depleted fisheries and polluted coastlines within 50 years because of a worldwide water crisis.¹
- Reports published by NASA state that severe water shortages affecting at least 400 million people today would affect 4 billion people by 2050.
 - Southwestern states such as Arizona will face other severe freshwater shortages by 2025.¹
 - Many states are already clashing over control of rivers as water shortages become more eminent
- A new study has revealed that Human-induced change in Earth's atmosphere will leave the American Southwest in perpetual drought for the next 90 years.¹
- As populations in the Southwest increase, governments will have to make adjustments to reduce water usage.¹

3.1.2 Water Leaks

- Waste and inadequate management of water are the main culprits behind growing problems.
 - Leaks cause the most amount of water wastage and are a major contributing factor to the water crisis.
 - A serious leak left undetected and uncorrected for any length of time can result in both a huge loss of water and money.

- Many Leaks are not detected for months, until, the first suspicion of a leak occurs when high water consumption is noticed on the water bill.²
- The type of Leaks that waste the most amount of water
 - Toilet Leaks
 - High volume water leaks often come from toilets.
 - Hard to detect and are usually caused by worn or misaligned parts.
 - A toilet that continues to run after flushing could be wasting 20-40 liters per hour - that's 175,000 to 350,000 liters.²
 - Water System Leaks
 - Leaks in ground sprinkler heads are a very common problem.
 - A leak in a ground sprinkler system is less noticeable and harder to detect than one in a hose.
 - Leaking Pipes
 - A small hole in a pipe (1.5mm) wastes 280,000 liters (280 cubic meters) in a three-month period.²
 - Continual leaking from this pipe could cost over \$400 in water bills and thousands of dollars worth of damage to your home.²

3.1.3 Sprinkler Leaks

- In the US alone there are 11.7 million external household leaks per year.³
 - Leaking Sprinklers are a major problem in terms of water wastage
 - A household with a leaking sprinkler head can waste 15-20 gallons of water per day.³
 - An over flowing sprinkler can cause extensive damage to landscaping
 - A sprinkler leak left undetected can cause damage to the foundation and structure of the home.
 - This damp environment is ideal for mold build up underground and continued spreading can occur



Rain bird the Leading manufacturer of irrigation equipment published the “Irrigation for a growing world” to increase the awareness of the growing threats posed by global water scarcity - In U.S 25% to 33% of the estimated 101 gallons of water per capita consumed daily in residences is used to water plants, lawns and gardens. In arid regions like the southwestern United States, that percentage can be as high as 70%. As a result, water districts have begun to focus more intensely on outdoor water conservation efforts.

3.2 Environmental trends

3.2.1 Political and regulatory environment

- Due to increased concerns about the water crisis in the USA, government regulations on water conservation are becoming increasingly stringent.
 - **Water Desalination Plants**
 - There is a growing number of new desalination plants planned and being built around the world to help address problems of fresh water shortages.⁴
 - Global output is still small at less than 0.1 percent of the world's drinking water.⁴
 - According to a recent report by Global Water Intelligence however, the desalination industry is expected to grow 140 percent over the next decade.⁴
 - However desalting water is expensive. Typical cost estimates run at about \$650 for 326,000 gallons.⁴
 - In addition there are all the implications to climate issues by introducing many large energy-intensive plants.⁴

Prices- Freshwater versus Desalination

Location	Freshwater (per acre ft)	Desalinated (per acre ft)
U.S.- Carlsbad-CA	\$531	\$794
U.S. – Tampa – FL	\$488-\$570	\$811

Currently 13,600 desalination plants worldwide produce a total of 6.8 billion of water daily, less than 1% of all the world's needs¹³

- **Tax on Bottled water**
 - The deterioration of fresh water resources in US and contamination of tap has led increased consumption of bottled water.
 - Government is considering a tax on bottled water, in order to control consumption
 - I. Primarily due to the oil it takes to produce and transport the plastic bottles.
 - II. Also the non-biodegradable nature of plastic.
- **Fines on water wastage**
 - The recent drought in the state of Georgia led to the state government passing a regulation charge a \$1000 fine on the use of sprinklers until conditions improve.⁵
- **Switch to Nuclear Energy to Reduce Global Warming**

- Nuclear energy produces no air pollution or greenhouse gases. Without its use, carbon dioxide emissions would have been 28 percent greater in the electricity industry in 2005.⁶
- The Nuclear Regulatory Commission (NRC) Is Working To Improve And Streamline The Regulatory Process To Help Accelerate The Construction Of Nuclear Plants.⁶
- The Energy Bill The President Signed In 2005 Provides Production Tax Credits And Federal Risk Insurance For Builders Of New Nuclear Plants.⁶
- Switching to Nuclear energy will reduce the green house affect and global warming, and slow the loss of our fresh water reserves.⁶
- However Green Peace is against the switch to Nuclear energy and s fighting vigorously against Nuclear power.⁶
- Their opposition is due to -
 1. Tons of lethal high-level radioactive waste, which will contribute to further proliferation of nuclear weapons
 2. This can result in a Chernobyl-scale accident once every decade.
 3. It will also squander the resources necessary to implement meaningful climate change solutions.

3.2.2 Social Factors

- **Environmental Consciousness**
 - There is an increased trend towards environmental consciousness, as consumers are becoming increasingly aware of the water crisis and water shortage issues.
 - Consumers are moving towards building greener homes that are energy and water efficient.
- **Pollution in the tap water**
 - There are mounting concerns over long term health risks and the skyrocketing cost of water treatment associated with pesticide contaminated tap water in hundreds of Midwestern towns.
 - There is an increase is consumption of bottled water due to the potential health risks of consuming the contaminated tap water.

3.3 Company

3.3.1 Company History

- **IC Meca**
 - Founded and run by Daniel Chang
 - M.S.E.E., California State University at Northridge

- Has 21 years of experience in designing and manufacturing physical measurement instruments.
- His team also includes Andrew Hood
 - PhD, E.E., Northwestern University,
 - Is specialized in ASIC and FPGA designs.
- Located in Thousand Oaks, California
- Established 3 years ago
- Design and manufacture Physical/Mechanical Test Instruments in the Metrology field.
- Their commitment is to supply customers with the best quality products, service, reasonable price and fast turn-around time.
- **Operations & Marketing**
 - IC Meca is currently focused on the commercial, business to business, market segment and makes products as per order.
- **Manufacturing** of the product is outsourced to a third party.
- **Distribution** is done directly, each product is hand delivered to the customer.
- **Promotions** include demonstrations and telephone call networking

3.3.2 Current Situation

- **MWD Grant**
 - Daniel Chang the founding director of IC Meca was awarded a grant by the Metropolitan Water District to complete the development of his innovative product idea for conserving water.
- **The award-winning product**
 - Automatic Leak Detector for the sprinkler systems of households.
 - These detectors can also be used for commercial and government sprinkler systems.
 - He also plans to expand his Leak detection product line by developing toilet leak detector and pencil leak detector.

3.3.3 Product portfolio

- **LD-Sprinkler (Leak Detector for Sprinkler Systems)**
 - LD-SPRINKLER is a controller/ultrasound transducer (one integral part) installed to an existing automatic sprinkler system.
 - The purpose of this controller is to first detect water leaks in the system, and then shut off the specific sprinkler valve that supplies water to the broken sprinkler head.
- **LD-Toilet**
 - LD-Toilet is a controller/ultrasound transducer/latching valve (one integral part) installed to an existing toilet.
 - The purpose of this controller is to first detect water leaks in the system, and then shut off the latching valve that supplies water to the toilet.
- **LD-R/T**

- LD-R is a pencil type portable ultrasound leak detector.
- The number of LEDs turned on depends on the magnitude (strength) of ultrasound signal.
- LD-T is a pencil type portable ultrasound transmitter, which transmits ultrasound frequency at 40 KHz.

3.4 Competitor analysis

Leak Detection Services

- The leak detection industry currently is primarily a service dominated industry.
 - Households, Commercial entities and the Government sector use Leak detection services.

Leak detection specialists⁸

- Once there is suspicion of a leak, a leak detection specialist could be contacted
 - American leak detection agency
 - One of the largest leak detection agencies in America
 - They use Infra red thermograph
 - Also use listening equipment to detect a leak

Strengths - Professionals and Use High-tech Equipment

Weaknesses – Expensive



Leak Detection Products

- Leak detection products do exist; however, they are either not very effective, hard to install, heavy duty or extremely expensive.
 - Products such as the Leak Pro are generally used by individual household consumers who want to avoid the cost of having to call in a leak detection agency.
 - Other products like Water Alert and Early Warning Alarm are used by Household consumers who have valuable possession in their homes and need immediate detection of leaks
 - Also used by commercial and government entities that have expensive electronics or highly susceptible paper work that must to be protected from water damage.

Leak Pro – Leak detection equipment⁹

- The LEAK PRO probe is a piece of equipment to detect "Slab Leaks" or other underground water leaks.
 - It requires head phones to listen for the leak.

Strengths – Less expensive

Weaknesses – Hard to use

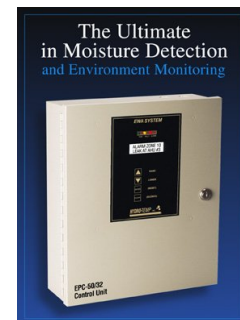


Hydro Temp Inc - Early warning Alarm¹⁰

- This system provides early warning of liquid leaks using Lineal Leak Detection method.
 - The EWA System consists of a solid state Control Unit that monitor that warns of:
 - Liquid leaks
 - Changes in temperature
 - Humidity and liquid levels.

Strengths – Sounds Alarm to warn

Weaknesses – Expensive, False Alarms



Dorlen Products Inc – Water Alert¹¹

- This system provides early warning for leaks and drips.
 - Water alert can be used in suspended ceilings and beneath the floor.
 - Upon water alert activation the monitor will sound an audible alarm.

MODEL WM-6(T) and WM-12(T)



Strengths – Sounds Alarm to warn

Weaknesses – Expensive, False Alarms

Ideative – LeakFrog®¹²

- Leakfrog is a water detector that is placed on a flat surface where water is unwanted.
 - Once it detects water puddling around it the LeakFrog will sound an alarm.
 - Leakfrog is very inexpensive at around \$12.99 each.



Strengths – Very Reasonable Price

Weaknesses – Limited scope, False Alarms

3.5 Customer analysis

- **Suffered Leaks**
 - Consumers that have suffered the consequences of leaks.
 - Learnt a bitter lesson about the damage sprinkler leaks can cause.
 - Would display **High Involvement** and evaluate the product attributes in detail and spend a considerable amount of time searching for the product.
 - These consumers would use **extensive problem solving** when making their purchase decision.
 - These customers would also be much less price sensitive.
- **Not Suffered Leaks**
 - Consumers that have not suffered the consequences of leaks.
 - Have not realized the magnitude of damage and costs of repair.
 - Would display **Low involvement** and spend little time evaluating the product attributes and spend a small amount of time searching for the product.

- These consumers would use **limited problem solving** when making their purchase decision.
- They will evaluate it more than a daily routine purchase, but not as much as those who have already suffered from consequences of leaks.
- These customers will be more price sensitive than those who have suffered leaks.

3.6 SWOT Analysis

3.6.1 Strengths

- **The Sprinkler Leak Detector is a new and innovative product**
 - There is no other product in the market that is like it.
 - It currently has a patent pending, and this will help prevent competitors from trying to replicate or copy the product.
 - It is also very easy to install
 - Therefore consumers do not need the help of a professional or plumber to install it, it is a do-it-yourself product.
 - The grant awarded by the metropolitan water district to complete the development of this product adds to the credibility of the product.
 - It creates a good impression to have the backing of the MWD
- **Over twenty years of engineering experience**
 - Daniel Chang the founding director of IC Meca has over 20 years of engineering experience and this is a key strength to the company.
 - This is what has enabled the innovation of the new line of leak detection products.
 - His experience is key to the R&D required to remain competitive in the industry.
- **Experience in handling Business-to-Business transactions**
 - IC Meca have been transacting with commercial businesses and possess the essential marketing and customer relations skills required to deal with the commercial sector.
 - They have been managing their transaction and client relationships well.
 - This is what has enabled them to be profitable for all three years since their inception.
- **Utilizes outsourcing for manufacturing**
 - The use of outsourcing for their manufacturing processes enables IC Meca to have a flexible manufacturing process and prevents too much capital being tied up in facilities and equipment.
 - Investing too much in developing an in house manufacturing process will only hinder IC Meca mission on continuous innovation.
 - Therefore the use of outsourcing for manufacturing is ideal for IC Meca to succeed

3.6.2 Weaknesses

- **Lack of working capital**
 - One of the challenges IC Meca faces is a lack of working capital.
 - In order to effectively develop, market and launch the Sprinkler Leak detector IC Meca will have to rely on external funding.
 - However this is not a challenge that cannot be over come, because external funding can be obtained.
- **No consumer marketing experience**
 - In the past since IC Meca has done business solely with the commercial sector, so it does not possess expertise in the area of transacting with and marketing to the consumer sector.
 - However this too will not set back IC Meca too much because experts in this field can be hired.

3.6.3 Opportunities

- **Unfulfilled need for the product**
 - Based on the information outlined above it is apparent that there is a need for leak detection devices.
 - Looking at the competition it is clear that although some products and services exist they have not yet fulfilled this need.
 - Current products are either: too “heavy-duty” and expensive, or too light weight and ineffective.
- **Increase in environmental concerns**
 - As people experience these atmospheric phenomena first hand they become increasingly environmentally conscious.
 - There is an increase in demand for Green Homes and Green products.*
 - Home improvement stores have introduced new eco friendly products and are continuing to invest heavily in these products
- **Water scarcity issues**
 - A third of the world's population lives in water-stressed countries now.
 - By 2025, this is expected to rise to two-thirds.
 - Americans use the most amount of water in the world and lack of it will be a major crisis.**

3.6.4 Threats

- **Low barriers to entry**
 - Even though Proprietary products and knowledge can wade away potential new entrants, there is a risk that the product can be replicated with a few changes and passed off as a new product

* See Fig.1 in Appendix 2

** See Fig.2 in Appendix 2

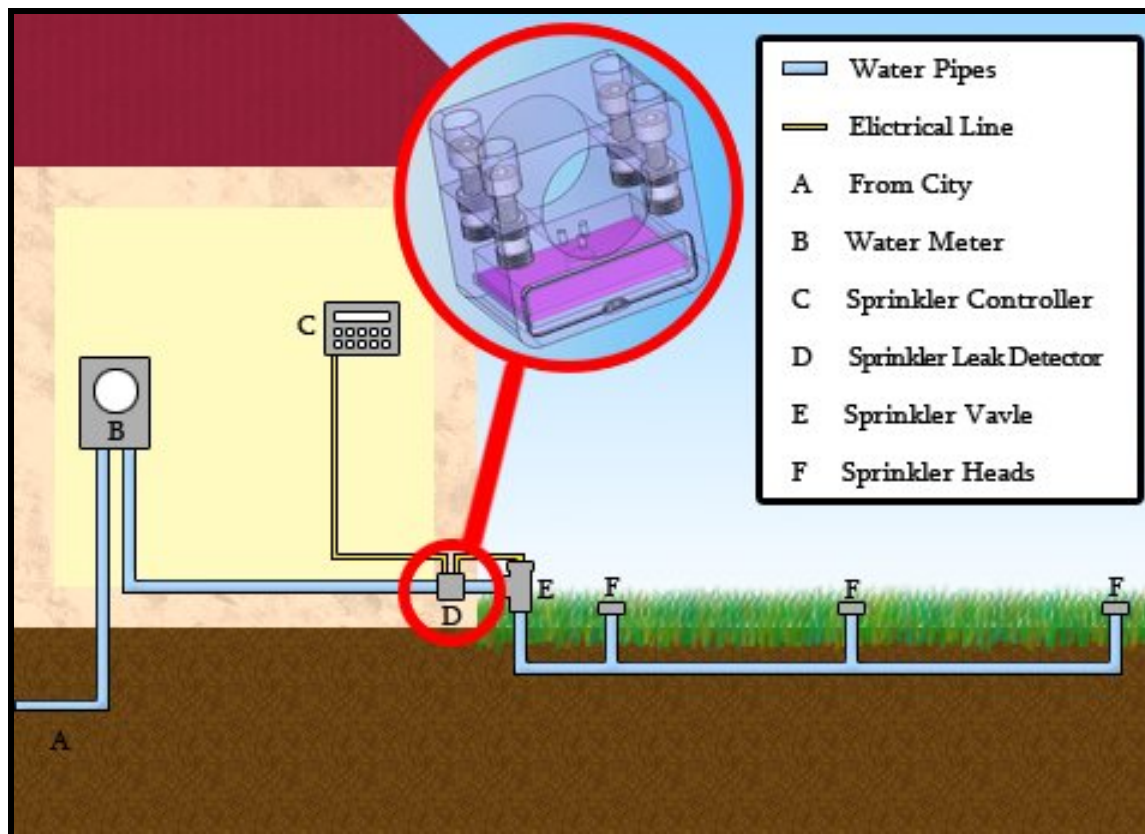
- Access to outsourcing manufacturing to countries like china where the costs are low adds to this risk
- However if market share is captured quickly this risk can be minimized
- **Artificial landscaping**
 - Artificial turf or Synthetic grass was originally used in sports arenas, but not is being used in residential lawns and also commercial applications.
 - Some consumers prefer this form of landscaping because it is less hassle when compared to maintaining a natural lawn
 - This is however not a significant trend and most consumer still prefer and use natural landscaping
 - Not a significant threat

4. Product Details – Sprinkler Leak Detector

This section covers a detailed description of the product and how it works. An in-depth knowledge of the product enables the identification of the appropriate target market and marketing strategies.

4.1 General Descriptions

*LeakBuster™ is a controller/ultrasound transducer installed to an existing automatic sprinkler system.



- The device securely attaches around the water pipe next to the water valve where it analyzes the water pressure flowing through the pipe.
- Upon detecting a leak the device sends a signal to the valve to shut off the system preventing any further damage which may be caused by a leak.

4.2 Key Features

The LeakBuster™ has many important features that benefit the user.

* For detailed explanation on how LeakBuster™ got its name see Appendix 1.

- The LeakBuster™ comes as an easy to use device that anyone can install.
 - The device is packaged as two halves which the user joins around the water pipe and screws together.
 - To ensure the parts are properly secured four 6 inch screws are mounted on the device to keep it fastened.
- The sensitive sensors read and analyze the water pressure going through the pipe from the outer wall of the pipe.
 - **Averts the hassle of expensive installation where plumbers must cut off the pipe to fit a device into the watering system.**
 - The device has a memory chip that compiles logs of readings over time that can learn what levels of water flow within a certain range is considered normal.
 - The readings automatically adjust to the individual owner.
- Once the device signals the valve to shut off an alert system is activated to notify the home owner of the situation.
 - The LeakBuster™ produces a beeping noise to catch the attention of the user and warn that a problem has occurred.

4.3 Benefits

LeakBuster™ provides many benefits to its user.

- As the device maintains a steady water pressure it ensures that the lawn is watered under prime conditions.
 - As long as the water pressure throughout the system is normal the device will let it run.
 - The LeakBuster™ supervises the system to ensure the system runs smoothly and efficiently.
- The device shuts off the system when a problem occurs in the sprinkler system.
 - If one of the sprinklers is broken or damaged the system will be shut off to prevent inefficient and wasteful use of water.
 - The homeowner is saved from a higher water bill resulting from water gushing out of a broken sprinkler.
 - Also, the lawn is protected from over watering of one section of the lawn due to the broken sprinkler and under watering the other parts of the lawn due to lower water pressure.
 - The over watered section will drown the grass or plants resulting in death and/or wash away essential nutrients.
 - The under watered section causes the grass or plants to die and wither resulting in an unattractive lawn.
 - The device also detects abnormal leaks within the piping system and prevents the manifestation of problems from developing.
 - Pipe leaks are hard to detect until a symptom of the leak emerges.

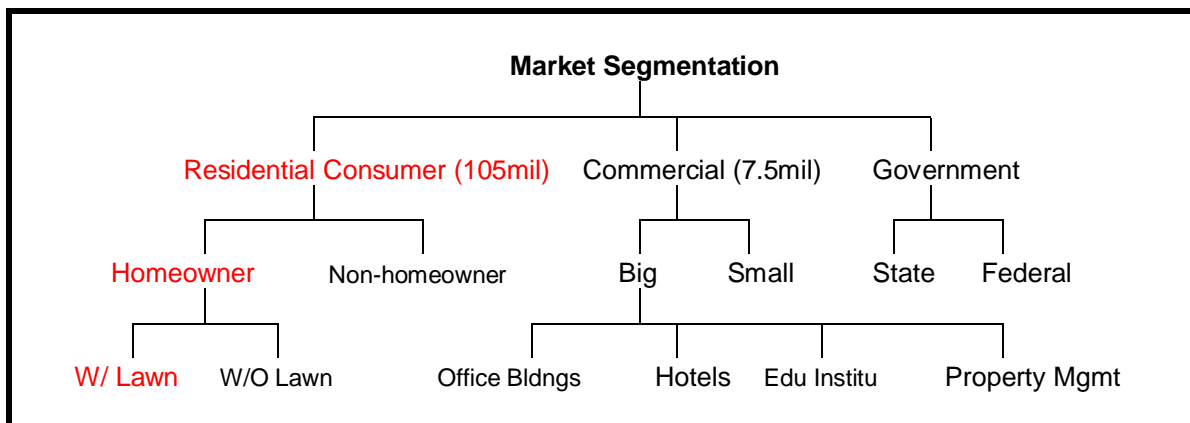
- Whether small or big underground leaks may cause expensive landscape damage or structural damage if the leak occurs near the home.

5. Segmentation, Target Markets & Positioning

Analysis of the Market segments for the product enabled the identification of sub groups of individuals that share one or more characteristics that have a need for this product.

5.1 Segmentation

- The existing leak detection services provided and leak detection products in the industry are being utilized by each of these categories.
 1. **Residential Consumers** - This is the individual consumers or households; this segment is sub segmented to **by status**- Homeowner and the Non Homeowner
 2. **Commercial and Industrial** - The commercial entities or industrial sector such as agricultural, this segment is sub divided **by Size**, the Big business and industrial entities and the smaller ones
 3. **Government** - This is the public sector; it has been sub divided **by Geographic region** the National and the Regional levels



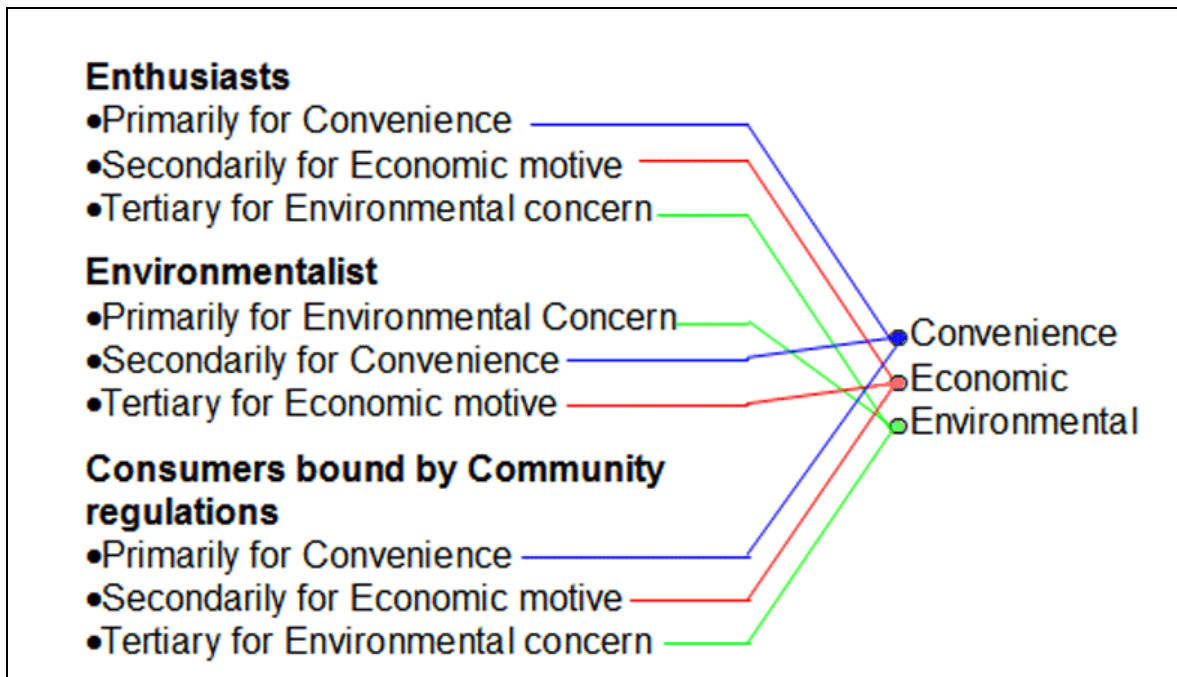
5.2 Target Markets

- **Household Consumers**
 - The target market for the LeakBuster™ would be the consumer sector.
 - We chose to focus on marketing to residential consumers because there are 105 million residential homes nation wide, and this represents a huge market for the LeakBuster™.
 - **Home Owners with lawns**
 - Of these residential homes our target segment will be Homeowners as apposed to Renters.
 - The primary reason for this is because homeowners are inclined to spend more on home maintenance and landscape maintenance as opposed to renters.

- Also renters usually do not pay their own utility bills therefore will not be as concerned as the home owners about wasted water leading to high utility bills.
- Our target segment is focused further to include homeowners that have lawns, for the apparent reason that the LeakBuster™ would only be of use if the home has a lawn(s) with a sprinkler system.
- **Sub segments** of consumers who would be interested in the LeakBuster™.
 1. **Enthusiast** – Are a sub segment of our target market and **this sub segment is defined by having either one or more of these attributes**
 - Prestige Seeking
 - i. These are consumers that are fanatics about maintaining their lawns.
 - ii. They are obsessed with landscaping and care greatly about the appearance of their lawn, mainly for the prestige of having a well-kept lawn
 2. **Environmentalism**
 - These are consumer that very concerned about the environment and would like to contribute to preserving it in every way they can.
 - i. Environmentalists in areas where water scarcity issues exist would be more actively concerned about conserving water in comparison to an environmentalist in areas where this issue is not as prevalent
 3. **Community Regulations**
 - These are consumer segments that live in gated communities and are bound by the Homeowners association regulations to maintain their landscaping up to a certain standard.
 - These regulations are mainly to maintain the aesthetic appeal of the community.
 - These consumers would not always enjoy the up keep of their lawn but they are bound by the regulations.
- **Additional Characteristics**, which will increase the likelihood of purchasing the product.
 - Suffered Leaks
 - These are consumers that have suffered a prior Sprinkler Leak and want to go to every extent to avoid future leaks.
 - They have suffered the consequences and would go to any extent to take precautions.
 - Have Children

- Consumers with children are usually extremely busy and willing to invest in products that would prevent them from encountering any future problems.
- They would also be concerned for the health of their children, due to the consequences of leaks such as muddy lawns and mold build up.
- Older Aged
 - These are consumers who have the highest discretionary income.
 - Also includes retired individual who like to maintain their homes and travel a lot.
 - Senior citizen living independently would be interested in this product.
- Travel a lot
 - Leaks that occur while residents are away from their homes are the worst leaks that cause the most amount of damage to the landscape and home.
 - Therefore consumers who travel a lot would be very interested the LeakBuster™.

5.3 Positioning



- Identifying the sequence of benefits for each target segment enabled the identification of the significance of each benefit.
 - The transferred benefit to the Enthusiasts, Environmentalists and Consumers bound by community regulations varies in terms of the intensity of each benefit transferred; however, the overall benefits remain the same.
 - Therefore each target segment will not be dealt with individually for the marketing campaign a concentrated marketing strategy will be used.
- The sequence for the marketing strategy is convenience, economic motives and finally environmental concerns.
- Each individual sequence of benefits was analyzed and the mean of these sequences was selected.*

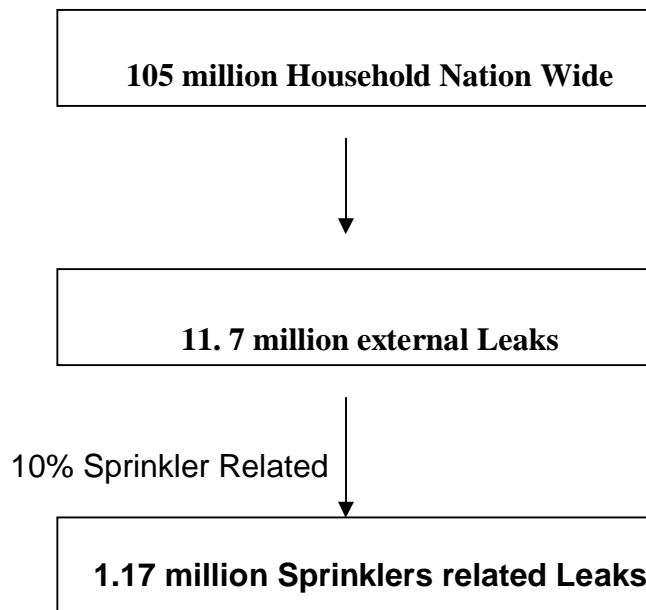
* For detailed breakdown of benefits see Appendix 3.

6. Forecasting

Forecasting is essential in order to plan investments for the launch of Leak Buster™. The sales forecasting process is critical because key decisions are derived from the sales forecast:

- Investment required
- Promotional mix
- Employment levels required

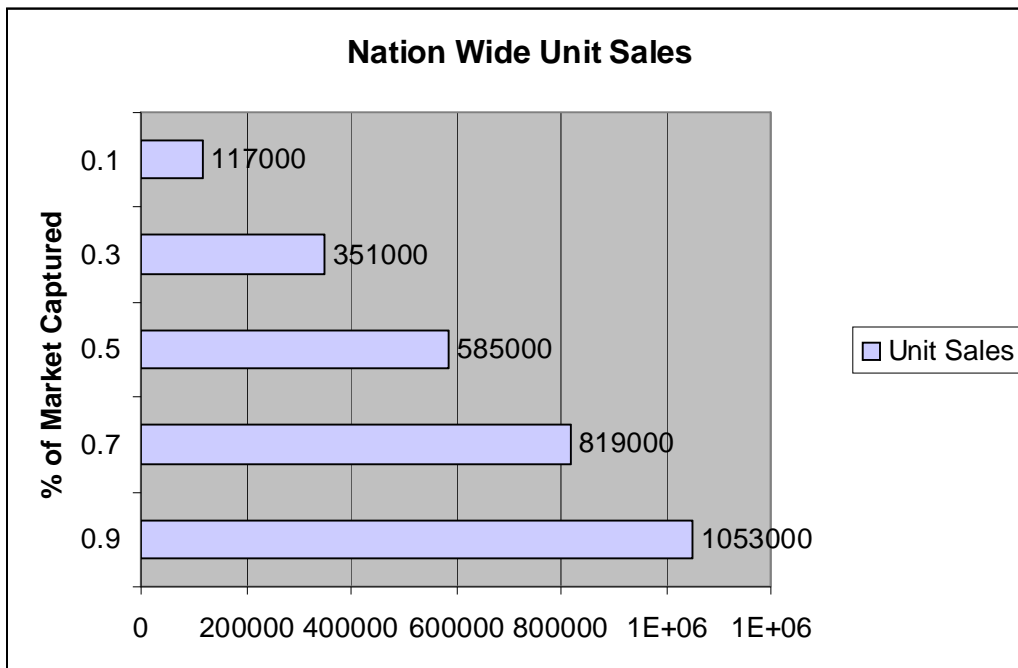
6.1 Nation wide Sales Forecast



- The target segment consists of 105 million households and these home suffer 11.7 million external Leaks per year.
- Making a conservative estimate that 10% of these Leaks are sprinkler related, approximately 1.17 million sprinkler related leaks per year is estimated

Out of the 1.17 million households that suffer sprinkler Leaks, how many of these households would purchase the Leak Buster™ can only be identified in the form of a range.

Leaks	Percentage of the Market Captured	Estimate
1.17 million leaks nation Wide per year	0.90	1053000
	0.70	819000
	0.50	585000
	0.30	351000
	0.10	117000



A Conservative estimate of approximately 117000 unit sales by capturing 10% of the market or an extremely optimistic estimate of capturing 90% of the market and selling approximately 1053000 units can be made.

Even though a definite figure of nation wide demand cannot be identified a range, enables the ability to identify the expected demand when targeting to capture a specific percentage of the market.

6.2 Regional Forecast

The number of residential home owners nation wide being approximately 80 million

Making a prediction that 50% of the nation wide market could be captured, we can forecast that 585000 units could be sold.

$585000 / 80 \text{ million} = 0.00731$ Demand as a percentage of Nation Wide Home owners

Since the launch of the product is first going to be a regional launch we identified Five regions that would be the ideal locations to launch the product

County	Population	Home-owners	Demand Forecast
San Bernardino	1,999,332	1,402,548	10,239
San Diego	2,941,454	549,408	4,011
Riverside	2,026,803	1,327,556	9,691
Ventura	799,720	1,873,278	13,675
Orange County	3,002,048	1,694,278	12,368

Total Regional Demand Forecast	49,983 units
---------------------------------------	---------------------

- In order to identify the regions to target the population and drought conditions were analyzed.
- Once the regions were identified, the number of homeowners in these regions was identified.

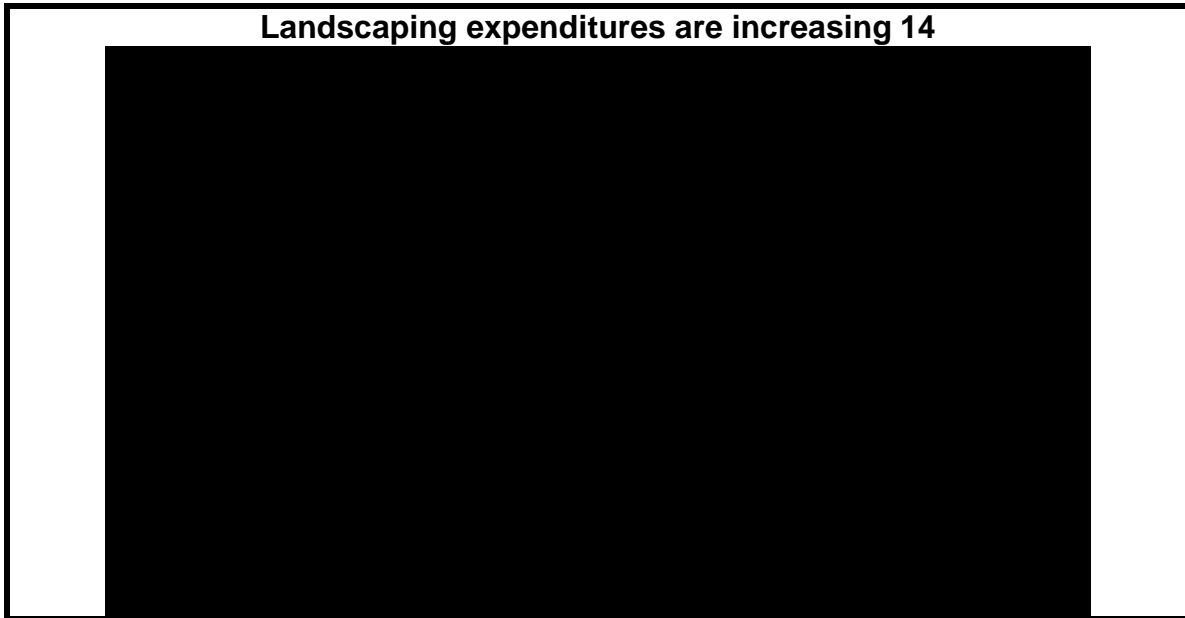
In order to calculate the Regional Demand Forecast

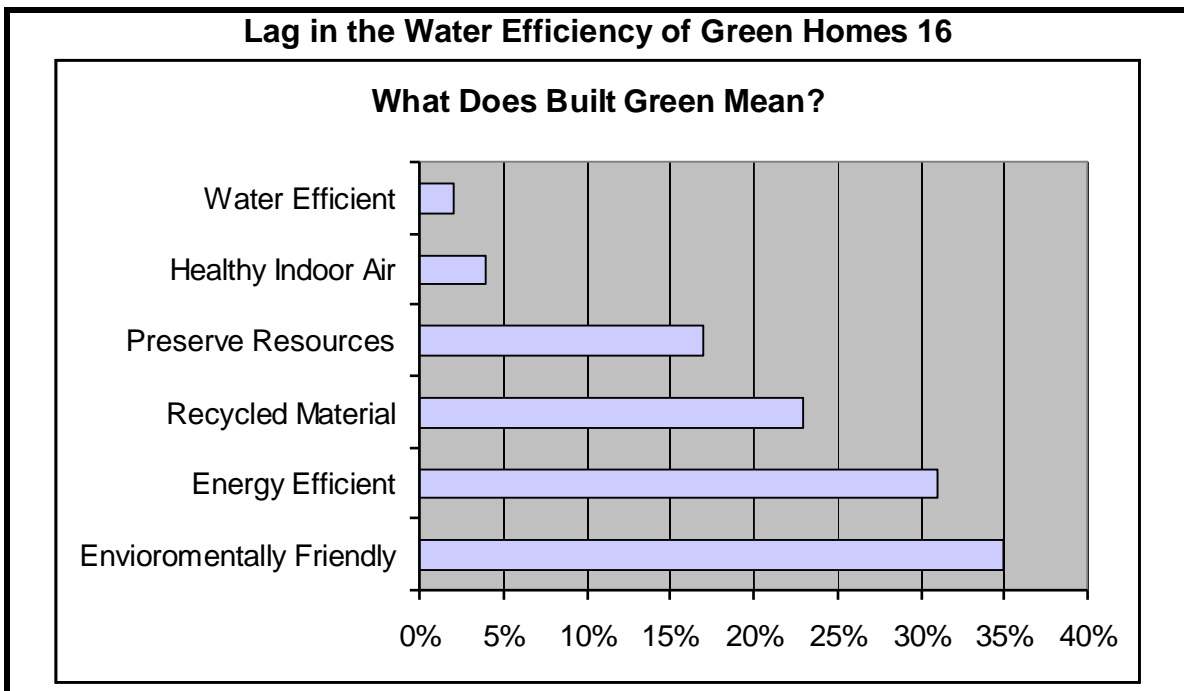
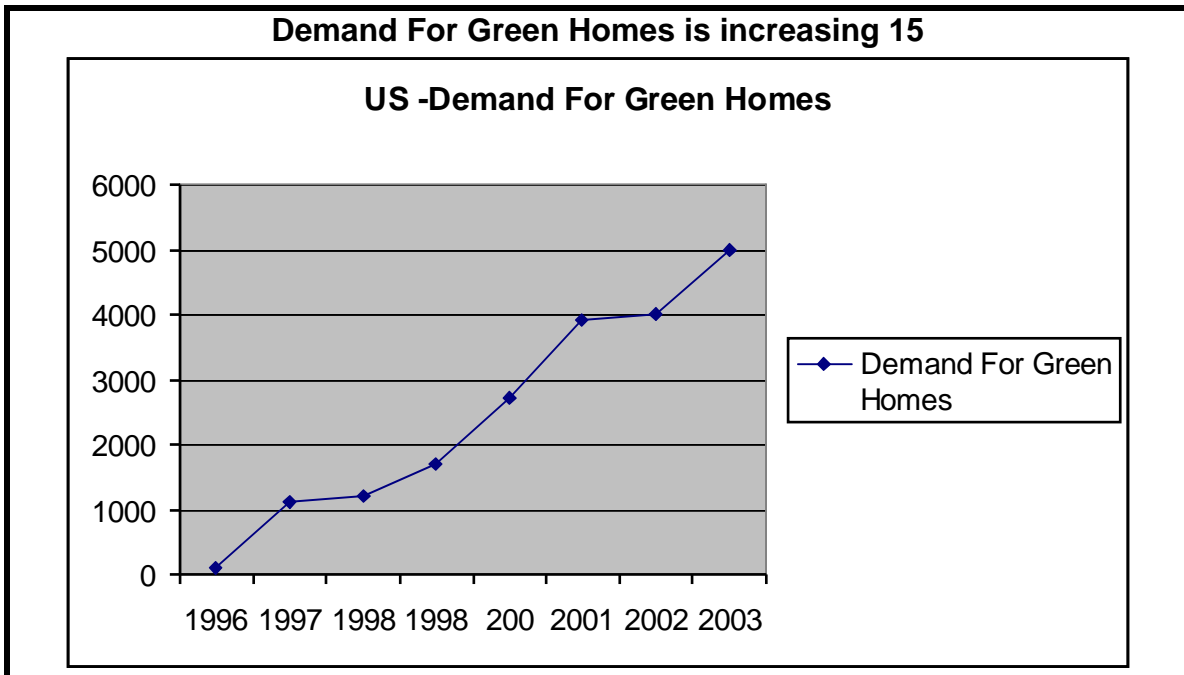
The number of Homeowners in each region was multiplied 0.0073, which is nation wide demand as percentage of nation wide homeowners

6.3 Overall Health Indicators

Analyzing the indicators that provide an insight into the overall industry potential enables that identification of the over all health of the industry. Thus in turn helps make the decision as to the amount of market share we can aim at capturing

The indicators show that





7. Key Success Factors

After analyzing the environmental forces and internal capabilities we have identified five essential factors for LeakBuster™ to be a success.

- **Sufficient Capital**
 - To implement a wide ranged marketing plan millions of dollars will be required.
 - This capital will be generated through networking with investors and venture capitalists.
 - IC Meca will also seek loans from their financial institution.
- **Market Share**
 - To establish the LeakBuster™ as first mover and original innovation a substantial market share must be captured to ensure its place at the forefront of consumer perceptions.
 - Once achieved R&D and other expenses can be spread over large amount of units keeping prices low and maintain value to consumers.
 - It is imperative to capture a major slice of the market before followers flood the market with imitative products and diminished the innovations uniqueness.
- **Awareness**
 - In drought or water shortage regions the benefits of water saving devices are readily understood due to water savings programs publicized by Water Agencies. (ex. Metropolitan Water District)
 - This target will cost the least to entice purchase intentions.
 - To widen the scope and capture a larger percentage of households an need awareness generation program focusing on the microenvironment, consumer benefits, i.e. lawn damage prevention, will be implemented over mass media.
- **Distribution**
 - Sell products through Home Depot, OSH, Wal-Mart and other mass retailers to reach the mass consumer.
 - To ensure efficiency brokers with experience in dealing with large box retailers needs to be employed.
- **Preserve Technology**
 - To stay ahead of the IC Meca must focus on inventing new product innovations to keep ahead of followers and also secure patents for their technology.

8. Strategic Marketing Alternatives

After considering many different marketing strategies capable of launching LeakBuster™ we have identified the four alternatives which have the best possibility for success. These strategies include: Intermediary Sales, Mass Retail Distribution, Direct Response Marketing, and Limited Retail Distribution.

Upon analyzing these four alternatives we will provide recommendations of one or a mixture of several strategies for both the short and long term.

8.1 Strategy 1 – Intermediary Sales Network (via Trade Professionals)

- The strategy of **Intermediary sales is to find appropriate middle men between IC Meca and the end user** who will sell our product.
 - **Potential intermediaries** include contractors such as **landscapers and plumbers**, as well as **brokers and distributors**.
- Using **trade professionals** such as landscapers and plumbers provides several **advantages**.
 - These contractors are afforded **expert credibility** by, and have **existing relationships** with, their customers meaning the customer is more apt to accept suggestions from them.
 - Also, these professionals have the ability to identify situations where a sprinkler leak detector is directly applicable.
 - The most significant advantage to this strategy is the ability to use all of these intermediaries as an **extended marketing network without having to employ our own sales force**.
 - This has the potential to **dramatically decrease the cost of marketing** needed to introduce the LeakBuster™ to the market.
- This strategy does have its **disadvantages**.
 - The first disadvantage is potentially **high initial costs of recruiting** the intermediary network.
 - Contacting and convincing individual contractors or contractors' organizations could be costly and there is no guaranteed response rate.
 - It may be **possible to mitigate some of this cost** by attending tradeshows and developing relationships there.
 - We also have to consider that there will be a **loss in control of the marketing message**.
 - These are third parties and as such we have no way to supervise or control what they say or do with our products.
- Using the **strategy of Intermediary Sales**, in the form of trade professionals, is a **low risk, low cost, low impact** strategy.
 - With the ability to introduce LeakBuster™ to the market and **provide us with initial feedback** about the product.

- However, it will not quickly capture market share or create broad awareness of the product.

8.2 Strategy 2 – Mass Retail Distribution

- The strategy of **Mass Retail Distribution is to have LeakBuster™ placed in large retail distributors** such as Lowes or Home Depot **and create awareness using push and pull communications.**
- **Mass retail distribution has the advantages of:**
 - **Quickly capturing market share** and reaching a **massive consumer base nation wide.**
 - Home Depot for example has over 2,200 stores nation wide which service millions of consumers.
 - Placing LeakBuster™ in stores of this kind also serves to **build its credibility** as consumers know that Home Depot has high standards for quality.
 - Additionally products in these stores are known to be **DIY friendly** which is an **attribute of LeakBuster™.**
- While this strategy has the biggest potential for profit and capturing market share it also comes at the greatest costs. These **disadvantages** are:
 - To make it into stores of this type IC Meca would **need the capital to produce large enough inventories to meet these stores minimum demands.**
 - This is **beyond IC Meca current capabilities** with its limited working capital.
 - Beyond production, strategies of this type require **push and/or pull communications** which have a **high cost** associated.
 - Push – ex: **in store displays** or promotional offers
 - Pull – ex: **advertising to end consumer**
- **Mass Retail Distribution is a high risk, high cost, and high impact strategy.**
 - With the ability to introduce LeakBuster™ to the market while **quickly capturing market share** and collecting the **highest potential profit.**
 - This is the **ideal long term strategy**, but given the current stage of the product and capacities of IC Meca it is **not a realistic short term strategy** for introducing LeakBuster™.

8.3 Strategy 3 – Direct Response Marketing

- The strategy of **Direct Response Marketing is to sell LeakBuster™ directly to consumers**
 - Primarily through **Direct Response Television** advertising and the **Internet.**
- **Direct Response Television** advertising has many **advantages.**

- It is **scaleable** and **highly targetable** which would allow us to focus only on those regions which are determined to have the highest profit potential.
- By the nature of how DRTV works **results are realized very quickly**.
 - If the product is found to be successful in one region it is possible to turn around and implement the same strategy in another region almost immediately.
- Direct response also has the **unique ability to up sell** customers as their orders are taken.
- Also, direct response **takes advantage of impulse buying** meaning it can reach consumers who would otherwise not be likely to purchase LeakBuster™.
- Finally, this type of marketing allows us **great control of the marketing message** unlike with intermediary sales.
 - This would allow us **to create awareness** for the product and **construct a brand image** which can be applied to future sales of this and other products.
- The **disadvantage** to the strategy of Direct Response Marketing is its **high risk**.
 - It is **very difficult to predict demand** from direct response marketing particularly with a new product such as LeakBuster™.
 - This could hurt us in two ways:
 - If demand is higher than expected we may be unable to fill all orders which could result in customers being annoyed and have a negative effect on our reputation, as well as wasted sales.
 - If demand is lower than expected we will have to absorb the relatively high absolute costs associated with Television Advertising.
- **Direct Response Marketing** is a **high risk, medium cost, and medium to high impact** strategy.
 - With the ability to introduce LeakBuster™ to the market and see **quick results**.
 - Would **build a brand image** for both the product and company.
 - It has the potential to be **highly profitable**, but is **not ideal for a long term** strategy.
 - If focused and carefully targeted this strategy is feasible given IC Meca' capabilities

8.4 Strategy 4 – Limited Retail Distribution

- The strategy of **Limited Retail Distribution** is similar to that of Mass Retail Distribution
 - But **sells through smaller chains with independently owned stores** which do not have unified product lines.

- **Limited Retail Distribution** has the **advantage** of **placing the product** in physical stores alongside complementary products, such as sprinkler heads.
 - **Where customers are actively seeking** to deal with relevant problems.
 - This type of distribution can also **quickly capture market share within a limited region**.
 - But not to the extent of mass retail distribution.
 - Perhaps the biggest advantage is that it **builds a track record and credibility for the product**.
 - This would aid in future expansion to a long term mass retail strategy.
- Like mass retail distribution this strategy would also require some type of push and/or pull communication.
 - Likely this would involve in store displays, favorable shelf space and eye catching packaging.
- **Limited Retail Distribution** is a **low risk, medium cost, and medium to high impact** strategy.
 - With the ability to introduce LeakBuster™ to the market and see **steady results**.
 - This strategy has the ability to **capture market share within its given regions**.
 - As well as **build credibility** and **develop a track record** for the product.
 - The strategy is appropriately matched with both IC Meca' capabilities and LeakBuster's™ current stage in its lifecycle.

9. Recommended Strategy

Based on the four alternatives discussed in the previous section we have formed recommendations. These recommendations include both short and long term strategies as well as Specific, Measurable, Achievable, Realistic, and Time bound (SMART) objectives.

9.1 Recommendation

- **We recommend that in the short term (first year) IC Meca follows the strategy of Direct Response Marketing (DRM) to introduce LeakBuster™ to the market.**
 - DRM should be conducted on a **small scale and focused on regions which have been identified as having the highest potential** interest in LeakBuster™.
 - Results should be closely monitored as they will indicate whether:
 - The strategy is effective and should be continued.
 - The strategy is ineffective and should be tweaked or discontinued in favor of a different approach.

9.2 Objectives

It is important to have objectives when implementing any business strategy in order to gauge progress. This will allow for strategies to be continued, modified, or discontinued in favor of better alternatives, to best maximize the resources of IC Meca.

- The implementation of a DRM strategy has the following objectives:
 - **Develop a brand image** which can be applied to both LeakBuster™ and future products being developed by IC Meca.
 - **Specific** – We would like consumers to: a) recognize the name of the brand, b) connect the name to the product, c) perceive the brand as DIY and inexpensive, d) but effective and valuable.
 - **Measurable** – Perception and recognition of brand image can be measured by administering surveys within the regions where marketing efforts have been made.
 - **Achievable** – This brand image can be established through the use of effective marketing.
 - **Realistic** – If kept focused and targeted correctly this objective should be realizable in its specified regions.
 - **Time Bound** – Should be checked after the first month of advertisements and again each subsequent month that advertising is shown.

- **Build credibility and capital required to implement a long term retail distribution strategy.**

9.3 Marketing Mix

The short term strategy of direct sales can be broken down into four component parts known as the marketing mix. This mix includes sub strategies for: Product, Price, Distribution and Promotion.

9.3.1 Product

IC Meca should aim to make LeakBuster™ the competitive leader in its product category. In its product category a major advantage of this product is its innovative and unique nature. Additionally LeakBuster™ will have first mover status, as no competition has taken a hold on the market, and establishing itself as the leader early on will be feasible. For these two reasons it is best to attempt to maintain competitive leadership.

- **Strategy** – As a new and unique product we will attempt to **maintain competitive leadership within the product category.**
- **Tactics**
 - LeakBuster™ is designed for easy use and installation.
 - It is a **DIY friendly device** which is able to be installed by the end user without expert supervision.
 - Our product will also be **engineered to the highest quality and continually improved.**
 - In addition to the physical attributes of the product we can also bundle the product to create a better perceived value.
 - We can offer special pricing for multiple purchase orders.
 - Packaging will be kept lightweight to reduce shipping costs as well as to fit with the product's "environmentally friendly" image.

9.3.2 Price

Using a price penetration strategy is important to allow LeakBuster™ to capture market share quickly early on. Also, this pricing strategy will result in a level of cost leadership which is part of the products positioning.

- **Strategy** – IC Meca will use a **penetration pricing strategy resulting in cost leadership.**
 - A price skimming strategy is also a consideration as future versions of the product are created.
- **Tactics**
 - Keep price low to avoid undercutting and promote impulse buying
 - Keeping the price low in the introduction state will help market penetration.

- As new versions of the product become available a price skimming strategy can be used to capitalize on different consumer markets.

9.3.3 Distribution

The key to distribution for this strategy will be to target specific areas and be able to service them directly.

- **Strategy** – Use direct distribution to complement the direct response method of selling.
- **Tactics**
 - Hire a **third party fulfillment company** to handle inventory, order taking and shipping.
 - **Target specific regions** which have been identified as having the highest potential interest for LeakBuster™ based on a number of factors.
 - These **regions include:**
 - San Bernardino County
 - San Diego County
 - Riverside County
 - Ventura County
 - Orange County

9.3.4 Promotion

- **Strategy** – Use mass narrow casting media to reach potential consumers within a defined region.
 - Mass applies to the “mass consumer” which LeakBuster™ is applicable to.
 - Narrow Casting applies to the focusing of media to specific geographic regions.
 - Regions for promotion coincide with regions for distribution.
- **Tactics**
 - IC Meca will seek out a third party who specializes in direct response advertising
 - Direct response advertising is in itself a very complex operation and drawing on the experience of an expert entity will help to minimize risk.
 - We will use Television commercials, which follow the recognizable infomercial format.
 - “Call Now!”
 - “But wait, there’s more!”

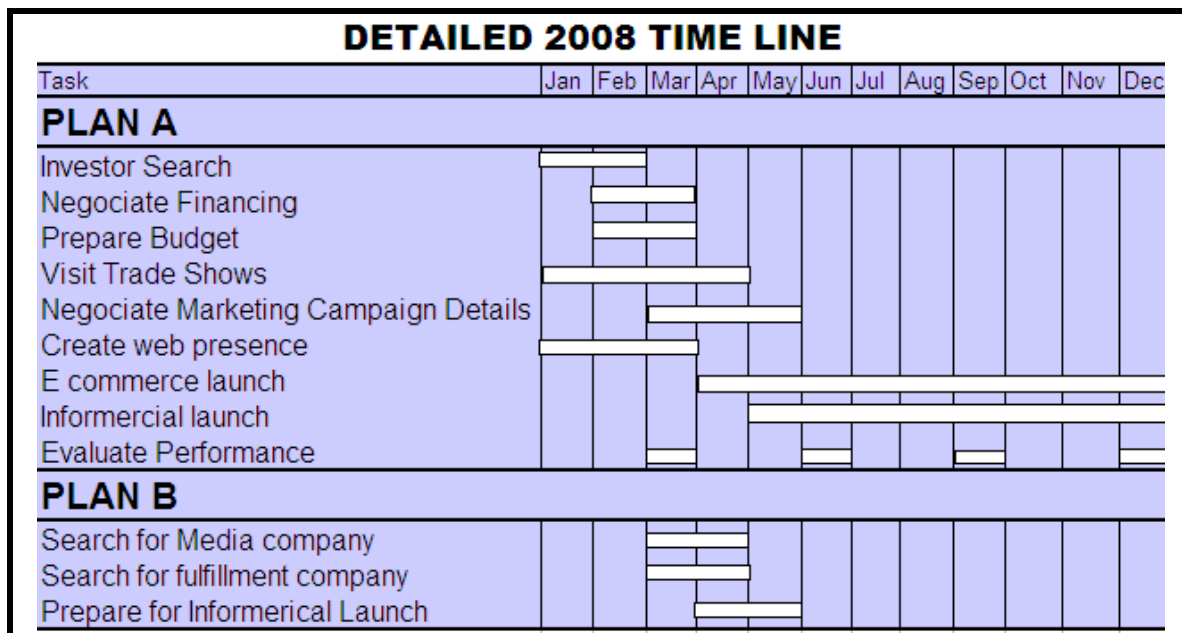
* For detailed explanation on method of target region selection see Appendix 4.

- “Easy Monthly payments”
- In addition a web presence will be established and several methods will be used to drive traffic to it.
 - Affiliate advertising programs place banner and other types of ads on related websites, which drive users to our web site.
 - Search optimization will improve our website’s position in search results, moving us closer to the top of the list.
 - Google adsense & adwords are a very well targeted and efficient means of promoting websites as they deliver advertising to people who are actively seeking related content.
 - Referral programs will allow internet users to benefit by recommending our product to their friends.

10. Implementation & Action Plan

Once strategies are selected and planning has been done it will be time to implement the plan. To aid in implementation specific timetables have been created and details have been expanded upon. There are two major timetables for this project: the detailed short term implementation timeline and the broad product lifecycle timeline.

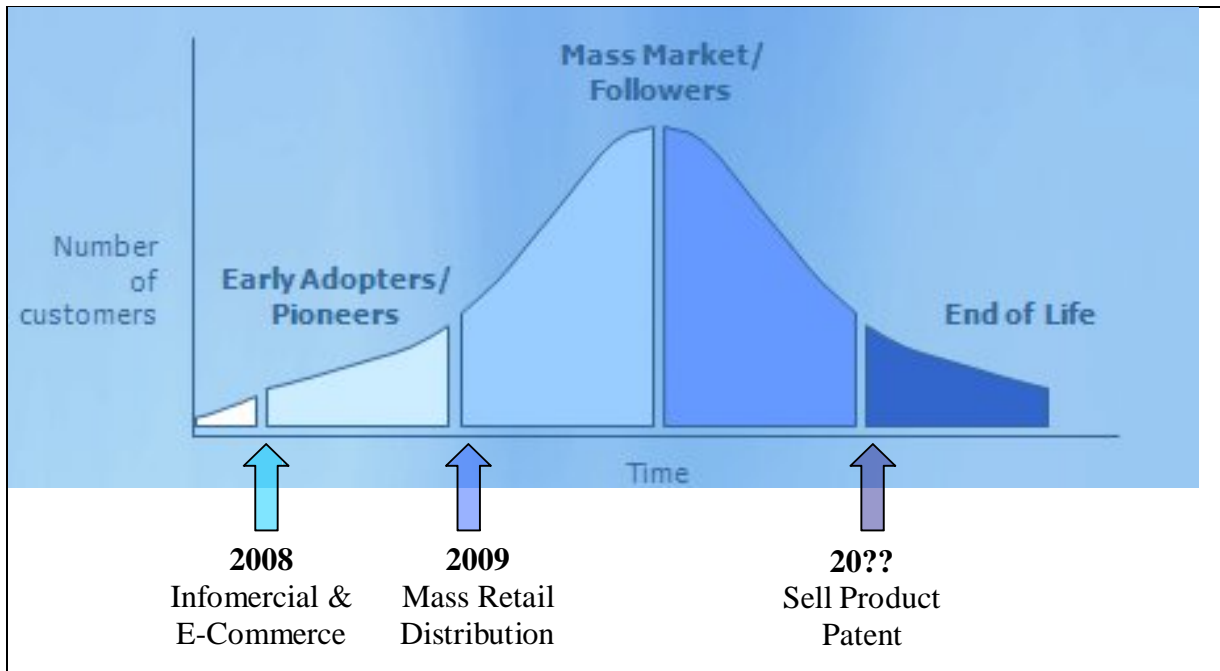
10.1 Implementation Timeline



- The time line represents a snapshot of the plan of action for the year 2008.
- Certain activities need to be performed concurrently; however, some activities cannot be started until others are complete
- **PLAN A** represents the plan to visit trade shows and through networking identify an external organization that will handle the marketing and distribution of the product
- **PLAN B** is the contingency Plan, by the end of February if we are unable to identify a suitable external organization, preparation to handle the marketing and distribution via independent outlets will begin.
 - However effort to find an organization that can handle the entire campaign will not cease until end of April.
 - If by this time the search is unsuccessful independent entities will be hired.

10.2 Product Lifecycle

Strategies have been developed taking into consideration the stage at which the product is in the product life cycle to make maximum and profitability of the product.



- During the **introduction stage** of the product life cycle direct sales via infomercials and E commerce will be used to market the product and Distribution will be selective.
 - Early Adopters and Pioneers will purchase the product at this stage
- By Mid 2009 when the product reaches its **Maturity stage** Mass retail distribution will be used to take advantage of the increase in demand
 - Mass retail distribution will be maintained as the product moves into the **Growth stage** to capitalize on the growing market demand and market share
- As the product moves into **Decline stage**, rather than slowly moving to discontinue the product the strategy is to sell the product patent.

10.3 Tradeshows

Trade shows are an excellent form of networking, which can also be used to gain publicity. It will also enable the identification of an organization that is suitable to handle the marketing and distribution of the product.

We have identified a list of the most prominent annual Trade Shows that would be an ideal venue to achieve our objectives.

NAME - Metropolitan Lawn and Garden Show

DATE – Feb 8th 2008- Feb 8th 2008

DESCRIPTION - The Metropolitan Lawn & Garden Show is Kansas City's premier consumer Show dedicated to the green industry. Products and services exhibited.

Each year over 30,000 consumers attend the Metropolitan Lawn & Garden Show to shop for the latest products and services for their gardens and outdoor lifestyles.

EVENT VENUE - Royal Center (Kemper Arena) 1800 Genessee Street Kansas City, MO 64102

CONTACT - Pat Riha Productions
4049 Pennsylvania, #205
Kansas City, MO 64111

NAME - National Hardware Show

DATE – May 6th 2008 –May 8th 2008

DESCRIPTION – The manufacturers that exhibit at the National Hardware Show and Lawn & Garden World are represented in the following areas. Hardware & Tools, House wares, Lawn & Garden, Paint & Home Décor, Electrical & Plumbing and Global hardware Expo. National Hardware Show® and Lawn & Garden World® attendees include CEOs, presidents, vice presidents, owners, partners, buyers, operations, logistics, merchandising, and marketing professionals from retailers, wholesalers & distributors and importers & exporters. Retailers are represented from home centers, mass, specialty, grocers, chain drug stores, wholesaler clubs and pro dealers.

EVENT VENUE – Las Vegas Convention Center

CONTACT - Phone 888-425-9377 (Toll-Free),
Email -inquiry@hardware.reedexpo.com

NAME - National Lawn & Garden Show (NLGS 2008)

DATE – June 10th 2008 –June 12th 2008

DESCRIPTION – National Lawn & Garden Show (NLGS 2008) is a B2B international event open to professional merchandisers in the lawn & garden industry Retail Chains, Department Stores, Big Box Stores, Wholesale Distributors, Buying Groups/Coops, Catalogue and Direct Mail, Television Home Shopping, Internet Web Sites, Multi-Unit Independent Garden Centers, Farm & Fleet Stores, Liquidators are the target visitors. The majority of NLGS exhibitors are Lawn & Garden, Water Garden and Pet manufacturers from the USA. Canadian manufacturers are prevalent and exhibitors from Asia, Australia, Europe and Mexico frequent the event.

EVENT VENUE – Chicago, IL - Location: TBA

CONTACT - 1690, Roberts Blvd NW Suite 111,
Kennesaw, United States Of America.
Tel: +(1)-(678)-2853976
Fax: +(1)-(678)-2857469
<http://www.nlgshow.com>

10.4 The Pitch

Once the appropriate Investor or Innovation Seeking Organization has been identified an accurate representation needs to be made of the value proposition. It is important to keep them from being attracted elsewhere. Having the appropriate pitch is the key to persuasion

The Following is a 60 second pitch created for Mr. Daniel Chang, it is geared towards investors.

- **Introduction**
 - Water Shortages are leading to massive water crisis around the globe
 - Growing trends of drought are making consumers nervous and environmentally conscious
 - I have a multi-purpose device that not only conserves water but also prevents consumers from suffering water damage to their property

- **The Device**
 - My device, which is called LeakBuster™, is a brand new innovation that works on the sprinkler system. Once hooked up to the sprinkler timer and water valve the device begins to analyze the water pressure of the watering system. With its built in memory chip the device recalls the normal range of the watering system.
 - Once a leak occurs and alters the pressurization LeakBuster™ automatically turns off the water system and warns the homeowner of the problem.
 - This device has three key benefits:
 - It is easy to install and use so it is **convenient**
 - Saving money on water bills and prevented property damage makes it **economical**
 - And of course it conserves water which makes the device **environmentally friendly**
 - With its practical and beneficial use the device's potential customer base is very large. Including the mass market consumer, the government, and private enterprises.
 - A real need for this product exists in the market and the next step is to intensify and clarify this need.

- **Wrap-Up**
 - There is a need for innovative water conservation devices
 - This need has not been fulfilled by existing products and services

- LeakBuster™ is an award winning and unique product which can fill this gap
- With a big enough push this product can capture and maintain a large market share, if acted upon quickly.
- If implemented correctly not only will this product be a financial success, but it paves the way for future product line extensions.

Appendices

APPENDIX 1 – Name Formation

Product Name Formation

This section contains a list of 30 possible names for the product.

1. Leak Safety	11. <u>Leak Be Gone</u>	21. No More Leaks
2. Lawn Guardian	12. Water Saver	22. Leak Stopper
3. <u>Leak Guardian</u>	13. LeakBuster	23. Never Leak
4. Water Protector	14. <u>Forget it Leaks</u>	24. System Sound
5. Water Analyzer	15. Never Worry	25. <u>Water Shut Off</u>
6. <u>No more Puddles</u>	16. Lawn Protector	26. Leak Stopper
7. System Analyzer	17. Leaves no Puddles	27. Stop-A-Leak
8. Water 4 sure	18. <u>Puddle Annihilator</u>	28. Strike Out Leaks
9. Leak Dispeller	19. <u>Water System Controller</u>	29. Leak Detector
10. <u>Water Loss Preventer</u>	20. Garden Protector	30. <u>Sprinkler Security</u>

After evaluating and weighing the possible names we have narrowed down the search to 10 possibilities, each provided with a pro/con summary.

Names	Pros	Cons
Leak Be Gone	Funny and catchy Name rolls off the tongue	No close association with sprinkler system
Forget it Leaks	Very Comical Rolls off the tongue	Consumers might not consider name serious
LeakBuster	Identifies purpose of product. Catchy name	Does not tell where product is used
Leak Guardian	Provides a security and safe feel	Does not specify what product does
No more Puddles	Catchy name Provides clear mental image	Does not specify what product does Weak association with product benefits
Water Loss Preventer	Can be specially tailored to environmentalist consumers	Does not state how the product achieves water loss prevention
Puddle Annihilator	Gives off very strong image	Might not portray positive characteristics Might be for inside or outside the house
Water Shut Off	Function plainly stated	Too general in description Does not product interest
Water System Controller	Describes basic usage of product Complete description of product	Too wordy and scientific Name can easily become forgotten Sounds more like a description
Sprinkler Security	Describes what product does in a clever way Provides image inside customers mind	

With these 10 names we conducted interviews with average consumers to see how the product is perceived. Through this process we narrowed the choices down between **LeakBuster™** and **Leak Guardian**. From these two options we ultimately recommend the name **LeakBuster™**.

The reason for choosing **LeakBuster™** over **Leak Guardian** is that the word **Buster** has a more aggressive and active connotation. This conjures the image that the product will be constantly working and trying to bust leaks. **Guardian** on the other hand has a more passive connotation. It conjures the image of the product just sitting there not doing anything until there is a problem.

APPENDIX 2 – Situation Graphs

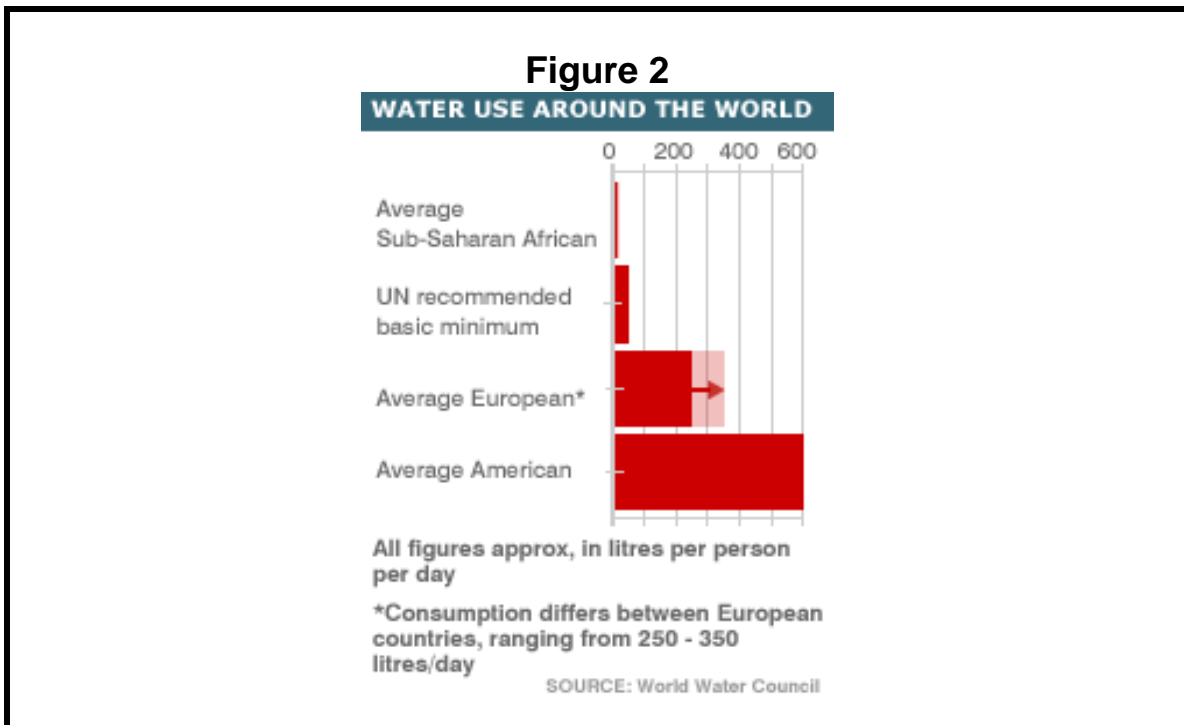
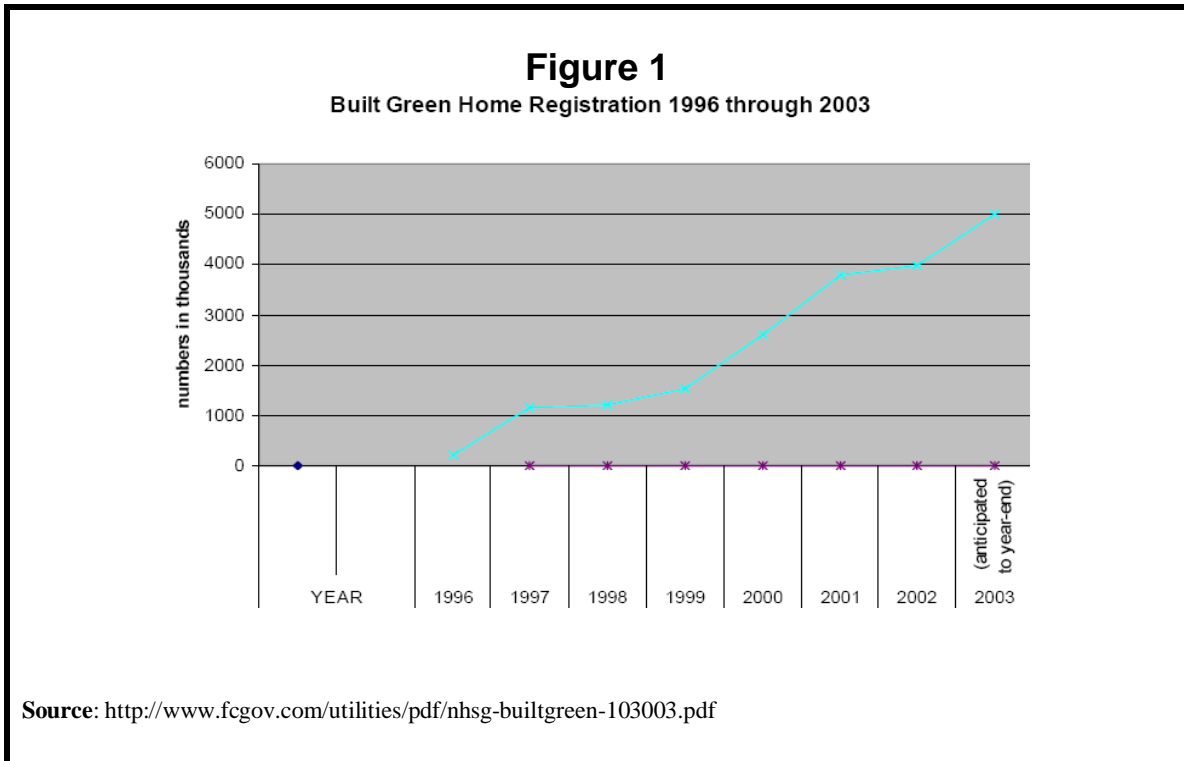
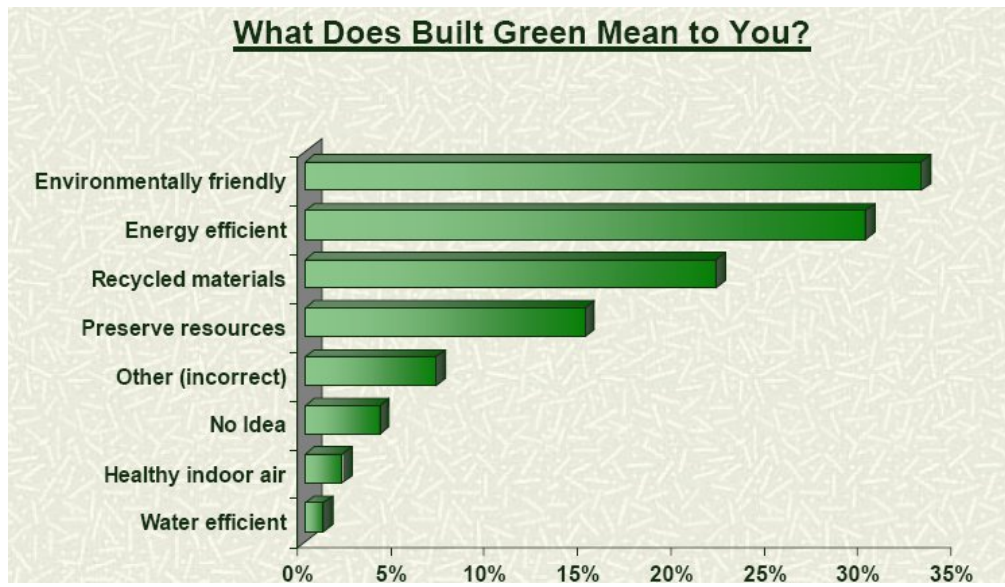


Figure 3



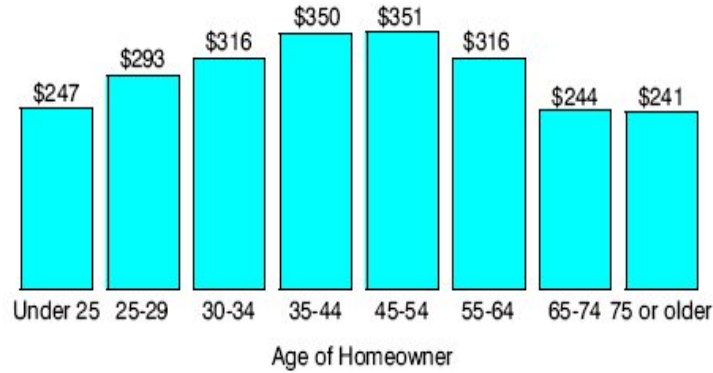
Source: <http://www.fcgov.com/utilities/pdf/nhsg-builtgreen-103003.pdf>

Figure 4
US Landscaping Services By Year

Year	<u>Firms by employment size of enterprise</u>				<u>Paid employees by employment size of enterprise</u>			
	Total	20 +	100 +	500 +	Total	20 +	100 +	500 +
2004	81,790	5.0%	0.5%	0.1%	497,403	55.1%	27.9%	17.1%
2003	76,783	4.9%	0.5%	0.1%	455,978	54.4%	27.8%	17.0%
2002	72,975	4.5%	0.4%	0.1%	423,474	54.1%	29.1%	19.6%
2001	71,539	4.9%	0.4%	0.1%	446,111	53.2%	27.3%	17.8%
2000	66,331	5.0%	0.4%	0.1%	415,873	51.3%	25.2%	15.9%
1999	64,683	4.6%	0.4%	0.1%	393,575	52.7%	27.9%	18.7%
1998	64,584	4.2%	0.4%	0.1%	363,906	51.0%	26.6%	17.9%

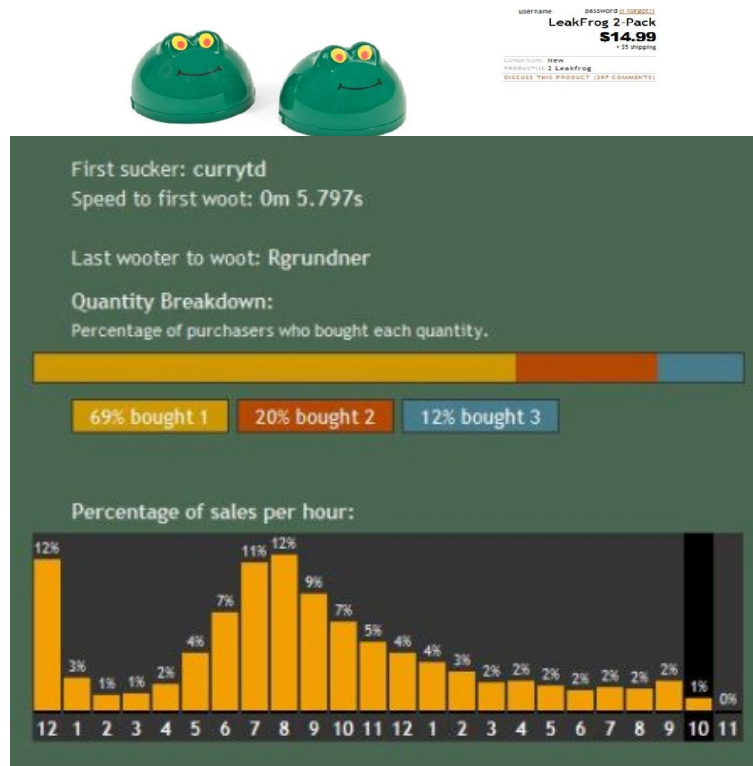
Source: <http://www.census.gov/epcd/susb/2004/us/US56173.HTM>

Figure 5
Home Maintenance Spending Peaks
Among Middle Aged Homeowners



Source: http://www.census.gov/apspd/www/statbrief/sb94_7.pdf

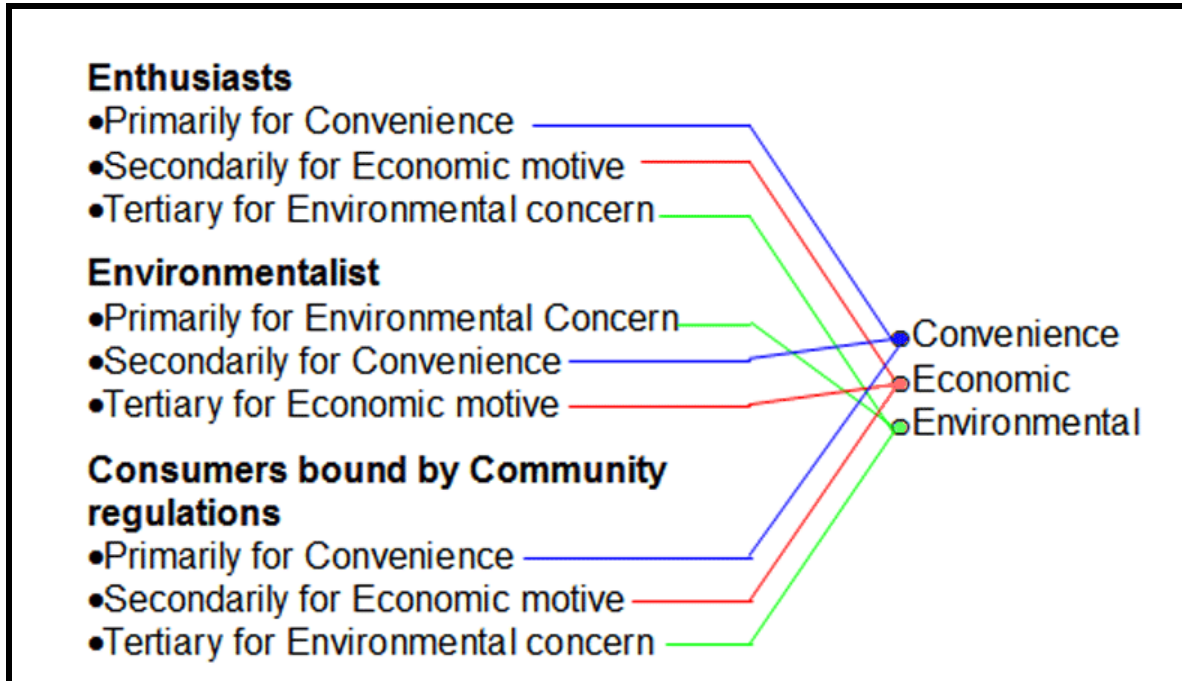
Figure 6
Per Hour Sales of Leak Frog at www.woot.com



Source: <http://www.woot.com/Forums/ViewPost.aspx?PostID=1751245&count=407>

APPENDIX 3 – Benefit Analysis

Detailed Analysis of the sequence of benefits for each target segment



- **Enthusiast & Consumers bound by community regulations**
 - Are individuals who would use LeakBuster™ **primarily for convenience**
 - Their main aim is to make sure their grass remains green and well maintained
 - They would choose this product because it will not only inform the home owner about the leak but also shut off the leak, which is an added benefit no other product provides
 - **Secondarily** they would use is for the **Economic** motives
 - To save on wasted water bills
 - As well as any costs they would incur from damages that leaks can cause.
 - **Tertiary** would be their **Environmental** concerns
 - These individuals do care about the environment but not enough to purchase the product purely for this benefit
 - They would need other benefits to motivate them.
- **Environmentalists** on the other hand are motivated enough to purchase this product purely for its environmental benefits.

- **Conserving water** is a big enough reason and a **significant benefit to these individuals**.
 - Some environmentalists would not be concerned about the other benefits as long as it helps them promote their cause they would be satisfied
- **Secondarily** they would benefit from the **convenience**.
- **Tertiary** they would feel they are **saving money**.

APPENDIX 4 – Target Region Analysis

In order to effectively implement the recommended strategy it is important to identify the best potential regions. To do this several factors were taken into consideration. These factors were: Environmental conditions (drought), % of homes occupied by homeowners, population, income brackets, median income, age brackets.

After looking at the drought conditions across the United States both the south west and south eastern* regions were identified as having drought problems. From this we choose to look further into the south west, specifically southern California.**

After identifying southern California as the most appropriate region the search was narrowed to the county level. From here demographic statistics were used to choose the best regions. From here only counties where at least 50% of homes were occupied by homeowners were chosen, as homeowners have been identified in our report as being more likely to purchase LeakBuster™.

From here we had a list of 13 counties which met the first two criteria, were in the drought region and had over 50% homeowner occupied homes.

- | | |
|--------------------|----------------------------|
| 1. Alameda County | 7. Riverside County |
| 2. Imperial County | 8. San Bernardino County |
| 3. Kern County | 9. San Diego County |
| 4. Kings County | 10. San Luis Obispo County |
| 5. Monterey County | 11. Santa Barbara County |
| 6. Orange County | 12. Tulare County |
| | 13. Ventura County |

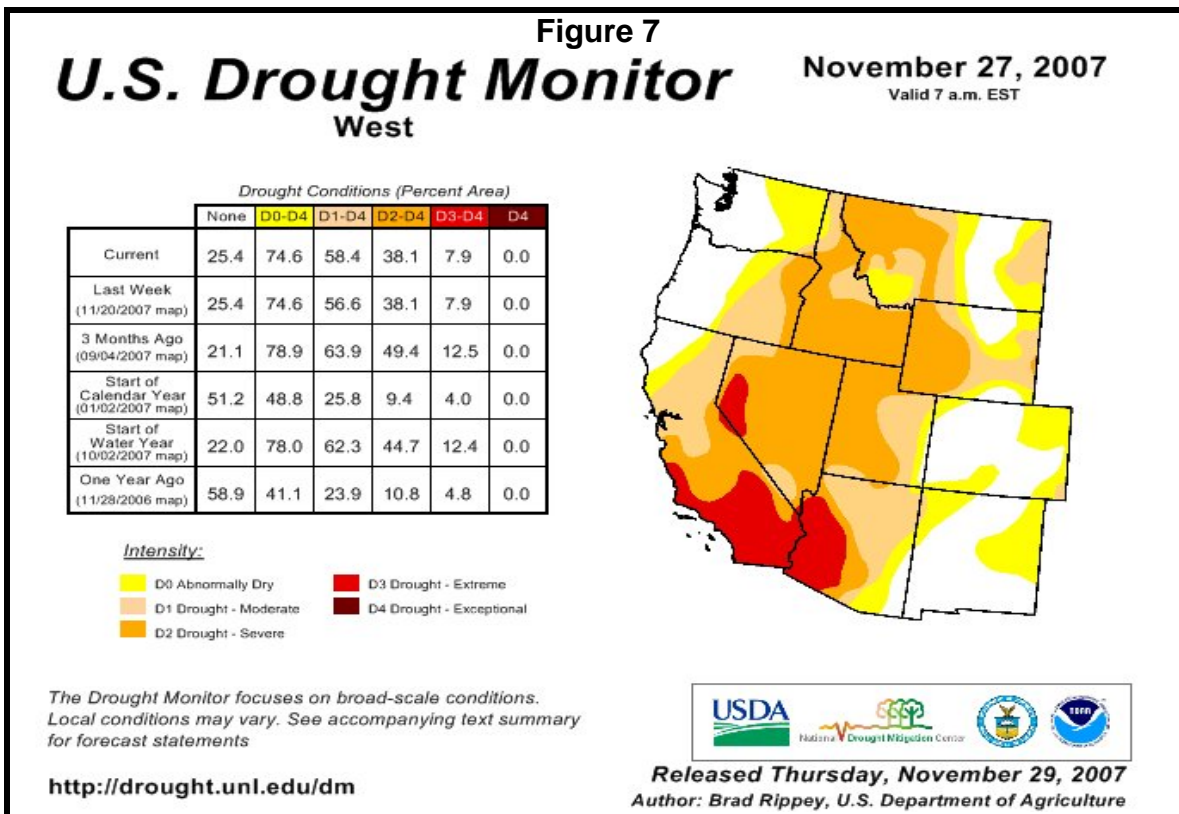
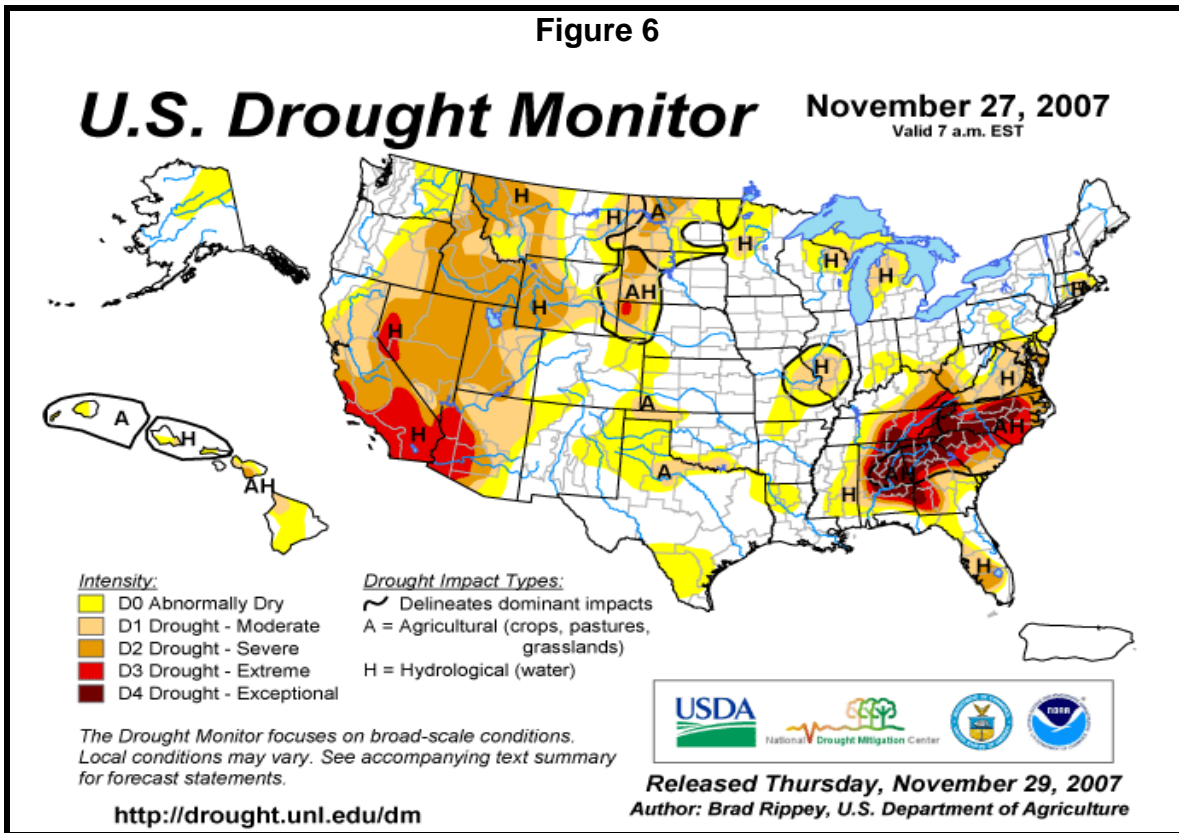
Finally these 13 regions were compared on the basis of population, income brackets, median income, and age brackets***. Based on these factors the final regions chosen were:

1. San Bernardino
2. San Diego
3. Riverside
4. Ventura
5. Orange County

* The decision to avoid the south eastern region at this time is due to current political issues surrounding the use of water for sprinkler systems.

** see figure 6,7,8 for drought map

*** see figures 10-14



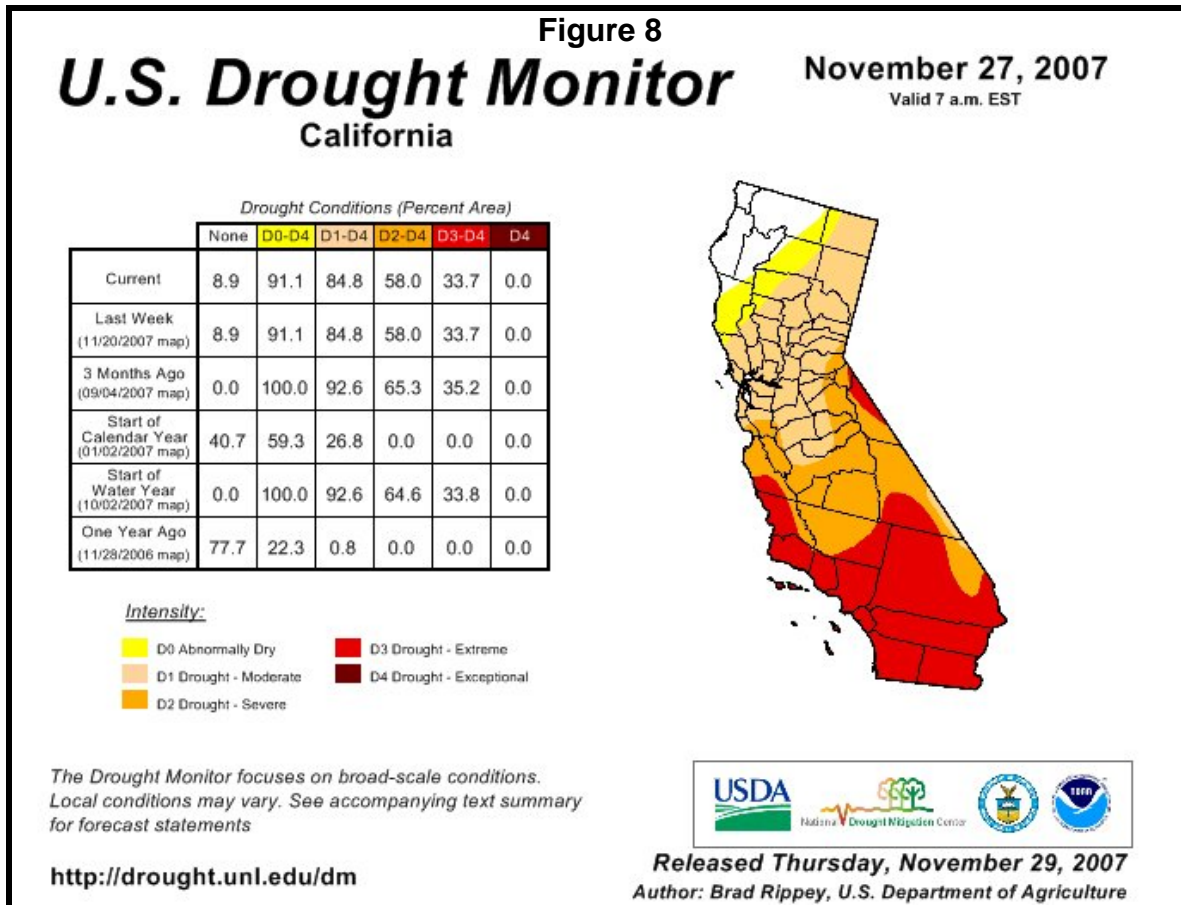


Figure 9



Figure 10			Figure 11		
% of owner occupied homes			Population 2006		
California	58.4	+/-0.2	California	36,457,549	
COUNTY			COUNTY		
El Dorado County	77.8	+/-2.5	Los Angeles County	9,948,081	
Nevada County	74	+/-3.9	Orange County	3,002,048	
Placer County	72.4	+/-2.1	San Diego County	2,941,454	
Contra Costa County	72	+/-1.2	Riverside County	2,026,803	
Riverside County	69.2	+/-0.8	San Bernardino County	1,999,332	
Ventura County	68.7	+/-1.4	Santa Clara County	1,731,281	
San Bernardino County	66.4	+/-1.0	Alameda County	1,457,426	
Solano County	65.9	+/-1.9	Sacramento County	1,374,724	
Shasta County	65.6	+/-2.9	Contra Costa County	1,024,319	
Marin County	65	+/-2.3	Fresno County	891,756	
Mendocino County	64.6	+/-3.9	Ventura County	799,720	
Sutter County	64.4	+/-4.1	Kern County	780,117	
Lake County	64.1	+/-5.4	San Francisco County	744,041	
Stanislaus County	64	+/-1.9	San Mateo County	705,499	
Sonoma County	63.9	+/-1.6	San Joaquin County	673,170	
San Mateo County	63.2	+/-1.4	Stanislaus County	512,138	
San Joaquin County	62.9	+/-1.6	Sonoma County	466,891	
Napa County	62.5	+/-3.2	Tulare County	419,909	
Orange County	62.4	+/-0.8	Solano County	411,680	
Kern County	61.9	+/-1.6	Monterey County	410,206	
Sacramento County	61.2	+/-1.1	Santa Barbara County	400,335	
Madera County	61.1	+/-4.5	Placer County	326,242	
Santa Clara County	60.6	+/-1.0	San Luis Obispo County	257,005	
Imperial County	60.2	+/-4.3	Santa Cruz County	249,705	
Butte County	59.9	+/-2.2	Marin County	248,742	
Santa Cruz County	59.9	+/-2.6	Merced County	245,658	
Tulare County	59.6	+/-2.1	Butte County	215,881	
San Luis Obispo County	59.5	+/-2.1	Yolo County	188,085	
San Diego County	57.6	+/-0.7	Shasta County	179,951	
Alameda County	57.4	+/-0.9	El Dorado County	178,066	
Kings County	56.3	+/-3.9	Imperial County	160,301	
Monterey County	55.6	+/-2.0	Madera County	146,345	
Yuba County	55.2	+/-4.8	Kings County	146,153	
Fresno County	55	+/-1.3	Napa County	133,522	
Yolo County	54.7	+/-2.2	Humboldt County	128,330	
Humboldt County	54.6	+/-2.9	Nevada County	98,764	
Merced County	53.9	+/-3.2	Sutter County	91,410	
Santa Barbara County	53.3	+/-1.4	Mendocino County	88,109	
Los Angeles County	49.3	+/-0.4	Yuba County	70,396	
San Francisco County	39.3	+/-1.3			

Figure 12
Income By bracket

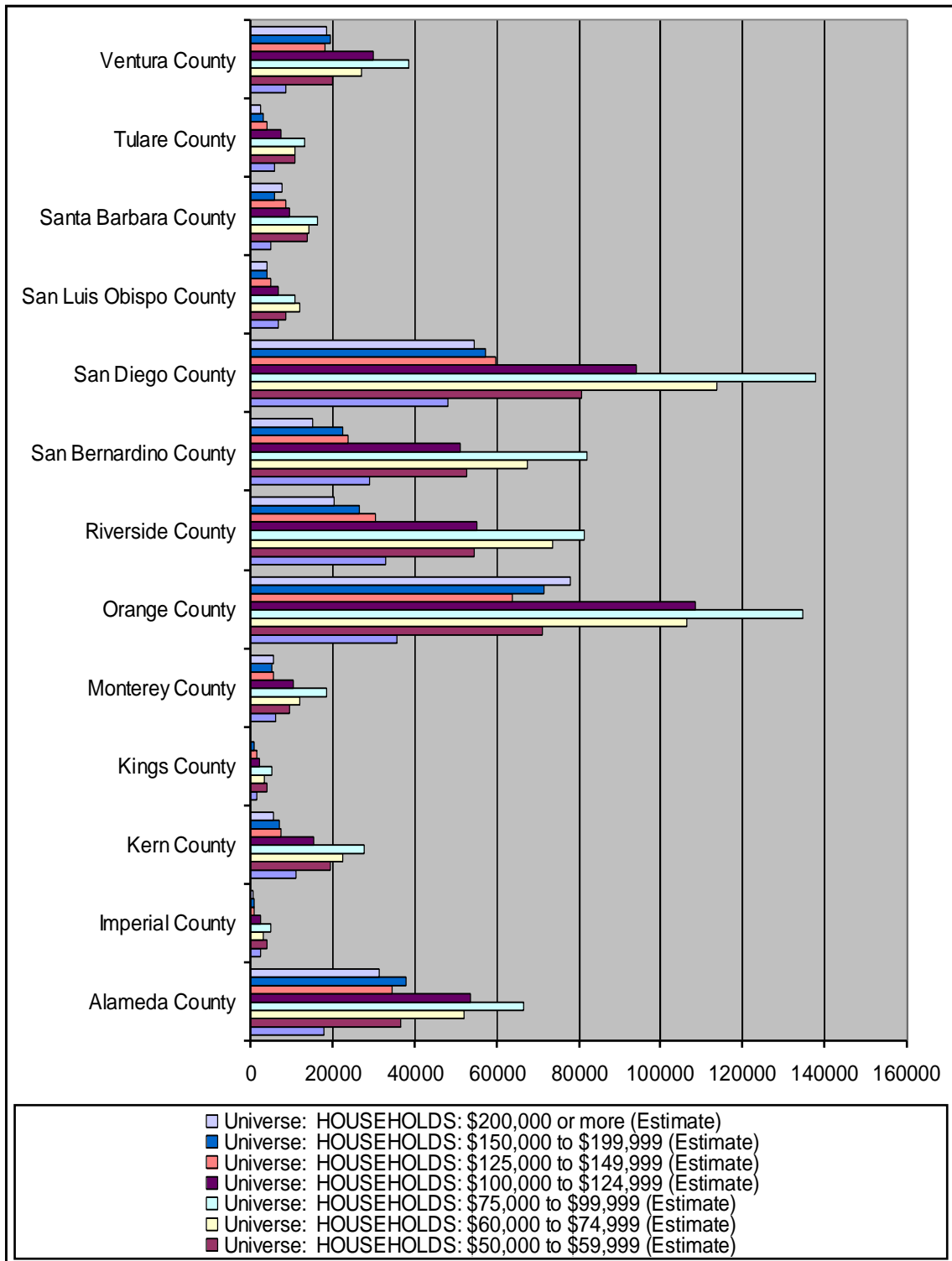
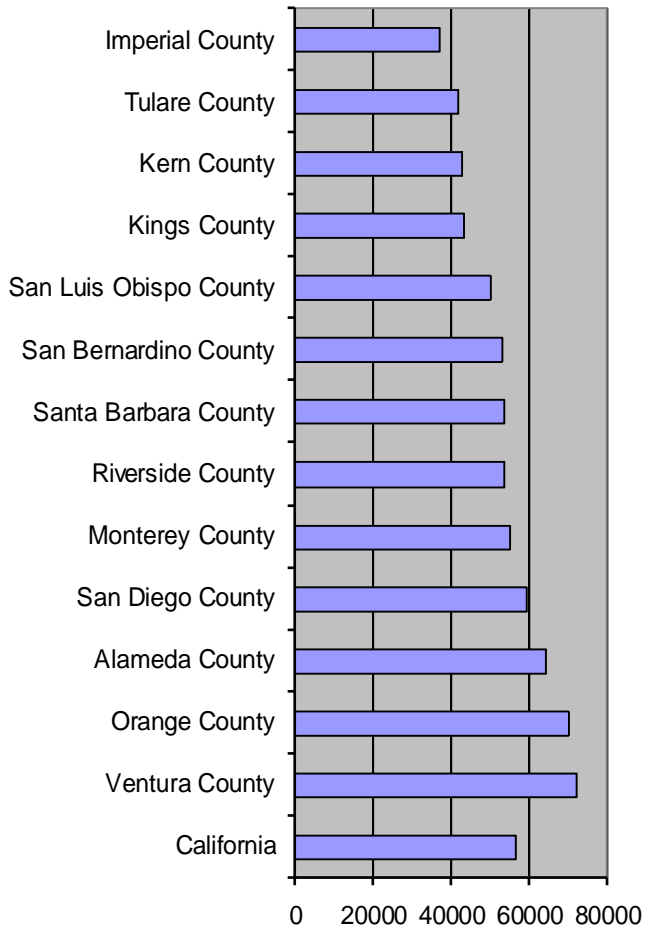


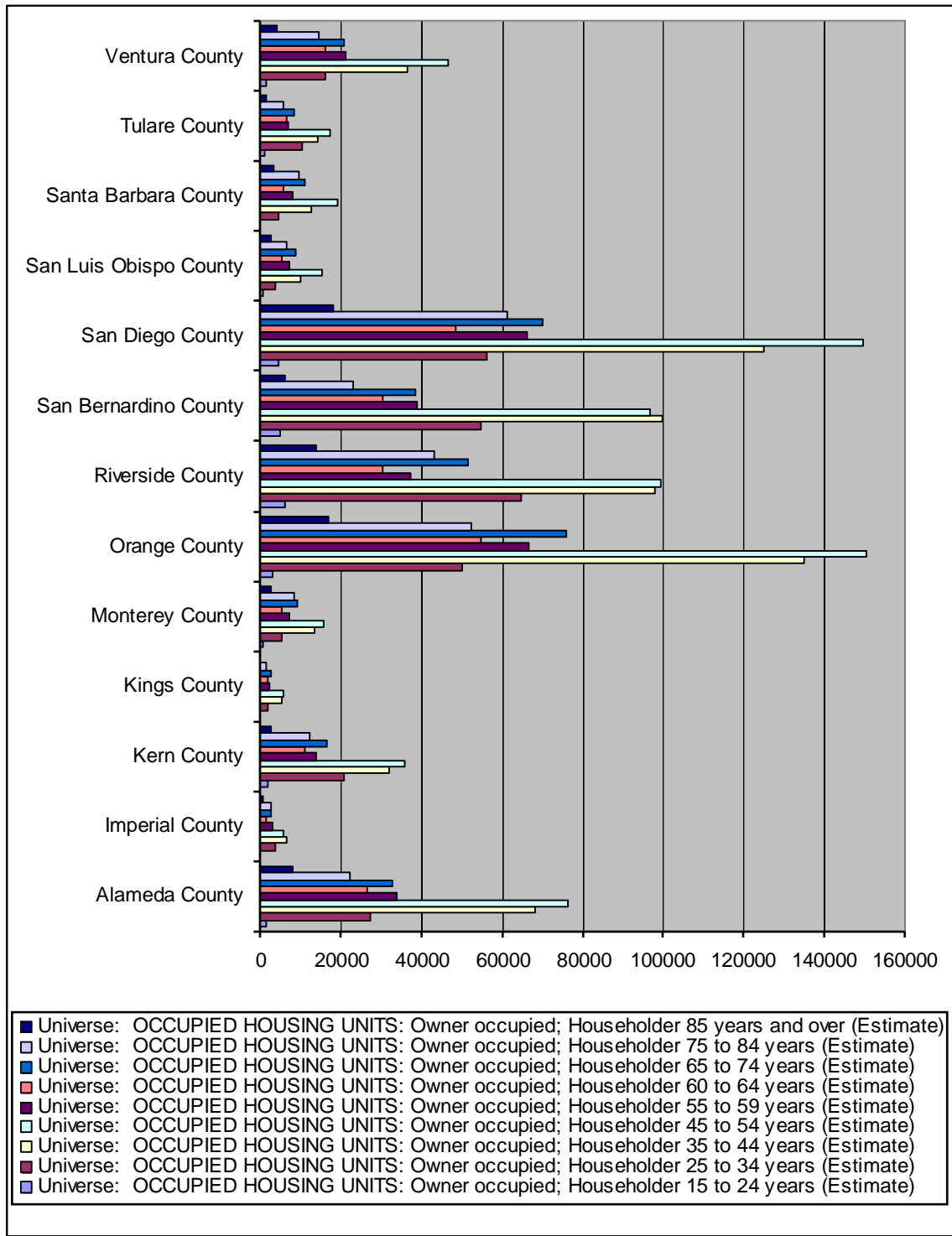
Figure 13

Universe: HOUSEHOLDS: Median household income in the past 12 months (in 2006 inflation-adjusted dollars) (Estimate)



Geography	Median household income in the	Error
California	56645	+/-236
Ventura County	72107	+/-1,436
Orange County	70232	+/-953
Alameda County	64424	+/-1,488
San Diego County	59591	+/-1,284
Monterey County	55045	+/-2,965
Riverside County	53508	+/-1,332
Santa Barbara County	53477	+/-1,795
San Bernardino County	52941	+/-1,095
San Luis Obispo County	50209	+/-2,120
Kings County	43178	+/-4,674
Kern County	43106	+/-1,970
Tulare County	41933	+/-1,949
Imperial County	37086	+/-2,599

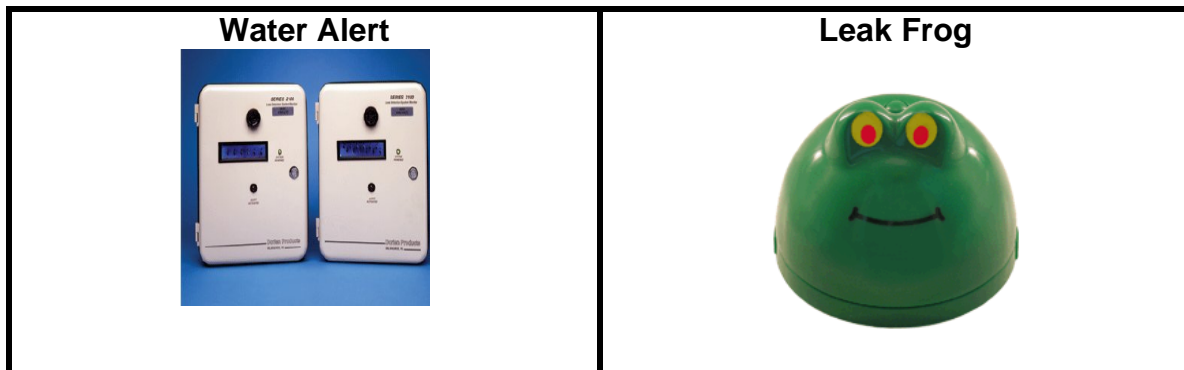
Figure 14
Age by bracket



APPENDIX 5 - Packaging

Since the product is one that will be fixed under ground, priority must be given to the design of the packaging over the design of the product.


- Packaging is of great importance in the final choice the consumer will make, because it directly involves convenience, appeal, information and branding.
- Analysis of competitor products has proven that products that are attractive or have a theme that the consumer can relate to are much more popular
- The **Leak Frog** and **Water Alert** two competitor products that perform the same function however one has a product design that is creative and has fun theme where as the other is dull and boring





- Leak Frog has become extremely popular due to its creative design that appeals to the consumer. Converting a technical product to give it Mass-market appeal is the key.
- Leak Frog was sold recently on www.woot.com and within a few hours it was sold out. (Refer Fig.6 Appendix).
- With the LeakBuster™ we recommend a similar strategy of using a theme, however the theme will be in the packaging as apposed to the product since the product will not be visible after installation
- Using a creative and unique theme packaging will grab the consumer's attention and create interest.


Packaging Options


Packaging can enhance the marketability of a new product. The following are packaging options for the product.

Pros	Cons	Image
Grab's Attention Unique Lawn Theme	Distracts from product Misinterpretation Expensive	

Pros	Cons	Image
Grab's Attention Unique Water Theme	Distracts from product Expensive	

Pros	Cons	Image
<p>Simple Inexpensive Focus on product</p>	<p>Doesn't grab attention Boring</p>	

Pros	Cons	Image
<p>Eco Friendly Theme Grab's attention Unique</p>	<p>Expensive Distracting Misinterpretation</p>	

Pros	Cons	Image
<p>Unique Grab's Attention Content Visible</p>	<p>Bulky Could be Flimsy</p>	

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