

Chapter 6: Goals, Objectives, and Resource Management Strategies

Development of Inyo-Mono IRWM Plan Goals, Objectives, and Resource Management Strategies

In the IRWM planning process, development of goals and objectives is a key step, as they provide a basis for decision-making, guide work efforts, and can be used to evaluate project benefits. Understanding this, the Inyo-Mono RWMG started the discussion by defining a mission and vision to guide the overall effort. Utilizing a



consensus based approach, the RWMG adopted the following mission statement to guide the overall planning effort:

To research, identify, prioritize, and act on regional water issues, and related social and economic issues, so as to protect and enhance our environment and economy. Working together, we create and implement a regional water management plan that complies with applicable policies and regulations and promotes innovative solutions for our region's needs.

To help the diverse communities living within the planning region understand their role in implementing and undertaking this mission, the RWMG adopted the following vision statement:

Our vision is a landscape that is ecologically, socially, and economically resilient. As diverse stakeholders, we identify and work toward our common goals. We achieve a broad-based perspective that benefits our regional ecosystems and human communities by combining our interests, knowledge, expertise and approaches. We strive to have every voice heard within our region and our collective voice heard in the state and nation.

True to this vision, the RWMG has worked hard to solicit input from the varied residents and organizations within the extremely large planning region. To begin the process of soliciting stakeholder participation and input into the development of goals and objectives, staff collected

and reviewed all relevant water supply plans, general plans, resource management plans, and existing watershed planning efforts and developed an initial list of goals and objectives in the summer of 2008. A draft was released at the August 25, 2008, RWMG meeting, and comments on that draft were received from various RWMG participants throughout the month of September. A work group was formed in early 2009 to further refine the work and present back to the RWMG.

The written product of this effort presented water resource objectives and management strategies organized under three strategic goal areas: Watershed Ecosystem Health, Water Resources, and Water and Community. Each goal had a number of specific objectives and management strategies identified. With this initial work in hand, the RWMG undertook an extensive outreach campaign in 2009 and 2010 across the planning region to meet with interested parties and identify and discuss their water related issues and concerns. Based on these meetings with interested landowners and representatives from various Tribes, non-profits, and rural communities, the initial strategic goal areas were confirmed to be appropriate and the objectives and management strategies were clarified and refined. During this time, the RWMG also decided to simplify the presentation of the goals and objectives in order to better align with the identified concerns and with the California Water Plan, Proposition 84 requirements, and the Lahontan Basin Plan. After much discussion and review of feedback received from extensive outreach within the region, the RWMG agreed to drop the goal area statements and simplify the objectives and corresponding resource management strategies. A draft of the revised objectives and strategies was widely distributed to interested parties, including the Board of Supervisors of both Inyo and Mono Counties as well as to all parties that had contributed during the outreach campaign. Incorporating the input received from this round of review, in late 2010, the RWMG adopted the following six regional objectives:

1. Protect, conserve, optimize, and/or augment water supply;
2. Protect, restore, and/or enhance water quality;
3. Provide stewardship of our natural resources;
4. Maintain and/or enhance water, wastewater, and power generation infrastructure efficiency and reliability;
5. Address climate variability and/or reduce greenhouse gas emissions; and
6. Increase participation of small and disadvantaged communities in the IRWM process.

Although six independent objectives have been established to achieve the vision, relationships and synergies exist between the various objectives. For example, by increasing participation of disadvantaged communities in identifying and implementing projects aimed at improving water quality and achieving water supply objectives, the residents will be taking responsibility themselves for helping to meet natural resource stewardship objectives. Thus, integration of planning efforts with agreed upon objectives and strategies is realized within the I-M RWMG.

Overview of the IRWM Plan Objectives and Resource Management Strategies and the Issues they Address

The planning objectives are targeted outcomes that benefit the region. When implementing regional projects, project partners will strive to meet as many objectives as possible while also recognizing that some objectives may not be fully achieved. The objective prioritization process and measurement strategies are discussed in the next section.

The following describe the objectives, their rationale, and corresponding resource management strategies to achieve the objectives that have been developed for the IRWMP.

Objective 1: Protect, conserve, optimize, and/or augment water supply

Water is a highly valued resource in the Inyo-Mono IRWM region. Rivers, streams, lakes, and aquifers supply water for domestic, agricultural, and recreational uses, support abundant wildlife and fisheries, and are an important aesthetic component of the local landscape. Water resources in the region have been heavily impacted over the years by the export of large volumes of water for use outside the planning region, a practice that has been detrimental to local water users and the natural environment within the region. The potential for future export, particularly of groundwater, is a continuing concern.

Water for future development is a concern. While some communities have community water systems, other areas are served by a variety of mutual water companies, small private systems, and wells. Existing water rights are in some cases inadequate for future expansion and additional surface water is becoming impossible to obtain due to concerns about in-stream and water-dependent resources. Inadequate and insufficient data about many groundwater resources hinder projections on meeting future demand from those sources. Potential off-site impacts on natural resources as a result of groundwater extraction are also a concern. In addition, wells for existing development are running dry in some areas; pumping new and deeper wells is expensive. At this time, many areas do not know how much groundwater is available, nor can they assume a constant supply of groundwater in the future.

The availability of water for future development is also affected by new requirements concerning water quality. Existing community water systems that do not meet the standards set by the Lahontan Regional Water Quality Control Board (RWQCB) will have to update their systems. The cost of doing so may inhibit the ability of those systems to provide additional water for future development. In areas that do not currently have community systems, the Lahontan RWQCB will require a community system when a certain level of development is reached. The cost of installing and maintaining a system may preclude additional development in areas which are currently served by wells or small private systems.

To address these water supply concerns, the following resource management strategies have been adopted by the RWMG in order to identify projects aimed at developing a more reliable and diverse water supply portfolio:

- 1.1. Improve water supply reliability;
- 1.2. Improve system flexibility and efficiency;
- 1.3. Support compliance with current and future state and federal water supply standards;
- 1.4. Address local water supply issues through various techniques, including, but not limited to: groundwater recharge projects, conjunctive use of water supplies, water recycling, water conservation, water transfers, and precipitation enhancement;
- 1.5. Advance understanding of regional groundwater issues (including monitoring) and provide for solutions;
- 1.6. Optimize existing storage capacity;
- 1.7. Conserve and adapt water uses to future conditions;
- 1.8. Capture and manage runoff;
- 1.9. Incorporate and implement low-impact development design features, techniques, and practices to reduce water demand; and
- 1.10. Support appropriate recreational activities.

Objective 2: Protect, restore, and/or enhance water quality

A primary goal of the IRWM Plan is to provide high quality drinking water that meets current and future federal and state drinking water standards throughout the region. Clean, reliable, and safe drinking water is essential to public health and the economic well being of the region. The region's IRWM water quality objectives are consistent with the intent of Safe Drinking Water Act goals to protect drinking water "from source to tap" and broader Clean Water Act goals for clean, fishable, and swimmable waters.

The region's water quality related issues vary and certain areas are affected by outdated and aging water related infrastructure, land management practices, sewage disposal, construction practices, solid waste disposal, road maintenance techniques, naturally occurring minerals and ores, etc. There is a concern in some areas about the potential impacts of increased stormwater runoff resulting from increased development. Potential impacts in some areas include increased streamflows, siltation, erosion, loss of aquatic habitat, and impacts to roads and agricultural areas. In other areas, particularly in the Indian Wells Valley, salt accumulation creates issues for both human water consumption and agricultural concerns.

At present, the water quality of the snowmelt runoff is generally excellent, but degraded in some reaches and threatened throughout the entire unit due to non-point source loading from increased recreational use, grazing, development, and on-site septic systems. The Owens hydrologic unit (Mammoth Creek, Crowley Lake, and Pleasant Valley Reservoir) is an impaired waterbody identified in Table 3 of the 2010 CWA 319(h) NPS Grant Program Guidelines. Although Total Mean Daily Loads (TMDLs) have not been established for the Owens hydrologic unit, constituents of concern include: mercury, dissolved oxygen, ammonia, and organic enrichment.

In other areas, aquifers of poorer-quality water underlie the high-quality aquifer currently being pumped. As groundwater levels continue to decline, underlying poorer-quality water may begin to mix with high-quality water, resulting in deterioration of the quality of the water supply. In many locations, portions of the aquifer have levels of arsenic and uranium higher than the current primary drinking water maximum contaminant limit (MCL), requiring treatment prior to domestic use. Of particular concern are areas in north Mono County where drinking fountains at public schools are shut off due to exceedingly high levels of arsenic and uranium, and in southeastern Inyo County, where very limited and poor-quality potable water is available. In other areas, nitrogen and phosphate levels are elevated.

In response to these identified issues, the following resource management strategies were established toward meeting the goal of improving water quality:

- 2.1. Improve the quality of urban runoff, storm water, and wastewater;
- 2.2. Reduce erosion and sedimentation;
- 2.3. Protect public and aquatic ecosystem health;
- 2.4. Match water quality to water use; and
- 2.5. Support appropriate recreational activities.

Objective 3: Provide stewardship of our natural resources

Many cross-cutting issues overlap with and link to the objectives for water quality and water supply. These cross-cutting issues serve as a reminder that the availability of high quality water is not only critical to the success of the human population, but also to the ultimate survival of plant and wildlife populations dependent upon healthy ecosystems.

The protection and enhancement of natural habitats is a critical element in preserving and restoring the long-term existence of regional flora and fauna. Riparian woodlands, wetlands, migration corridors, and wintering and summering grounds are recognized as critical, highly localized wildlife habitat. Increased recreational use in the region and increased development, particularly in areas outside of existing community areas, creates potential impacts to the long-term sustainability of fish and wildlife populations and plant communities through degradation of resources and increased conflicts between wildlife and humans. Invasive species can alter natural ecosystems by replacing native plant and animal communities, resulting in native species being negatively affected. As an example, introduced trout have displaced native Lahontan cutthroat trout and amphibians in many parts of the northern watersheds of the region.

Across the region, interested parties stressed the value and importance of the natural environment for a variety of reasons, including, but not limited to, the health of native flora and fauna, providing a wide variety of recreation interests, and supporting a number of agricultural and grazing operations. The region is home to a variety of unique species of fish, wildlife and aquatic invertebrates, including a number of threatened and endangered plants and animals – for example, endangered Owens tui chub. Hot Creek and the Upper Owens River are two of the most productive and popular trout fisheries in California and, as a result, provide for world-class fishing which supports the local economy.

The following resource management strategies were established toward meeting the objective of increasing the understanding of the natural resources in order to provide increased and appropriate stewardship within the planning region:

- 3.1. Protect, restore, and/or enhance natural processes, habitats, and/or threatened and endangered species;
- 3.2. Protect, restore, and/or enhance ecosystems such as upland forests, meadows, wetlands, and other sensitive habitats dependent on surface/shallow water supply;
- 3.3. Enhance recreational and/or educational opportunities;
- 3.4. Identify, develop, and implement efforts to better control invasive species; and
- 3.5. Assess ecosystem health of watersheds in the region.

Objective 4: Maintain and enhance water, wastewater, and power generation infrastructure efficiency and reliability

Throughout the region, and in disadvantaged communities in particular, outdated water storage and conveyance equipment, lack of back-up generators, and/or antiquated piping present a serious challenge to providing safe and reliable water supplies for both human consumption and fire protection. Compounding this situation is the fact that many of the antiquated water systems are in areas that experience extremely cold winters with significant snowfall and, thus, the period of time during the year within which any construction and/or maintenance can occur is extremely limited. Moreover, many of these same areas do not have the institutional capacity to effectively manage their water related infrastructure and regulatory compliance matters.

Since many of the areas within the region rely on very old and inefficient equipment and motors to drive their groundwater pumping and water conveyance, a significant amount of energy is currently being wasted. Additionally, a number of energy intensive power generating facilities as well as significant water conveyance structures exist within the region that could be retrofitted to improve their efficiency and reduce greenhouse gas emissions while also improving reliability. As such, the following resource management strategies were established toward meeting the objective of maintaining and enhancing water related treatment and power generation efficiency and reliability:

- 4.1. Systematically and strategically rehabilitate and replace aging water and wastewater delivery and/or wastewater treatment facilities in rural communities, including tribal lands;
- 4.2. Ensure fire protection capacity;
- 4.3. Improve energy efficiency of water systems and uses; and
- 4.4. Promote use of water efficiency in power generating facilities.

Objective 5: Address climate variability and reduce greenhouse gas emissions

As stated in the CA Water Plan 2009, climate change models suggest that the North Lahontan region will generally receive less annual precipitation, with more precipitation falling as rain.

Scenarios indicate a higher reliance on groundwater to maintain current levels of agricultural development and to accommodate population growth. In the Southern Lahontan Region, reliance on groundwater may also increase due to reductions in local surface flows and snowpack quantity. Drier-than-average conditions may result in an increase in the frequency of fires and area consumed as well. Primary and secondary impacts caused by fires include damage to an existing watershed, changes in surface runoff and percolation, and the economic impacts on the area. Additionally, forthcoming climate change legislation may spur increased local development of alternative energy production facilities, which may have their own water demands.

In order to prepare the region for increasing climate variability and to help reduce greenhouse gas emissions, the following resource management strategies have been established:

- 5.1. Increase understanding of water related greenhouse gas emissions;
- 5.2. Manage and modify water systems to respond to increasing climate variability; and
- 5.3. Use cleaner energy sources to move and treat water.

Objective 6: Increase participation of small and disadvantaged communities in IRWM process

The RWMG's Mission emphasizes the need for a consensus approach in water resources management within the Region, and the Vision emphasizes the need for a stakeholder-driven process. Maximizing stakeholder and community involvement and stewardship is essential to the success of the IRWM Plan.

Stakeholder involvement is a vital part of the IRWM Plan process as a means to identify and address public interests and perceptions, address stakeholder questions and issues, ensure that the Plan and any proposed solutions are in keeping with public interests, and provide for public ownership and support of the proposed solutions. Stakeholder involvement may assist in identifying areas where increased public education and outreach is required and help focus the Plan toward the public's key water management issues and potential solutions. Public education and outreach at community events, workshops and school-based educational programs are required to promote the identification and understanding of the Region's resources. Public education also increases:

- awareness of water management opportunities,
- stakeholder input of water management ideas, and opportunities,
- public activism, and
- public and community ownership of both problems and solutions.

As discussed previously, the IRWMP has been developed in an interactive, open and transparent process in which the concerns and interests of different stakeholders have been taken into consideration. Continued and increased stakeholder interaction during subsequent

phases of the IRWMP, including implementation of projects, has been established as an integral component of the overall vision with the following specific strategies:

- 6.1. Engage regional communities in collaborative water and natural resource related efforts; and
- 6.2. Provide assistance for tribal and DAC consultation, collaboration, and access to funding for water programs and projects.

Prioritization of the IRWM Plan Objectives and Resource Management Strategies

While the Inyo-Mono RWMG has not prioritized its objectives and corresponding resource management strategies at this time, there is explicit support for Round 1 Implementation projects that benefit disadvantaged communities and Tribes. The RWMG recognizes that by pursuing a wide range of projects that support the six independent objectives, synergies between the various objectives will be enhanced and the end result will be in pursuit of the overarching mission. Since this plan represents the region’s first IRWM effort, the RWMG supports project that advance of any of the stated objectives. When implementing regional projects, project proponents will strive to meet and integrate as many objectives as possible while also recognizing that some objectives may not be fully achieved. Furthermore, additional objectives may be considered in future revisions of the IRWM Plan. For example, while the RWMG has discussed flood control and management as a priority issue for the region, the Group did not feel it should be a priority objective for this round of funding. It may be considered in future rounds.

Measurement of the IRWM Plan Objectives and Resource Management Strategies

The RWMG understands and appreciates the need for a method to evaluate the effectiveness of the IRWM Plan. While some objectives and resource management strategies lend themselves to more easily measured metrics, others present more of a challenge. As such, the RWMG has developed the following initial list of metrics for each of the identified resource management strategies. During implementation of Round 1 Implementation projects, the RWMG will revisit these metrics and develop refinements based on what is learned from the various projects.

Table 6-1. Inyo-Mono IRWM objectives and resource management strategies and the metrics with which they will be evaluated.

Objective / Resource Management Strategy	Measurement
<i>Objective 1: Protect, conserve, optimize, and/or augment water supply</i>	
1.1 Improve water supply reliability	Reduce the number of water distribution systems that are unable to attain or distribute a reliable potable water supply.

Objective / Resource Management Strategy	Measurement
1.2 Improve system flexibility and/or efficiency	Reduce the amount of water lost and/or increase in the number of uses resulting from specific water sources
1.3 Support compliance with current and future state and/or federal water supply standards	Reduce the number of water supply standards compliance violations
1.4 Address local water supply issues through various techniques, including, but not limited to: groundwater recharge projects, conjunctive use of water supplies, water recycling, water conservation, water transfers, and precipitation enhancement	Number of water supply projects successfully implemented
1.5 Advance understanding of regional groundwater issues (including monitoring) and provide for solutions	Number of studies and/or monitoring efforts being undertaken
1.6 Optimize existing storage capacity	Increase in volume of water stored
1.7 Conserve and/or adapt water uses to future conditions	Reduce amount of water used
1.8 Capture and manage runoff	Reduce amount of unmanaged runoff entering natural waterways
1.9 Incorporate and/or implement low-impact development design features, techniques, and/or practices to reduce water demand	Reduce amount of water used
1.10 Support appropriate recreational activities	Reduction in number of days where recreational activity is curtailed or diminished
Objective 2: Protect, restore, and/or enhance water quality	
2.1 Support compliance with current and future state and/or federal water quality standards	Reduction in number of violations of various standards
2.2 Improve the quality of urban runoff, storm water, and/or wastewater	Improvements in water quality sampling from project site
2.3 Reduce erosion and sedimentation	Reduction in volume of sediment and/or erosion from project site
2.4 Protect public and/or aquatic ecosystem health	Improvements in water quality sampling
2.5 Match water quality to water use	Identification and maintenance of appropriate water quality for specific use
2.6 Support appropriate recreational activities	Reduction in number of days where recreational activity is curtailed or diminished

Objective / Resource Management Strategy	Measurement
Objective 3: Provide stewardship of our natural resources	
3.1 Protect, restore, and/or enhance natural processes, habitats, and/or threatened and endangered species	Number of acres of project site and/or habitat being protected, restored, or enhanced
3.2 Protect, restore, and/or enhance ecosystems such as upland forests and meadows dependent on surface/shallow water supply	Number of acres of project site and/or habitat being protected, restored, or enhanced
3.3 Enhance recreational and/or educational opportunities	Number of days where recreational and/or educational activity is provided
3.4 Identify, develop, and implement efforts to better control invasive species	Number of acres or sites where invasive species are removed
3.5 Assess ecosystem health of watersheds in the region	Number of studies completed to increase understanding of ecosystem health
Objective 4: Maintain and enhance water, wastewater, and/or power generation infrastructure efficiency and reliability	
4.1 Systematically and strategically rehabilitate and replace aging water, wastewater delivery and/or wastewater treatment facilities in rural communities, including tribal lands	Number of facilities, including linear length of pipes, replaced and/or repaired
4.2 Ensure fire protection capacity	Volume of additional water provided
4.3 Improve energy efficiency of water systems and uses	Reduction in energy demand necessary for water systems
4.4 Promote use of water efficiency in power generating facilities	Reduction in energy demand of facilities
Objective 5: Address climate variability and/or reduce greenhouse gas emissions	
5.1 Increase understanding of water related greenhouse gas emissions	Number of studies completed to increase understanding of greenhouse emissions
5.2 Manage and modify water systems to respond to increasing climate variability	Number of projects completed
5.3 Use cleaner energy sources to move and treat water	Reduction in greenhouse gas emissions
Objective 6: Increase participation of small and disadvantaged communities in IRWM process	
6.1 Engage regional communities in collaborative water and natural resource related efforts	Number of participants attending public meetings; number of media communications

Objective / Resource Management Strategy	Measurement
6.2 Provide assistance for tribal and DAC consultation, collaboration, and access to funding for water programs and projects	Number of requests for assistance; number of consultations undertaken

Relationship to California Water Plan Update 2009 and Proposition 84 Guidelines

The IRWM Plan objectives and resource management strategies described above are in line with statewide priorities set forth by the California Water Plan (2009 Update) and the Proposition 84 Guidelines.

The California Water Plan lays out a roadmap for water management through the year 2030. This roadmap rests on seven pillars that include:

- Reduce Water Demand
- Improve operational efficiency and transfers
- Increase water supply
- Improve water quality
- Practice resource stewardship
- Improve flood management
- Other strategies

Where appropriate, these California Water Plan categories for integrated regional water management have been applied in the IRWM Plan process. The RWMG recognizes that various strategies are often connected to one another, as well as to other activities. As such, the IRWM Plan looks to find projects that help diversify the water management portfolio for the region as well as create positive synergistic effects that aid in improving the overall water and environmental condition.

The Inyo-Mono IRWM Plan process has been developed and implemented taking into consideration from the onset the Proposition 84 Plan Guidelines. The Inyo-Mono IRWM Plan is consistent with the intent of the Proposition 84 IRWMP Grant Program: to encourage integrated regional strategies for management of water resources and to provide funding for projects that protect communities from drought, protect and improve water quality, and improve local water security by reducing dependency on imported water.

Furthermore, the I-M IRWM Plan objectives and resource management strategies are consistent with the Proposition 84 Grant Program preference for proposals that:

- Include integrated projects with multiple benefits
- Support and improve local and regional water supply reliability, conservation, and efficiency

- Contribute expeditiously and measurably to the long-term attainment and maintenance of water quality standards, including the reduction of non-point source pollution
- Eliminate or significantly reduce pollution in impaired waters and sensitive habitat area
- Develop increased understanding of groundwater conditions and availability
- Undertake watershed protection and management activities, including ecosystem and fisheries restoration and protection
- Include safe drinking water and water quality projects that serve disadvantaged communities.

Relationship to California Water Plan Update 2009 Resource Management Strategies

Table 6-2. Relationship between CA Water Plan 2009 and I-M IRWM Resource Management Strategies

Resource Management Strategies		
State Water Plan Update 2009		Inyo-Mono IRWM Plan
<u>Pillars</u>	<u>Resource Management Strategies</u>	<u>Resource Management Strategies addressed:</u> Yes, No, Not Applicable (Identified from Table 7-1)
Reduce Water Demand	1. Agriculture Water Use Efficiency	1. Yes
	2. Urban Water Use Efficiency	2. Yes
Improve Operational Efficiency and Transfers	1. Conveyance-Delta	1. Not Applicable
	2. Conveyance-Regional/local	2. Yes
	3. System Reoperation	3. Yes
	4. Water Transfers	4. Yes

Resource Management Strategies		
State Water Plan Update 2009		Inyo-Mono IRWM Plan
<u>Pillars</u>	<u>Resource Management Strategies</u>	<u>Resource Management Strategies addressed:</u> Yes, No, Not Applicable (Identified from Table 7-1)
Increase Water Supply	<ol style="list-style-type: none"> 1. Conjunctive Management and Groundwater Storage 2. Desalination 3. Precipitation Enhancement 4. Recycled Municipal Water 5. Surface Storage-CALFED 6. Surface Storage-Regional/Local 	<ol style="list-style-type: none"> 1. Yes 2. Yes 3. Yes 4. Yes 5. Not Applicable 6. Yes
Improved Water Quality	<ol style="list-style-type: none"> 1. Drinking Water-Treatment and Distribution 2. Groundwater Remediation/Aquifer Remediation 3. Matching Quality to Use 4. Pollution Prevention 5. Salt and Salinity Management 6. Urban Runoff Management 	<ol style="list-style-type: none"> 1. Yes 2. Yes 3. Yes 4. Yes 5. Yes 6. Yes
Improved Flood Management	<ol style="list-style-type: none"> 1. Flood Risk Management 	<ol style="list-style-type: none"> 1. Phase II Plan (addressed with Phase I projects)

Resource Management Strategies		
State Water Plan Update 2009		Inyo-Mono IRWM Plan
<u>Pillars</u>	<u>Resource Management Strategies</u>	<u>Resource Management Strategies addressed:</u> Yes, No, Not Applicable (Identified from Table 7-1)
Practice Resources Stewardship	1. Agricultural Lands Stewardship	1. Yes
	2. Economic Incentive	2. Phase II Plan (addressed with Phase I projects)
	3. Ecosystem Restoration	3. Yes
	4. Forest Management	4. Yes
	5. Recharge Area Protection	5. Yes
	6. Water-Dependent Recreation	6. Yes
	7. Watershed Management	7. Yes
Other Strategies	1. Crop Idling for Water Transfers	1. Yes
	2. Dewvaporation or Atmospheric Pressure Desalination	2. No/Not Applicable
	3. Fog Collection	3. No
	4. Irrigated Land Retirement	4. Yes
	5. Rainfed Agriculture	5. Yes
	6. Waterbag Transport/ Storage Technology	6. No

